



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number: pJK1424832159**

**3RP - 1011**

**ENTERPRISE PRODUCTS OPERATING, LLC**

11/3/2016



**3R-1011**

**Release Report/ General  
Correspondence**

**Enterprise SJ**

**Date: Jul-Sep 2016**



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 28 2016

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: Trunk 3A	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: BLM	Mineral Owner: BLM	Serial Number: NM 0011010
--------------------	--------------------	---------------------------

## LOCATION OF RELEASE

Unit Letter A	Section 10	Township 28N	Range 12W	Feet from the 389	North South Line	Feet from the 65	East West Line	County San Juan
------------------	---------------	-----------------	--------------	----------------------	---------------------	---------------------	-------------------	--------------------

Latitude 36.67456 Longitude -108.09921

## NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release <b>3.28 MCF Gas; 10-15 BBLS condensate</b>	Volume Recovered: <b>None</b>
Source of Release: Internal Corrosion of the Pipeline	Date and Hour of Occurrence: <b>4/23/2016 @ 11:45p.m.</b>	Date and Hour of Discovery: <b>4/23/2016 @ 12:40 p.m.</b>
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, Katherina Diemer – BLM, NRC	
By Whom? Thomas Long	Date and Time 4/23/2016 @ 6:29 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\* Fluids released flowed down rills and entered an ephemeral wash.

Describe Cause of Problem and Remedial Action: On April 23, 2016, Enterprise technician discovered a gas leak from on the Trunk 3A pipeline. The pipeline was isolated, blown down, locked out and tagged out. Fluids released flowed down rills and entered an ephemeral wash. Repairs and remediation was complete on April 29, 2016.

Describe Area Affected and Cleanup Action: The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 37 feet long by 16 feet wide by 17 feet deep. Approximately 431 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Field Environmental	Approval Date: <u>7/29/2016</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>7/25/2016</u>	Phone: (713)381-6684	<u>NCS1612331407</u>

\* Attach Additional Sheets If Necessary

62





## **CORRECTIVE ACTION REPORT**

Property:

**Trunk 3A (April 2016) Pipeline Release  
NW 1/4, S10 T28N R12W  
San Juan County, New Mexico**

July 12, 2016

Apex Project No. 725040112152

Prepared for:

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

Prepared by:

A handwritten signature in blue ink, reading 'Raneet Deechilly', written over a horizontal line.

Raneet Deechilly  
Project Scientist

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

Kyle Summers, CPG  
Branch Manager/Senior Geologist



## TABLE OF CONTENTS

---

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Site Description & Background.....	1
1.2	Project Objective.....	1
<b>2.0</b>	<b>SITE RANKING .....</b>	<b>1</b>
<b>3.0</b>	<b>RESPONSE ACTIONS.....</b>	<b>2</b>
3.1	Soil Excavation Activities.....	2
3.2	Soil Sampling Program.....	3
3.3	Laboratory Analytical Methods.....	3
<b>4.0</b>	<b>DATA EVALUATION .....</b>	<b>4</b>
4.1	Confirmation Soil Samples.....	4
<b>5.0</b>	<b>FINDINGS AND RECOMMENDATIONS.....</b>	<b>4</b>
<b>6.0</b>	<b>STANDARD OF CARE, LIMITATIONS, AND RELIANCE .....</b>	<b>5</b>

## LIST OF APPENDICES

<b>Appendix A:</b>	Figure 1 – Topographic Map
	Figure 2 – Site Vicinity Map
	Figure 3 – Site Map with Soil Analytical Results
	Figure 4 – Site Map with Flow Path Soil Analytical Results
<b>Appendix B:</b>	Executed C-138 Solid Waste Acceptance Form
<b>Appendix C:</b>	Photographic Documentation
<b>Appendix D:</b>	Table
<b>Appendix E:</b>	Laboratory Analytical Reports & Chain of Custody Documentation



## **CORRECTIVE ACTION REPORT**

### **Trunk 3A (April 2016) Pipeline Release**

NW 1/4, S10 T28N R12W  
San Juan County, New Mexico

**Apex Project No. 725040112152**

## **1.0 INTRODUCTION**

### **1.1 Site Description & Background**

The Trunk 3A pipeline release Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 10, Township 28 North, Range 12 West, in rural San Juan County, New Mexico (36.67456N, 108.09921W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land managed by the Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas pipeline which traverses the area from north to south.

A surface release on the Trunk 3A pipeline was discovered on April 23, 2016. The surface expression of the release was identified by soil discoloration at the ground surface and two flow paths diverging east and west from the point of release. On April 26, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The release, which resulted from corrosion of the pipeline, was repaired by cleaning and clamping the pipe.

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 action 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 New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized the general site characteristics obtained during the completion of corrective action activities 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 have a Total Ranking Score of 40. This ranking is based on the following:

- No water wells were identified on the Office of the State Engineer (OSE) website. Based on distance to the ephemeral "blue line" wash, the depth to groundwater at the Site may be less than 50 feet below grade surface (bgs), resulting in a ranking of "20" for depth to groundwater.
- 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".
- A portion of the flow path reached a dry ephemeral wash that is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking of "20".

### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

A surface release on the Trunk 3A pipeline was discovered on April 23, 2016. The surface expression of the release was identified by soil discoloration at the ground surface and two flow paths diverging east and west from the point of release. On April 26, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The release, which resulted from corrosion of the pipeline, was repaired by cleaning and clamping the pipe. During corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers, an Apex environmental professional, provided environmental support.

The two flows paths were hand shoveled to remove hydrocarbon-affected soils, and four (4) confirmation flow path soil samples (FP-1 through FP-4) were collected for laboratory analysis to evaluate the initial hand shoveling efforts. Subsequent analytical results indicated that the southern-most portion of the east flow path still exhibited evidence of hydrocarbon impact. The southern-most portion of the west flow path was not sampled during this initial sampling phase due to elevated photoionization detector (PID) readings.

The primary pipeline excavation activities began on April 27, 2016 and were completed on April 29, 2016. Eight (8) confirmation soil samples (S-1 through S-8) were collected from the sidewalls and base of the excavation for laboratory analysis. Analytical results indicated that the north wall



(S-3) still exhibited evidence of hydrocarbon impact, and on May 1, 2016 the north wall was over-excavated to remove remaining hydrocarbon-affected material, and confirmation soil sample (S-9) was collected from the over-excavated portion for laboratory analysis.

On June 8, 2016 the southern-most portions of the east and west flow path were further remediated by hand shoveling (outside of the ROW) and backhoe excavation (within the ROW), and five samples (FP-2R, FP-5 through FP-8) were collected for laboratory analysis.

The final primary excavation measured approximately 37 feet long by 16 feet at the maximum extents, with a total depth of approximately 17 feet bgs. Each flow path measured between 200 and 250 feet in length.

The lithology encountered during the completion of corrective action activities consisted of unconsolidated silty sands underlain by sandy shale/mudstone.

A total of approximately 431 cubic yards of hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 form is provided in Appendix B. The primary excavation was backfilled with clean imported fill and contoured to surrounding grade.

Figure 3 is a site map that indicates the approximate location of the primary excavation in relation to the Enterprise pipelines (Appendix A). Figure 4 is a site map that indicates the approximate location of the flow paths 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 the impacted soils with a PID fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of nine (9) confirmation samples (S-1 through S-9) from the sidewalls and base of the primary excavation and nine (9) confirmation samples (FP-1 through FP-8, and FP-2R) from the flow paths for laboratory analysis. Soils associated with confirmation samples S-3 and FP-2 were removed by over-excavation.

Figure 3 depicts the approximate location of the excavated areas and shows the final confirmation sample locations in relation to the final primary excavation dimensions (Appendix A). Figure 4 depicts the approximate location of the flow paths and shows the final soil sample locations.

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

### **3.3 Laboratory Analytical Methods**

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

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



## 4.0 DATA EVALUATION

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

### 4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final confirmation samples (S-1, S-2, S-4 through C-9, and FP-1, FP-2R, and FP-3 through FP-8) collected from the excavated area and flow paths to the OCD RALs for sites having a total ranking score of "40". Soils associated with confirmation samples S-3 and FP-2 were removed by over-excavation and transported to Envirotech for disposal/treatment, and are not included in the following discussion.

- The laboratory analyses of the confirmation samples collected from the soils remaining in place exhibited benzene concentrations from below the PQLs to 0.032 milligram per kilogram (mg/kg) (S-4), which are below the OCD RAL of 10 mg/kg.
- The laboratory analyses of the confirmation samples collected from the soils remaining in place exhibited total BTEX concentrations ranging from below the PQLs to 0.108 mg/kg (S-4), which are below the OCD RAL of 50 mg/kg.
- The laboratory analyses of confirmation samples collected from the soils remaining in place indicate combined TPH GRO/DRO concentrations ranging from below PQLs to 18 mg/kg (S-6 and FP-1), which are below the OCD RAL of 100 mg/kg for a Site ranking of "40".

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

## 5.0 FINDINGS AND RECOMMENDATIONS

The Trunk 3A pipeline release Site is located within the Enterprise pipeline ROW in the NW ¼ of Section 10, Township 28 North, Range 12 West, in rural San Juan 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 gathering facilities, including the Enterprise natural gas pipeline which traverses the area from north to south.

A surface release on the Trunk 3A pipeline was discovered on April 23, 2016. The surface expression of the release was identified by soil discoloration at the ground surface and two flow paths diverging east and west from the point of release. On April 26, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The release, which resulted from corrosion of the pipeline, was repaired by cleaning and clamping the pipe.

- 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 silty sands underlain by sandy shale/mudstone.
- The final primary excavation measured approximately 37 feet long by 16 feet at the maximum extents, with a total depth of approximately 17 feet bgs. Each flow path measured between 200 and 250 feet in length.
- Prior to backfilling, nine (9) confirmation soil samples from the primary excavation and nine (9) confirmation samples from the flow paths were collected from for laboratory analyses. Soils associated with soil samples S-3 and FP-2 were removed by over-excavation. Based on analytical results, soils remaining in place do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD RALs for a site ranking of "40".
- A total of approximately 431 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to the approximate surrounding grade.

**Based on the laboratory analytical results, no additional investigation or corrective action 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.

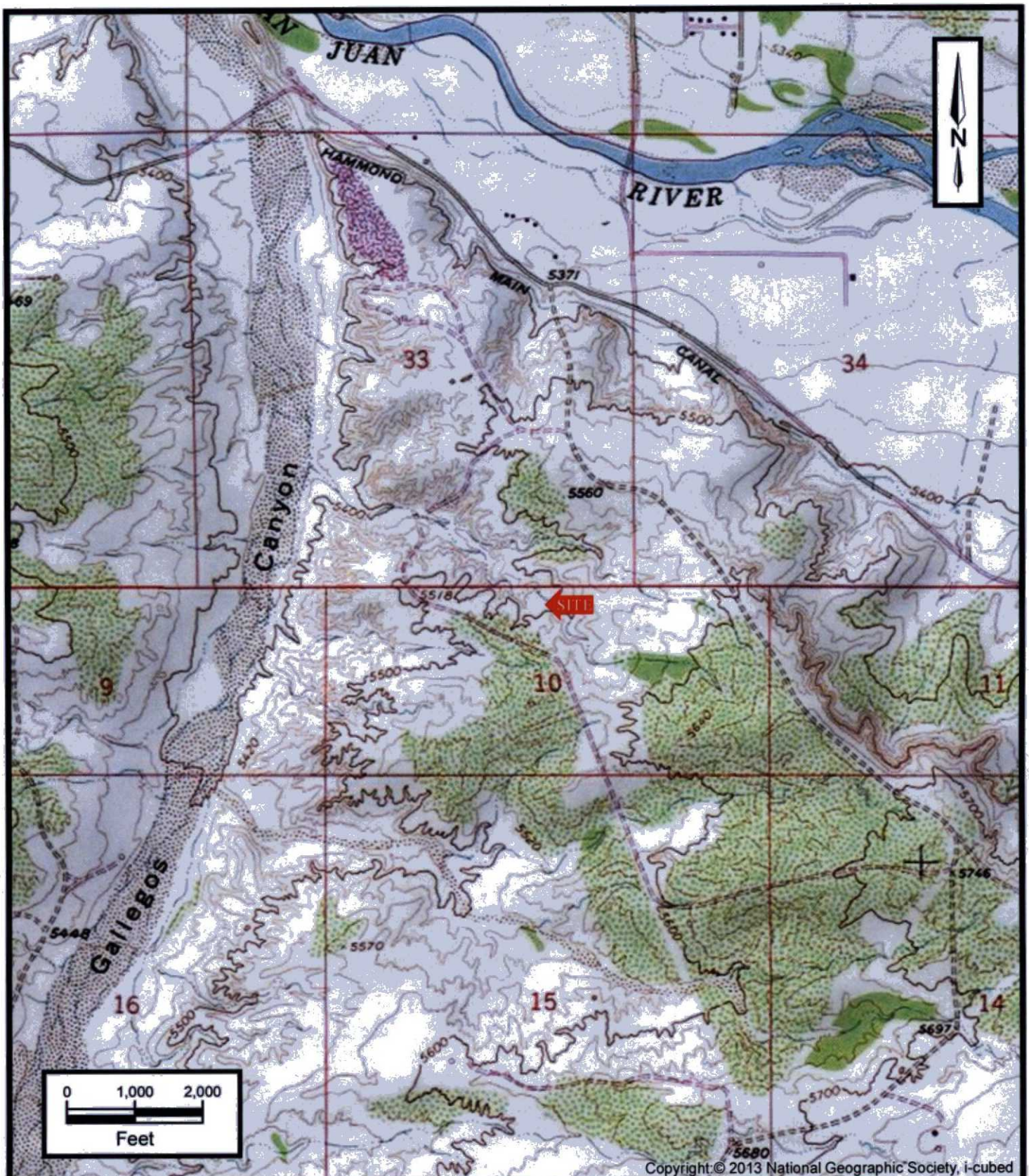


## APPENDIX A

### Figures

---





Trunk 3A (April 2016)  
 Pipeline Release  
 NW1/4 Sec10 T28N R12W  
 San Juan County, New Mexico  
 36.674961N, 108.099413W

Project No. 725040112152

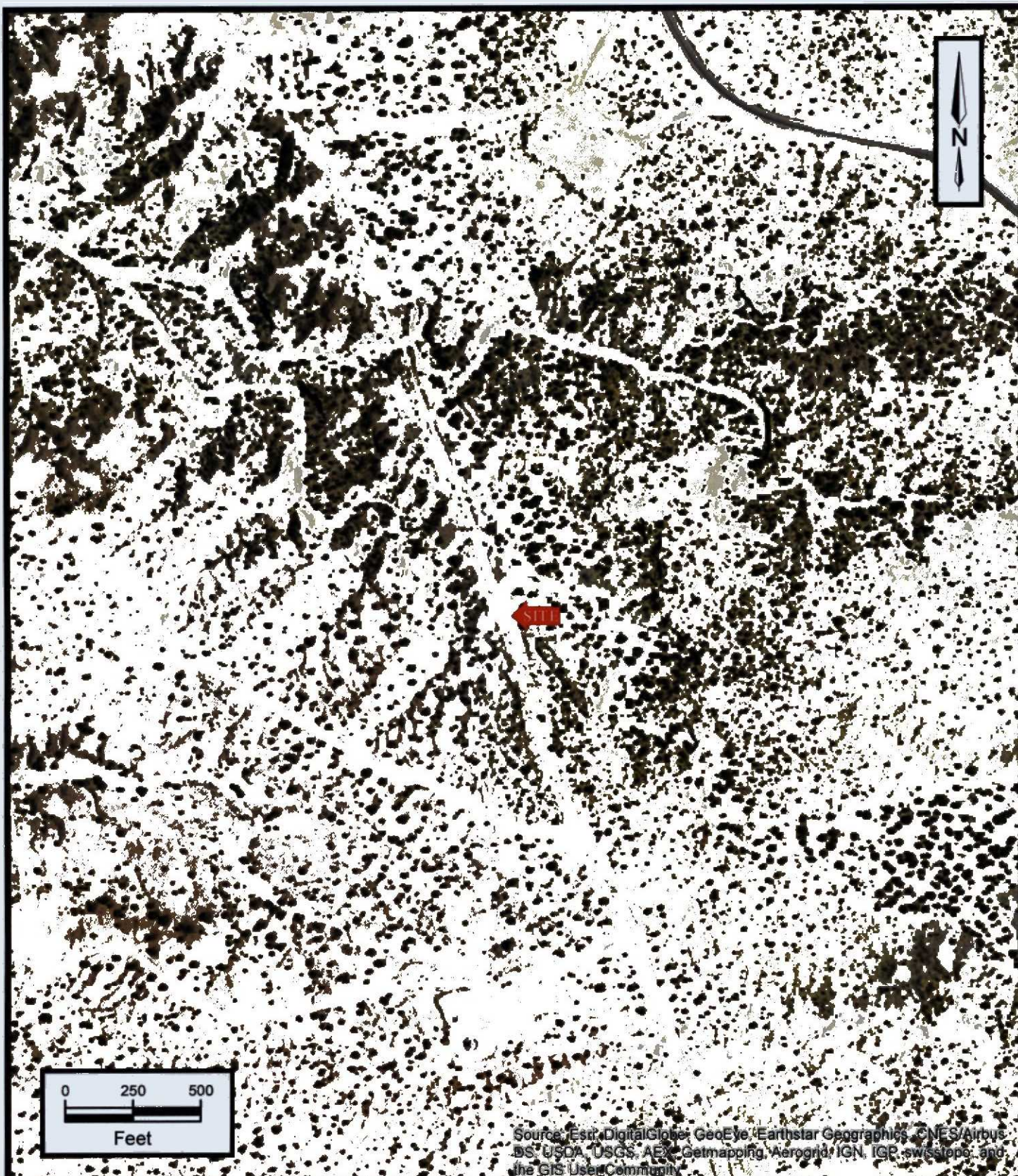


**Apex TITAN, Inc.**  
 608 South Rio Grande, Suite A  
 Aztec, NM 87410  
 Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)  
 A Subsidiary of Apex Companies, LLC

**FIGURE 1**

**Topographic Map**  
 Horn Canyon, NM Quadrangle  
 1965





Trunk 3A (April 2016)  
Pipeline Release  
NW1/4 Sec10 T28N R12W  
San Juan County, New Mexico  
36.674961N, 108.099413W



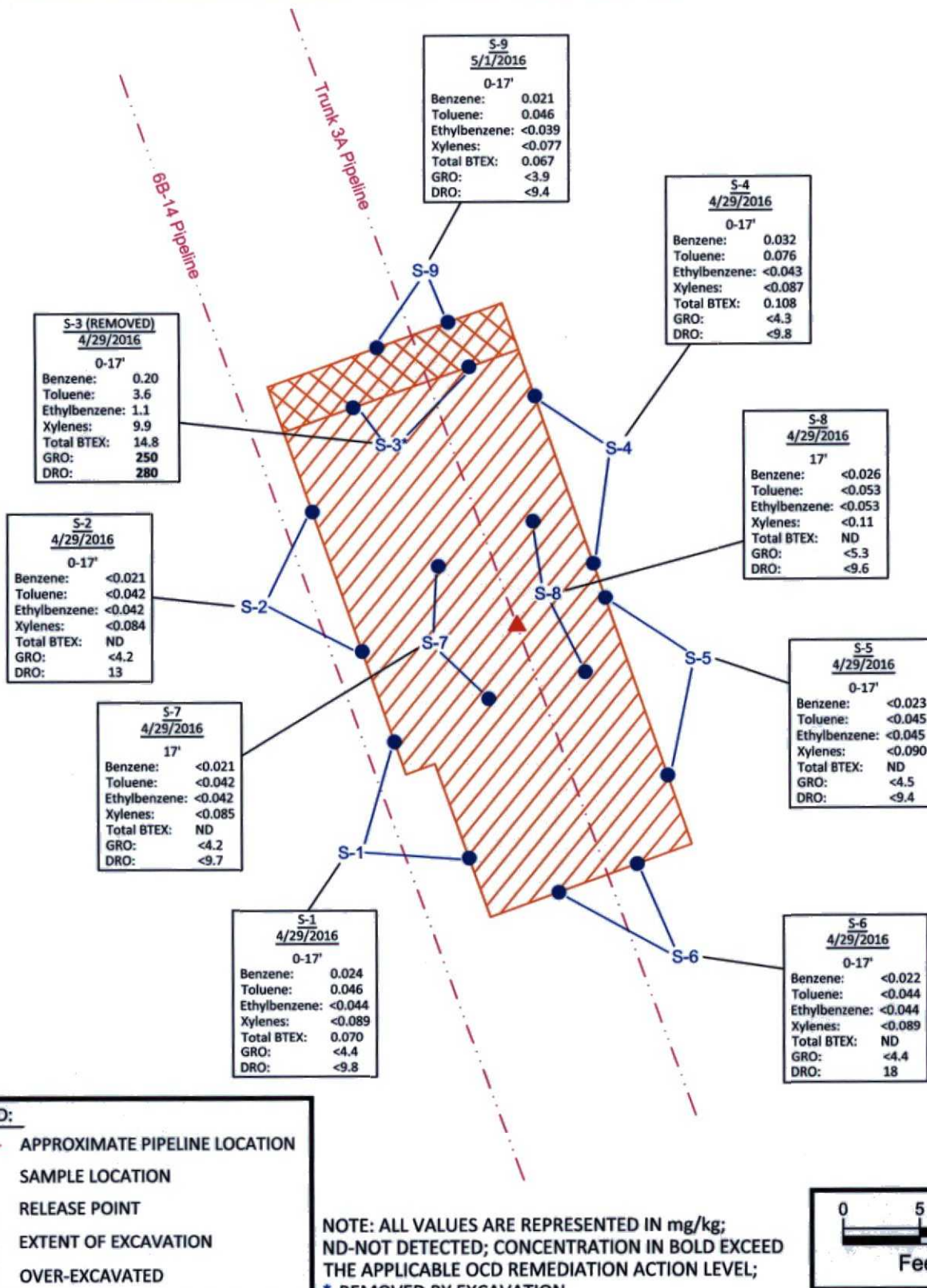
**Apex TITAN, Inc.**  
606 South Rio Grande, Suite A  
Aztec, NM 87410  
Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)  
A Subsidiary of Apex Companies, LLC

**FIGURE 2**

**Site Vicinity Map**

Project No. 725040112152





Trunk 3A (April 2016) Pipeline Release  
NW1/4 Sec10 T28N R12W  
San Juan County, New Mexico  
36.674961N, 108.099413W

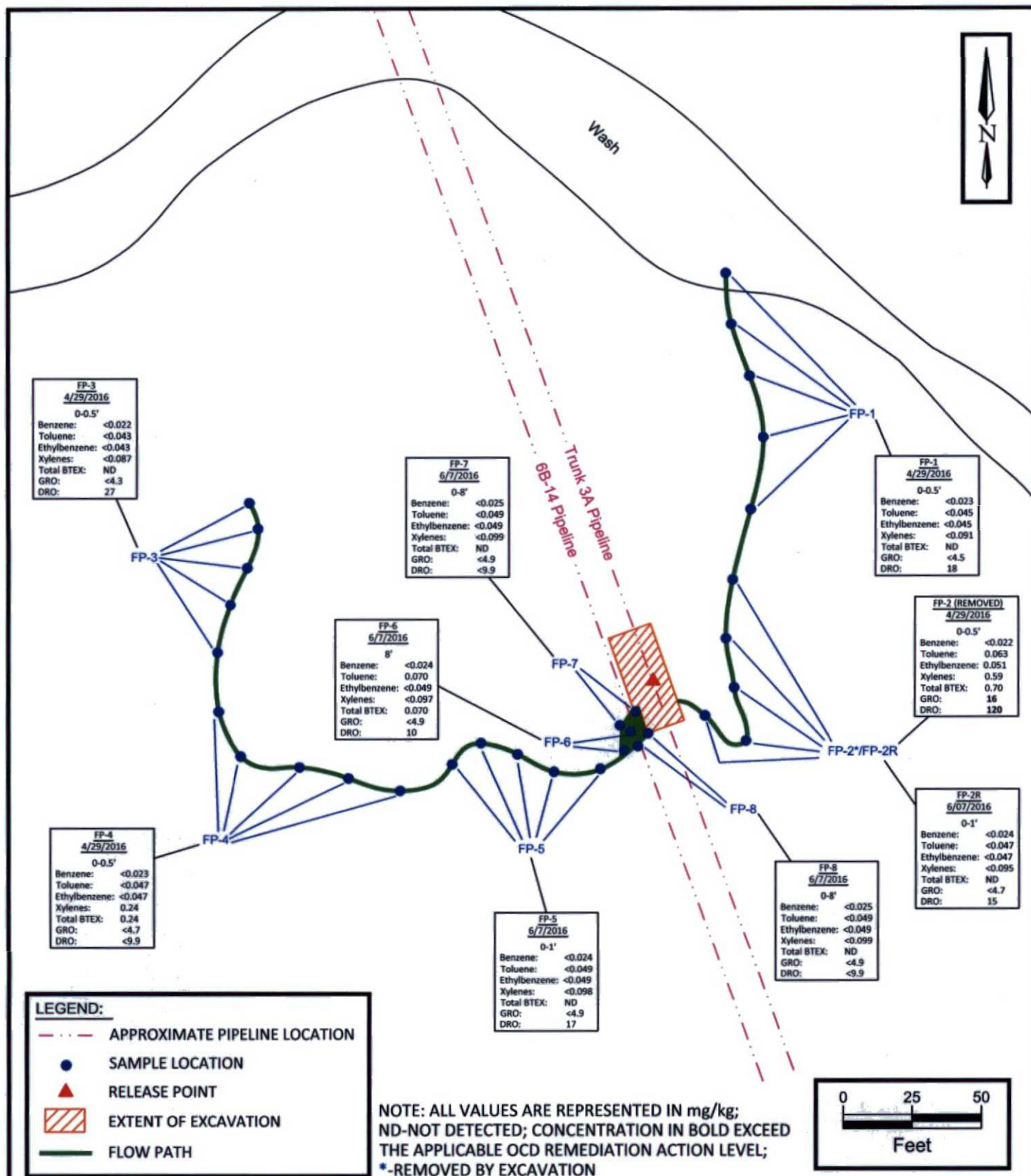


**Apex TITAN, Inc.**  
606 S. Rio Grande, Suite A  
Aztec, New Mexico 87410  
Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)  
A Subsidiary of Apex Companies, LLC

**FIGURE 3**  
**Site Map with  
Soil Analytical Results**

Project No. 725040112152





**Trunk 3A (April 2016) Pipeline Release**  
NW1/4 Sec10 T28N R12W  
San Juan County, New Mexico  
36.674961N, 108.099413W

Project No. 725040112152



**Apex TITAN, Inc.**  
606 S. Rio Grande, Suite A  
Aztec, New Mexico 87410  
Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)  
A Subsidiary of Apex Companies, LLC

**FIGURE 4**

**Site Map with  
Flow Path Soil Analytical Results**



## APPENDIX B

### Executed C-138 Solid Waste Acceptance Forms

---



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

97057-0773

Form C-138  
Revised August 1, 2011

\*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. <b>Generator Name and Address:</b> Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401	<b>April 2016</b>
2. <b>Originating Site:</b> Trunk 3A Pipeline	
3. <b>Location of Material (Street Address, City, State or ULSTR):</b> Unit Letter D Section 10 Township 28 North Range 12 West; 36.67456, -108.09921; San Juan County, NM	
4. <b>Source and Description of Waste:</b> Hydrocarbon impacted soil associated with a pipeline release.	
5. <b>Estimated Volume</b> <u>100</u> yd <sup>3</sup> bbls <b>Known Volume</b> (to be entered by the operator at the end of the haul) <u>395</u> yd <sup>3</sup> bbls	

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

I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC do hereby  
PRINT & SIGN NAME COMPANY NAME  
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 4-26-16, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to  
Generator Signature  
complete the required testing/sign the Generator Waste Testing Certification.

I, Shy Crabbtree, representative for Envirotech, Inc. 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 Contractors, HBL, Dong Fonta, Flying M

**OCD Permitted Surface Waste Management Facility**

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: Greg Crabbtree

TITLE: Environmental Manager DATE: 4/27/16

SIGNATURE: Shy Crabbtree  
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-0615



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

97057-0773

Form C-138  
Revised August 1, 2011

\*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:**  
Trunk 3A Pipeline June 2016
3. **Location of Material (Street Address, City, State or ULSTR):**  
Unit Letter D Section 10 Township 28 North Range 12 West; 36.67456, -108.09921; San Juan County, NM
4. **Source and Description of Waste:** Hydrocarbon impacted soil associated with a pipeline release.
5. **Estimated Volume** 100 <sup>yd<sup>3</sup></sup> bbls **Known Volume (to be entered by the operator at the end of the haul)** 36 <sup>yd<sup>3</sup></sup> bbls

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

I, Thomas Long <sup>Thomas Long</sup> representative or authorized agent for Enterprise Field Services, LLC do hereby  
**PRINT & SIGN NAME** **COMPANY NAME**  
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 <sup>6-6-16</sup>, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to  
**Generator Signature**  
complete the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, representative for Envirotech, Inc. 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 Contractors

**OCD Permitted Surface Waste Management Facility**

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: Greg Crabtree

TITLE: Environmental Manager DATE: 6/7/16

SIGNATURE: Greg Crabtree  
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-0615



## APPENDIX C

### Photographic Documentation

---



**Photograph 1**

View of the release area, facing northwest.



**Photograph 2**

View of in-process corrective action activities, facing northwest.



**Photograph 3**

View of in-process corrective action activities, facing northwest.





**Photograph 4**

View of the final excavation, facing northwest.



**Photograph 5**

View of the east release flow path, facing northwest.



**Photograph 6**

View of the west release flow path, facing south.





### Photograph 7

View of the west release flow path, facing southeast.



### Photograph 8

View of the remediated west flow path, facing southwest.



### Photograph 9

View of the remediated east flow path, facing south.





## APPENDIX D

### Table

---



**TABLE 1**  
Trunk 3A (April 2016) 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			10	NE	NE	NE	50	100	
Samples Removed by Excavation									
FP-2	4.29.16	0 to 0.5	<0.022	0.063	0.051	0.59	0.70	16	120
S-3	4.29.16	0 to 17	0.20	3.6	1.1	9.9	15	250	280
Flow Path Samples									
FP-1	4.29.16	0 to 0.5	<0.023	<0.045	<0.045	<0.091	ND	<4.5	18
FP-2R	6.07.16	0 to 1	<0.024	<0.047	<0.047	<0.095	ND	<4.7	15
FP-3	4.29.16	0 to 0.5	<0.022	<0.043	<0.043	<0.087	ND	<4.3	27
FP-4	4.29.16	0 to 0.5	<0.023	<0.047	<0.047	0.24	0.24	<4.7	<9.9
FP-5	6.07.16	0 to 1	<0.024	<0.049	<0.049	<0.098	ND	<4.9	17
FP-6	6.07.16	8	<0.024	0.070	<0.049	<0.097	0.070	<4.9	10
FP-7	6.07.16	0 to 8	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.9
FP-8	6.07.16	0 to 8	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.9
Excavation Confirmation Samples									
S-1	4.29.16	0 to 17	0.024	0.046	<0.044	<0.089	0.070	<4.4	<9.8
S-2	4.29.16	0 to 17	<0.021	<0.042	<0.042	<0.084	ND	<4.2	13
S-4	4.29.16	0 to 17	0.032	0.076	<0.043	<0.087	0.108	<4.3	<9.8
S-5	4.29.16	0 to 17	<0.023	<0.045	<0.045	<0.090	ND	<4.5	<9.4
S-6	4.29.16	0 to 17	<0.022	<0.044	<0.044	<0.089	ND	<4.4	18
S-7	4.29.16	17	<0.021	<0.042	<0.042	<0.085	ND	<4.2	<9.7
S-8	4.29.16	17	<0.026	<0.053	<0.053	<0.11	ND	<5.3	<9.6
S-9	5.1.16	0 to 17	0.021	0.046	<0.039	<0.077	0.067	<3.9	<9.4

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](http://www.hallenvironmental.com)

May 02, 2016

Kyle Summers

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Trunk 3A April 2016

OrderNo.: 1604D26

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/30/2016 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](http://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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-1

Project: Trunk 3A April 2016

Collection Date: 4/29/2016 9:10:00 AM

Lab ID: 1604D26-001

Matrix: MEOH (SOIL)

Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/30/2016 9:18:52 AM	25085
Surr: DNOP	95.9	70-130		%Rec	1	4/30/2016 9:18:52 AM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	4/30/2016 9:41:24 AM	25083
Surr: BFB	98.9	80-120		%Rec	1	4/30/2016 9:41:24 AM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	0.024	0.022		mg/Kg	1	4/30/2016 9:41:24 AM	25083
Toluene	0.046	0.044		mg/Kg	1	4/30/2016 9:41:24 AM	25083
Ethylbenzene	ND	0.044		mg/Kg	1	4/30/2016 9:41:24 AM	25083
Xylenes, Total	ND	0.089		mg/Kg	1	4/30/2016 9:41:24 AM	25083
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/30/2016 9:41:24 AM	25083

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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** S-2**Project:** Trunk 3A April 2016**Collection Date:** 4/29/2016 9:15:00 AM**Lab ID:** 1604D26-002**Matrix:** MEOH (SOIL)**Received Date:** 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	13	9.3		mg/Kg	1	4/30/2016 9:40:28 AM	25085
Surr: DNOP	92.5	70-130		%Rec	1	4/30/2016 9:40:28 AM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	4/30/2016 10:04:51 AM	25083
Surr: BFB	97.6	80-120		%Rec	1	4/30/2016 10:04:51 AM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	4/30/2016 10:04:51 AM	25083
Toluene	ND	0.042		mg/Kg	1	4/30/2016 10:04:51 AM	25083
Ethylbenzene	ND	0.042		mg/Kg	1	4/30/2016 10:04:51 AM	25083
Xylenes, Total	ND	0.084		mg/Kg	1	4/30/2016 10:04:51 AM	25083
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	4/30/2016 10:04:51 AM	25083

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: APEX TITAN

Client Sample ID: S-3

Project: Trunk 3A April 2016

Collection Date: 4/29/2016 9:20:00 AM

Lab ID: 1604D26-003

Matrix: MEOH (SOIL)

Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	280	9.6		mg/Kg	1	4/30/2016 10:01:56 AM	25085
Surr: DNOP	95.5	70-130		%Rec	1	4/30/2016 10:01:56 AM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	250	20		mg/Kg	5	4/30/2016 10:28:26 AM	25083
Surr: BFB	386	80-120	S	%Rec	5	4/30/2016 10:28:26 AM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	0.20	0.10		mg/Kg	5	4/30/2016 10:28:26 AM	25083
Toluene	3.6	0.20		mg/Kg	5	4/30/2016 10:28:26 AM	25083
Ethylbenzene	1.1	0.20		mg/Kg	5	4/30/2016 10:28:26 AM	25083
Xylenes, Total	9.9	0.41		mg/Kg	5	4/30/2016 10:28:26 AM	25083
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	5	4/30/2016 10:28:26 AM	25083

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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** S-4**Project:** Trunk 3A April 2016**Collection Date:** 4/29/2016 9:25:00 AM**Lab ID:** 1604D26-004**Matrix:** MEOH (SOIL)**Received Date:** 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/30/2016 10:44:58 AM	25085
Surr: DNOP	89.6	70-130		%Rec	1	4/30/2016 10:44:58 AM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/30/2016 10:52:10 AM	25083
Surr: BFB	106	80-120		%Rec	1	4/30/2016 10:52:10 AM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	0.032	0.022		mg/Kg	1	4/30/2016 10:52:10 AM	25083
Toluene	0.076	0.043		mg/Kg	1	4/30/2016 10:52:10 AM	25083
Ethylbenzene	ND	0.043		mg/Kg	1	4/30/2016 10:52:10 AM	25083
Xylenes, Total	ND	0.087		mg/Kg	1	4/30/2016 10:52:10 AM	25083
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/30/2016 10:52:10 AM	25083

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** S-5**Project:** Trunk 3A April 2016**Collection Date:** 4/29/2016 9:30:00 AM**Lab ID:** 1604D26-005**Matrix:** MEOH (SOIL)**Received Date:** 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/30/2016 11:06:40 AM	25085
Surr: DNOP	93.5	70-130		%Rec	1	4/30/2016 11:06:40 AM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	4/30/2016 11:15:55 AM	25083
Surr: BFB	98.6	80-120		%Rec	1	4/30/2016 11:15:55 AM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	4/30/2016 11:15:55 AM	25083
Toluene	ND	0.045		mg/Kg	1	4/30/2016 11:15:55 AM	25083
Ethylbenzene	ND	0.045		mg/Kg	1	4/30/2016 11:15:55 AM	25083
Xylenes, Total	ND	0.090		mg/Kg	1	4/30/2016 11:15:55 AM	25083
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	4/30/2016 11:15:55 AM	25083

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-6

Project: Trunk 3A April 2016

Collection Date: 4/29/2016 9:35:00 AM

Lab ID: 1604D26-006

Matrix: MEOH (SOIL)

Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	18	10		mg/Kg	1	4/30/2016 11:28:40 AM	25085
Surr: DNOP	92.0	70-130		%Rec	1	4/30/2016 11:28:40 AM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	4/30/2016 11:39:36 AM	25083
Surr: BFB	97.9	80-120		%Rec	1	4/30/2016 11:39:36 AM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	4/30/2016 11:39:36 AM	25083
Toluene	ND	0.044		mg/Kg	1	4/30/2016 11:39:36 AM	25083
Ethylbenzene	ND	0.044		mg/Kg	1	4/30/2016 11:39:36 AM	25083
Xylenes, Total	ND	0.089		mg/Kg	1	4/30/2016 11:39:36 AM	25083
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	4/30/2016 11:39:36 AM	25083

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1604D26

Date Reported: 5/2/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-7

Project: Trunk 3A April 2016

Collection Date: 4/29/2016 9:40:00 AM

Lab ID: 1604D26-007

Matrix: MEOH (SOIL)

Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/30/2016 11:50:27 AM	25085
Surr: DNOP	91.6	70-130		%Rec	1	4/30/2016 11:50:27 AM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	4/30/2016 12:03:20 PM	25083
Surr: BFB	100	80-120		%Rec	1	4/30/2016 12:03:20 PM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	4/30/2016 12:03:20 PM	25083
Toluene	ND	0.042		mg/Kg	1	4/30/2016 12:03:20 PM	25083
Ethylbenzene	ND	0.042		mg/Kg	1	4/30/2016 12:03:20 PM	25083
Xylenes, Total	ND	0.085		mg/Kg	1	4/30/2016 12:03:20 PM	25083
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/30/2016 12:03:20 PM	25083

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	W	Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1604D26

Date Reported: 5/2/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-8

Project: Trunk 3A April 2016

Collection Date: 4/29/2016 9:45:00 AM

Lab ID: 1604D26-008

Matrix: MEOH (SOIL)

Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/30/2016 12:12:10 PM	25085
Surr: DNOP	90.5	70-130		%Rec	1	4/30/2016 12:12:10 PM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.3		mg/Kg	1	4/30/2016 12:26:57 PM	25083
Surr: BFB	99.5	80-120		%Rec	1	4/30/2016 12:26:57 PM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.026		mg/Kg	1	4/30/2016 12:26:57 PM	25083
Toluene	ND	0.053		mg/Kg	1	4/30/2016 12:26:57 PM	25083
Ethylbenzene	ND	0.053		mg/Kg	1	4/30/2016 12:26:57 PM	25083
Xylenes, Total	ND	0.11		mg/Kg	1	4/30/2016 12:26:57 PM	25083
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	4/30/2016 12:26:57 PM	25083

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	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604D26

02-May-16

Client: APEX TITAN  
Project: Trunk 3A April 2016

Sample ID	MB-25085	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25085	RunNo:	33883					
Prep Date:	4/30/2016	Analysis Date:	4/30/2016	SeqNo:	1044127	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	9.0		10.00		90.1	70	130			

Sample ID	LCS-25085	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25085	RunNo:	33883					
Prep Date:	4/30/2016	Analysis Date:	4/30/2016	SeqNo:	1044133	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	93.7	65.8	136			
Surr: DNOP	4.4		5.000		87.8	70	130			

Sample ID	1604D26-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	S-1	Batch ID:	25085	RunNo:	33883					
Prep Date:	4/30/2016	Analysis Date:	4/30/2016	SeqNo:	1044531	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	69	9.2	46.00	5.309	138	33.9	141			
Surr: DNOP	4.3		4.600		92.8	70	130			

Sample ID	1604D26-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	S-1	Batch ID:	25085	RunNo:	33883					
Prep Date:	4/30/2016	Analysis Date:	4/30/2016	SeqNo:	1044532	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.6	48.03	5.309	91.1	33.9	141	33.2	20	R
Surr: DNOP	4.3		4.803		89.9	70	130	0	0	

## 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 | W Sample container temperature is out of limit as specified |



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604D26

02-May-16

Client: APEX TITAN

Project: Trunk 3A April 2016

Sample ID	MB-25083	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044407	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	970		1000		97.1	80	120			

Sample ID	LCS-25083	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044408	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	94.7	80	120			
Surr: BFB	1100		1000		106	80	120			

Sample ID	1604D26-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	S-1	Batch ID:	25083	RunNo:	33902					
Prep Date:		Analysis Date:	4/30/2016	SeqNo:	1044410	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.4	22.20	0	98.7	59.3	143			
Surr: BFB	940		888.1		106	80	120			

Sample ID	1604D26-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	S-1	Batch ID:	25083	RunNo:	33902					
Prep Date:		Analysis Date:	4/30/2016	SeqNo:	1044411	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.4	22.20	0	95.5	59.3	143	3.29	20	
Surr: BFB	950		888.1		107	80	120	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  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604D26

02-May-16

Client: APEX TITAN

Project: Trunk 3A April 2016

Sample ID	MB-25083	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044432	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	80	120			

Sample ID	LCS-25083	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044433	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.4	75.3	123			
Toluene	0.86	0.050	1.000	0	85.6	80	124			
Ethylbenzene	0.84	0.050	1.000	0	84.0	82.8	121			
Xylenes, Total	2.5	0.10	3.000	0	83.9	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	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  
W Sample container temperature is out of limit as specified





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: 1604D26

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

4/30/2016 8:03:00 AM

Completed By: Lindsay Mangin

4/30/2016 8:12:46 AM

Reviewed By: NB

4/30/16 08:45

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes			



## CHAIN OF CUSTODY RECORD



Office Location

Aztec

Laboratory:

Address:

Contact:

Phone:

PO/SO#:

Project Manager

Sampler's Name

Sampler's Signature

Proj. No.

Project Name

No/Type of Containers

Matrix	Date	Time	Comp	Gr	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	4/29/16	0910	X		S-1								1604126-001
		0915			S-2								-002
		0920			S-3								-003
		0925			S-4								-004
		0930			S-5								-005
		0935			S-6								-006
		0940			S-7								-007
		0945			S-8								-008

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

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:

Relinquished by (Signature)

Date:

Time:

Received by (Signature)

Date:

Time:

NOTES:

Bill EPROD (Tom Long)  
Non-AFE#N 25372  
Saturday Results

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





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

May 02, 2016

Kyle Summers

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Trunk 3A April 2016

OrderNo.: 1604D27

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/30/2016 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](http://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.

Analytical Report

Lab Order 1604D27

Date Reported: 5/2/2016

CLIENT: APEX TITAN

Client Sample ID: FP-1

Project: Trunk 3A April 2016

Collection Date: 4/29/2016 10:15:00 AM

Lab ID: 1604D27-001

Matrix: MEOH (SOIL)

Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	18	9.2		mg/Kg	1	4/30/2016 2:22:59 PM	25085
Surr: DNOP	93.6	70-130		%Rec	1	4/30/2016 2:22:59 PM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	4/30/2016 4:45:12 PM	25083
Surr: BFB	101	80-120		%Rec	1	4/30/2016 4:45:12 PM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/30/2016 4:45:12 PM	25083
Toluene	ND	0.045		mg/Kg	1	4/30/2016 4:45:12 PM	25083
Ethylbenzene	ND	0.045		mg/Kg	1	4/30/2016 4:45:12 PM	25083
Xylenes, Total	ND	0.091		mg/Kg	1	4/30/2016 4:45:12 PM	25083
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/30/2016 4:45:12 PM	25083

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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** FP-2**Project:** Trunk 3A April 2016**Collection Date:** 4/29/2016 10:20:00 AM**Lab ID:** 1604D27-002**Matrix:** MEOH (SOIL)**Received Date:** 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	120	9.2		mg/Kg	1	4/30/2016 2:44:50 PM	25085
Surr: DNOP	101	70-130		%Rec	1	4/30/2016 2:44:50 PM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	16	4.4		mg/Kg	1	4/30/2016 5:08:34 PM	25083
Surr: BFB	177	80-120	S	%Rec	1	4/30/2016 5:08:34 PM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	4/30/2016 5:08:34 PM	25083
Toluene	0.063	0.044		mg/Kg	1	4/30/2016 5:08:34 PM	25083
Ethylbenzene	0.051	0.044		mg/Kg	1	4/30/2016 5:08:34 PM	25083
Xylenes, Total	0.59	0.088		mg/Kg	1	4/30/2016 5:08:34 PM	25083
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	4/30/2016 5:08:34 PM	25083

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** FP-3**Project:** Trunk 3A April 2016**Collection Date:** 4/29/2016 10:25:00 AM**Lab ID:** 1604D27-003**Matrix:** MEOH (SOIL)**Received Date:** 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	27	9.6		mg/Kg	1	4/30/2016 3:06:35 PM	25085
Surr: DNOP	86.6	70-130		%Rec	1	4/30/2016 3:06:35 PM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/30/2016 5:31:58 PM	25083
Surr: BFB	104	80-120		%Rec	1	4/30/2016 5:31:58 PM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	4/30/2016 5:31:58 PM	25083
Toluene	ND	0.043		mg/Kg	1	4/30/2016 5:31:58 PM	25083
Ethylbenzene	ND	0.043		mg/Kg	1	4/30/2016 5:31:58 PM	25083
Xylenes, Total	ND	0.087		mg/Kg	1	4/30/2016 5:31:58 PM	25083
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	4/30/2016 5:31:58 PM	25083

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: APEX TITAN

Client Sample ID: FP-4

Project: Trunk 3A April 2016

Collection Date: 4/29/2016 10:30:00 AM

Lab ID: 1604D27-004

Matrix: MEOH (SOIL)

Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/30/2016 3:28:26 PM	25085
Surr: DNOP	97.2	70-130		%Rec	1	4/30/2016 3:28:26 PM	25085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/30/2016 5:55:25 PM	25083
Surr: BFB	103	80-120		%Rec	1	4/30/2016 5:55:25 PM	25083
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/30/2016 5:55:25 PM	25083
Toluene	ND	0.047		mg/Kg	1	4/30/2016 5:55:25 PM	25083
Ethylbenzene	ND	0.047		mg/Kg	1	4/30/2016 5:55:25 PM	25083
Xylenes, Total	0.24	0.093		mg/Kg	1	4/30/2016 5:55:25 PM	25083
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	4/30/2016 5:55:25 PM	25083

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604D27

02-May-16

Client: APEX TITAN  
Project: Trunk 3A April 2016

Sample ID	MB-25085	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25085	RunNo:	33883					
Prep Date:	4/30/2016	Analysis Date:	4/30/2016	SeqNo:	1044127	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	9.0		10.00		90.1	70	130			

Sample ID	LCS-25085	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25085	RunNo:	33883					
Prep Date:	4/30/2016	Analysis Date:	4/30/2016	SeqNo:	1044133	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	93.7	65.8	136			
Surr: DNOP	4.4		5.000		87.8	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604D27

02-May-16

Client: APEX TITAN  
Project: Trunk 3A April 2016

Sample ID	MB-25083	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044407	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	970		1000		97.1	80	120			

Sample ID	LCS-25083	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044408	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	94.7	80	120			
Surr: BFB	1100		1000		106	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  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604D27

02-May-16

Client: APEX TITAN  
Project: Trunk 3A April 2016

Sample ID	MB-25083	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044432	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	80	120			

Sample ID	LCS-25083	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25083	RunNo:	33902					
Prep Date:	4/29/2016	Analysis Date:	4/30/2016	SeqNo:	1044433	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.4	75.3	123			
Toluene	0.86	0.050	1.000	0	85.6	80	124			
Ethylbenzene	0.84	0.050	1.000	0	84.0	82.8	121			
Xylenes, Total	2.5	0.10	3.000	0	83.9	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

## 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 | W Sample container temperature is out of limit as specified |





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: 1604D27

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

4/30/2016 8:03:00 AM

Completed By: Lindsay Mangin

4/30/2016 8:19:14 AM

Reviewed By: NG

4/30/16 08:45

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes			



## CHAIN OF CUSTODY RECORD



Office Location

Aztec

Laboratory:

Hall

Address:

ABQ

Contact:

Andy Freeman

Phone:

505-345-3975

Project Manager

K. S. S. S. S.

PO/SO #:

Sampler's Name

Sampler's Signature

Proj. No.

Project Name

Trunk 3A (April 2016)

No/Type of Containers

Matrix	Date	Time	Coop	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOL	AG 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	4/29/16	1015	X		FP-1								1604/27-001
		1020			FP-2								-002
		1025			FP-3								-003
		1030			FP-4								-004
NFS N.I.													

Turn around time ☐ Normal ☐ 25% Rush ☐ 50% Rush ☒ 100% Rush Sat 4/30

Relinquished by (Signature)	Date: 4/29/16	Time: 1408	Received by (Signature)	Date: 4/29/16	Time: 1408
Relinquished by (Signature)	Date: 4/29/16	Time: 1740	Received by (Signature)	Date: 04/30/16	Time: 0803
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:

NOTES

EPROD Tom Long  
NON AFE N25372  
Monday Results

Matrix Container W/W Wastewater VOA - 40 ml vial W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge D - Oil A/G - Amber / Or Glass 1 Liter 250 ml - Glass w/ de 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](http://www.hallenvironmental.com)

May 04, 2016

Kyle Summers

APEX TITAN

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Trunk 3A

OrderNo.: 1605064

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/3/2016 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](http://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



## Analytical Report

Lab Order 1605064

Date Reported: 5/4/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-9

Project: Trunk 3A

Collection Date: 5/1/2016 8:00:00 AM

Lab ID: 1605064-001

Matrix: MEOH (SOIL)

Received Date: 5/3/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/3/2016 12:45:38 PM	25118
Surr: DNOP	74.2	70-130		%Rec	1	5/3/2016 12:45:38 PM	25118
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	5/3/2016 12:35:12 PM	A33952
Surr: BFB	101	80-120		%Rec	1	5/3/2016 12:35:12 PM	A33952
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	0.021	0.019		mg/Kg	1	5/3/2016 12:35:12 PM	B33952
Toluene	0.046	0.039		mg/Kg	1	5/3/2016 12:35:12 PM	B33952
Ethylbenzene	ND	0.039		mg/Kg	1	5/3/2016 12:35:12 PM	B33952
Xylenes, Total	ND	0.077		mg/Kg	1	5/3/2016 12:35:12 PM	B33952
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/3/2016 12:35:12 PM	B33952

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1605064

04-May-16

Client: APEX TITAN

Project: Trunk 3A

Sample ID	LCS-25093	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25093	RunNo:	33949					
Prep Date:	5/2/2016	Analysis Date:	5/3/2016	SeqNo:	1045935	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.2	70	130			

Sample ID	LCS-25118	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25118	RunNo:	33949					
Prep Date:	5/3/2016	Analysis Date:	5/3/2016	SeqNo:	1045936	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	65.8	136			
Surr: DNOP	3.0		5.000		59.5	70	130			S

Sample ID	MB-25093	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25093	RunNo:	33949					
Prep Date:	5/2/2016	Analysis Date:	5/3/2016	SeqNo:	1045937	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		94.6	70	130			

Sample ID	MB-25118	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25118	RunNo:	33949					
Prep Date:	5/3/2016	Analysis Date:	5/3/2016	SeqNo:	1045938	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	7.2		10.00		71.6	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605064

04-May-16

Client: APEX TITAN

Project: Trunk 3A

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A33952	RunNo:	33952					
Prep Date:		Analysis Date:	5/3/2016	SeqNo:	1046270	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	1000		1000		100	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A33952	RunNo:	33952					
Prep Date:		Analysis Date:	5/3/2016	SeqNo:	1046271	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.9	80	120			
Surr: BFB	1100		1000		107	80	120			

Sample ID	MB-25102	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25102	RunNo:	33952					
Prep Date:	5/2/2016	Analysis Date:	5/3/2016	SeqNo:	1046281	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.5	80	120			

Sample ID	LCS-25102	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25102	RunNo:	33952					
Prep Date:	5/2/2016	Analysis Date:	5/3/2016	SeqNo:	1046282	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		107	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  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605064

04-May-16

Client: APEX TITAN

Project: Trunk 3A

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B33952	RunNo:	33952					
Prep Date:		Analysis Date:	5/3/2016	SeqNo:	1046344	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B33952	RunNo:	33952					
Prep Date:		Analysis Date:	5/3/2016	SeqNo:	1046345	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	75.3	123			
Toluene	0.96	0.050	1.000	0	95.5	80	124			
Ethylbenzene	0.91	0.050	1.000	0	90.8	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	89.4	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	MB-25102	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25102	RunNo:	33952					
Prep Date:	5/2/2016	Analysis Date:	5/3/2016	SeqNo:	1046354	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	LCS-25102	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25102	RunNo:	33952					
Prep Date:	5/2/2016	Analysis Date:	5/3/2016	SeqNo:	1046361	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	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  
W Sample container temperature is out of limit as specified





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: 1605064

RcptNo: 1

Received by/date: AT

05/03/16

Logged By: Joe Archuleta

5/3/2016 8:05:00 AM

JK

Completed By: Joe Archuleta

5/3/2016 8:24:00 AM

JK

Reviewed By: IO

05/03/16

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 ☐ # of preserved bottles checked for pH: ☐ ( $<2$  or  $>12$  unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? ☐
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 ☐ 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			



## CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall</u> Address: <u>Albuquerque, NM</u> Contact: <u>A. Freeman</u> Phone: _____ PO/SO #: _____		ANALYSIS REQUESTED  <div style="transform: rotate(-45deg); transform-origin: center;">             8021 BTEX              8015 TPH-GPD/1000           </div>		Lab use only Due Date: <u>1.3</u>  Temp. of coolers when received (C°): <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-around;"> <span>1</span><span>2</span><span>3</span><span>4</span><span>5</span> </div> Page <u>1</u> of <u>1</u>						
		Project Manager <u>K. Summers</u> Sampler's Name <u>Kyle Summers</u> Sampler's Signature <u>[Signature]</u>										
Proj. No. _____		Project Name <u>Trunk 3A</u>		No/Type of Containers _____								
Matrix	Date	Time	Collected	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	9/1/16	0800	X	S-9								1605064 -001
<div style="font-size: 2em; transform: rotate(-15deg); opacity: 0.5;">             N/A              E-V           </div>												
Turn around time: <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush <u>Same day</u>												
Relinquished by (Signature) <u>[Signature]</u>		Date: <u>5/2/16</u>		Time: <u>758</u>		Received by (Signature) <u>[Signature]</u>		Date: <u>5/2/16</u>		Time: <u>758</u>		NOTES:  Bill to Tom Long  Nm APE N25372
Relinquished by (Signature) <u>[Signature]</u>		Date: <u>5/2/16</u>		Time: <u>1837</u>		Received by (Signature) <u>[Signature]</u>		Date: <u>05/03/16</u>		Time: <u>0805</u>		
Relinquished by (Signature) _____		Date: _____		Time: _____		Received by (Signature) _____		Date: _____		Time: _____		
Relinquished by (Signature) _____		Date: _____		Time: _____		Received by (Signature) _____		Date: _____		Time: _____		

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





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

June 13, 2016

Kyle Summers

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Trunk 3A

OrderNo.: 1606345

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/8/2016 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](http://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: FP-2R

Project: Trunk 3A

Collection Date: 6/7/2016 11:00:00 AM

Lab ID: 1606345-001

Matrix: SOIL

Received Date: 6/8/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	15	9.2		mg/Kg	1	6/10/2016 7:16:38 PM	25735
Surr: DNOP	95.9	70-130		%Rec	1	6/10/2016 7:16:38 PM	25735
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/9/2016 3:02:13 PM	25728
Surr: BFB	108	80-120		%Rec	1	6/9/2016 3:02:13 PM	25728
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/9/2016 3:02:13 PM	25728
Toluene	ND	0.047		mg/Kg	1	6/9/2016 3:02:13 PM	25728
Ethylbenzene	ND	0.047		mg/Kg	1	6/9/2016 3:02:13 PM	25728
Xylenes, Total	ND	0.095		mg/Kg	1	6/9/2016 3:02:13 PM	25728
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/9/2016 3:02:13 PM	25728

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 8
	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	W Sample container temperature is out of limit as specified	



**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: APEX TITAN

Client Sample ID: FP-5

Project: Trunk 3A

Collection Date: 6/7/2016 1:00:00 PM

Lab ID: 1606345-002

Matrix: SOIL

Received Date: 6/8/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	17	9.4		mg/Kg	1	6/10/2016 7:38:17 PM	25735
Surr: DNOP	96.9	70-130		%Rec	1	6/10/2016 7:38:17 PM	25735
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/9/2016 5:00:08 PM	25728
Surr: BFB	106	80-120		%Rec	1	6/9/2016 5:00:08 PM	25728
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/9/2016 5:00:08 PM	25728
Toluene	ND	0.049		mg/Kg	1	6/9/2016 5:00:08 PM	25728
Ethylbenzene	ND	0.049		mg/Kg	1	6/9/2016 5:00:08 PM	25728
Xylenes, Total	ND	0.098		mg/Kg	1	6/9/2016 5:00:08 PM	25728
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/9/2016 5:00:08 PM	25728

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** FP-6**Project:** Trunk 3A**Collection Date:** 6/7/2016 1:05:00 PM**Lab ID:** 1606345-003**Matrix:** SOIL**Received Date:** 6/8/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	10	10		mg/Kg	1	6/10/2016 8:00:00 PM	25735
Surr: DNOP	97.9	70-130		%Rec	1	6/10/2016 8:00:00 PM	25735
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/9/2016 5:23:36 PM	25728
Surr: BFB	107	80-120		%Rec	1	6/9/2016 5:23:36 PM	25728
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/9/2016 5:23:36 PM	25728
Toluene	0.070	0.049		mg/Kg	1	6/9/2016 5:23:36 PM	25728
Ethylbenzene	ND	0.049		mg/Kg	1	6/9/2016 5:23:36 PM	25728
Xylenes, Total	ND	0.097		mg/Kg	1	6/9/2016 5:23:36 PM	25728
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/9/2016 5:23:36 PM	25728

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** FP-7**Project:** Trunk 3A**Collection Date:** 6/7/2016 1:10:00 PM**Lab ID:** 1606345-004**Matrix:** SOIL**Received Date:** 6/8/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/10/2016 8:21:52 PM	25735
Surr: DNOP	97.1	70-130		%Rec	1	6/10/2016 8:21:52 PM	25735
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/9/2016 5:47:10 PM	25728
Surr: BFB	106	80-120		%Rec	1	6/9/2016 5:47:10 PM	25728
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/9/2016 5:47:10 PM	25728
Toluene	ND	0.049		mg/Kg	1	6/9/2016 5:47:10 PM	25728
Ethylbenzene	ND	0.049		mg/Kg	1	6/9/2016 5:47:10 PM	25728
Xylenes, Total	ND	0.099		mg/Kg	1	6/9/2016 5:47:10 PM	25728
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/9/2016 5:47:10 PM	25728

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** FP-8**Project:** Trunk 3A**Collection Date:** 6/7/2016 1:15:00 PM**Lab ID:** 1606345-005**Matrix:** SOIL**Received Date:** 6/8/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/10/2016 8:43:29 PM	25735
Surr: DNOP	97.3	70-130		%Rec	1	6/10/2016 8:43:29 PM	25735
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/9/2016 6:10:38 PM	25728
Surr: BFB	103	80-120		%Rec	1	6/9/2016 6:10:38 PM	25728
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/9/2016 6:10:38 PM	25728
Toluene	ND	0.049		mg/Kg	1	6/9/2016 6:10:38 PM	25728
Ethylbenzene	ND	0.049		mg/Kg	1	6/9/2016 6:10:38 PM	25728
Xylenes, Total	ND	0.099		mg/Kg	1	6/9/2016 6:10:38 PM	25728
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	1	6/9/2016 6:10:38 PM	25728

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606345

13-Jun-16

Client: APEX TITAN

Project: Trunk 3A

Sample ID	MB-25735	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25735	RunNo:	34817					
Prep Date:	6/8/2016	Analysis Date:	6/10/2016	SeqNo:	1075995	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		120	70	130			

Sample ID	LCS-25735	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25735	RunNo:	34817					
Prep Date:	6/8/2016	Analysis Date:	6/10/2016	SeqNo:	1075996	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	97.7	62.6	124			
Surr: DNOP	5.0		5.000		100	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606345

13-Jun-16

Client: APEX TITAN

Project: Trunk 3A

Sample ID	MB-25728	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25728	RunNo:	34797					
Prep Date:	6/8/2016	Analysis Date:	6/9/2016	SeqNo:	1074300	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	1000		1000		102	80	120			

Sample ID	LCS-25728	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25728	RunNo:	34797					
Prep Date:	6/8/2016	Analysis Date:	6/9/2016	SeqNo:	1074301	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	80	120			
Surr: BFB	1100		1000		111	80	120			

## 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 | W Sample container temperature is out of limit as specified |



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606345

13-Jun-16

Client: APEX TITAN

Project: Trunk 3A

Sample ID	MB-25728	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25728	RunNo:	34797					
Prep Date:	6/8/2016	Analysis Date:	6/9/2016	SeqNo:	1074316	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	LCS-25728	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25728	RunNo:	34797					
Prep Date:	6/8/2016	Analysis Date:	6/9/2016	SeqNo:	1074317	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	75.3	123			
Toluene	0.99	0.050	1.000	0	98.9	80	124			
Ethylbenzene	0.96	0.050	1.000	0	95.8	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	95.6	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	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  
W Sample container temperature is out of limit as specified



## Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1606345

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

6/8/2016 8:00:00 AM

Completed By: Ashley Gallegos

6/8/2016 9:06:32 AM

Reviewed By:

### 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?

Client

### Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



## CHAIN OF CUSTODY RECORD

Office Location Aztec, NMLaboratory: Hall EnvironmentalAddress: Albuquerque, NMContact: A. Freeman

Phone: \_\_\_\_\_

PO/SO #: \_\_\_\_\_

Project Manager K. Summers

Sampler's Name

Ranee Deechilly / Chad D'Apunti

Sampler's Signature

Proj. No.

Project Name

No/Type of Containers

Thunk 3A

Matrix	Date	Time	CO d	bar-G	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1 L	250 ml	Glass Jar	P/O
S	6/7/16	1100			FP-2R						1	
S	6/7/16	1300			FP-5						1	
S	6/7/16	1305			FP-6						1	
S	6/7/16	1310			FP-7						1	
S	6/7/16	1315			FP-8						1	
<u>NR</u>												

ANALYSIS  
REQUESTEDLab use only  
Due Date:Temp. of coolers  
when received (C°): 10

1 2 3 4 5

Page 1 of 1

Lab Sample ID (Lab Use Only)

1606344-001-002-003-004-005Turn around time ☒ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

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:

Relinquished by (Signature)

Date:

Time:

Received by (Signature)

Date:

Time:

NOTES:

Bill to Tom Long  
EPRDNew AFE N25372

Matrix: WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil  
 Container: VOA - 40 ml vial A/G - Amber / Cr Glass 1 Litr 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

OIL CONS. DIV DIST. 3

JUL 18 2016

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: Trunk MD 16 Inch	Facility Type: Natural Gas Pipeline	
Surface Owner: BLM	Mineral Owner: BLM	Serial Number: SN 080782

**LOCATION OF RELEASE**

Unit Letter <b>B</b>	Section <b>19</b>	Township <b>30N</b>	Range <b>10W</b>	Feet from the <b>1323</b>	<del>North</del> South Line	Feet from the <b>2161</b>	<del>East</del> West Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	------------------------------	--------------------------------	------------------------------	------------------------------	---------------------------

Latitude 36.800683 Longitude -107.923786

**NATURE OF RELEASE**

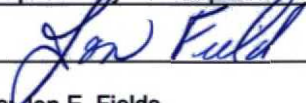
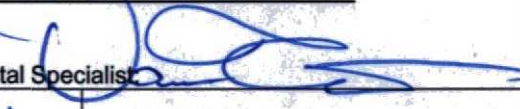
Type of Release: Hydro-Static Test Water	Volume of Release <b>Estimated</b> <b>720 barrels of potable water</b>	Volume Recovered: <b>None</b>
Source of Release: Ruptured Pipeline	Date and Hour of Occurrence: <b>7/5/2016 @ 9:30 a.m.</b>	Date and Hour of Discovery: <b>7/5/2016 @ 9:30 a.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields, NMOCD; Katherina Diemer - BLM	
By Whom? Thomas Long	Date and Time July 5, 2016 @ 3:15 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\* Approximately 720 barrels of potable was released to the ground surface and flowed southwest along the right-of-way entering an ephemeral wash and flowed approximately 1,500 feet.

Describe Cause of Problem and Remedial Action: At approximately 9:30 a.m. On July 5, 2016, a rupture occurred during hydro-static testing of the Trunk MD 16 Inch pipeline. Approximately 720 barrels of potable was released to the ground surface and flowed southwest along the right-of-way entering an ephemeral wash and flowed approximately 1,500 feet.

Describe Area Affected and Cleanup Action: Enterprise collected soil samples from the source and flow path of the release on July 5, 2016 with NMOCD witnessing sample collection. A third party corrective action report will be included 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist 	
Title: Director, Field Environmental	Approval Date: <u>8/4/2016</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>7-14-2016</u> Phone: (713)381-6684	<u>NVF1618848228</u> <u>H2O Samples Sample 8260 &amp; 6010</u>	

\* Attach Additional Sheets If Necessary

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

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

JUL 11 2016

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: Trunk MD 16 Inch	Facility Type: Natural Gas Pipeline
Surface Owner: BLM	Mineral Owner: BLM
Serial Number: SN 080782	

## LOCATION OF RELEASE

Unit Letter L	Section 30	Township 30N	Range 11W	Feet from the 431	North South Line	Feet from the 1047	East West Line	County San Juan
------------------	---------------	-----------------	--------------	----------------------	---------------------	-----------------------	-------------------	--------------------

Latitude 36.788716 Longitude -107.930199

## NATURE OF RELEASE

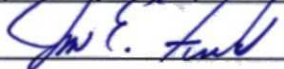

Type of Release: Hydro-Static Test Water	Volume of Release Estimated 892 barrels of potable water	Volume Recovered: None
Source of Release: Ruptured Pipeline	Date and Hour of Occurrence: 6/24/2016 @ 3:06 p.m.	Date and Hour of Discovery: 6/24/2016 @ 3:06 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields, NMOCD	
By Whom? Thomas Long	Date and Time June 24, 2016 @ 6:00 p.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\* Approximately 892 barrels of potable was released to the ground surface and flowed southwest entering an ephemeral wash to the southwest and continued a flowing south approximately 0.35 miles.

Describe Cause of Problem and Remedial Action: At approximately 3:06 p.m. On June 24, 2016, a rupture occurred during hydro-static testing of the Trunk MD 16 Inch pipeline. Approximately 892 barrels of potable was released to the ground surface and flowed southwest entering an ephemeral wash to the southwest and continued a flowing south approximately 0.35 miles.

Describe Area Affected and Cleanup Action: Enterprise collected soil samples from the source and flow path of the release on June 23, 2016 with NMOCD witnessing sample collection. A third party corrective action report will be included 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, Field Environmental	Approval Date: 8/4/2016	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7/8/2016	Phone: (713)381-6684	10571617953104

\* Attach Additional Sheets If Necessary

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

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

OIL CONS. DIV DIST. 3

JUL 18 2016 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: Trunk MD 16 Inch	Facility Type: Natural Gas Pipeline	
Surface Owner: BLM	Mineral Owner: BLM	Serial Number: SN 080782

**LOCATION OF RELEASE**

Unit Letter P	Section 18	Township 30N	Range 10W	Feet from the 991	North/South Line	Feet from the 1263	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	----------------------	---------------------	-----------------------	-------------------	--------------------

Latitude 36.8807050 Longitude -107.920570

**NATURE OF RELEASE**

Type of Release: Hydro-Static Test Water	Volume of Release <b>Estimated</b> 100-120 barrels of potable water	Volume Recovered: <b>None</b>
Source of Release: Ruptured Pipeline	Date and Hour of Occurrence: 7/8/2016 @ 12:51 p.m.	Date and Hour of Discovery: 7/8/2016 @ 12:51 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields, NMOCD; Katherina Diemer, BLM	
By Whom? Thomas Long	Date and Time July 8, 2016 @ 1:59 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: At approximately 5:55 p.m. On June 30, 2016, a rupture occurred during hydro-static testing of the Trunk MD 16 Inch pipeline. Approximately 100-120 barrels of potable was released to the ground surface and flowed southwest along the right-of-way for approximately 500 feet.

Describe Area Affected and Cleanup Action: Approximately 100-120 barrels of potable was released to the ground surface and flowed southwest along the right-of-way for approximately 500 feet. Enterprise collected soil samples from the source and flow path of the release on July 8, 2016 with NMOCD witnessing sample collection. A third party corrective action report will be included 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 E. Fields</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: <i>Vanessa Fields</i>	
Title: Director, Field Environmental	Approval Date: <i>8/4/2016</i>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <i>7-14-2016</i> Phone: (713)381-6684	<i>NVF162727535</i>	

\* Attach Additional Sheets If Necessary

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

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

OIL CONS. DIV DIST. 3

JUL 18 2016 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: Trunk MD 16 Inch	Facility Type: Natural Gas Pipeline	
Surface Owner: BLM	Mineral Owner: BLM	Serial Number: SN 080782

LOCATION OF RELEASE

Unit Letter B	Section 19	Township 30N	Range 10W	Feet from the 1193	North South Line	Feet from the 2118	East West Line	County San Juan
------------------	---------------	-----------------	--------------	-----------------------	---------------------	-----------------------	-------------------	--------------------

Latitude 36.801030 Longitude -107.923660

NATURE OF RELEASE

Type of Release: Hydro-Static Test Water	Volume of Release Estimated 600-700 barrels of potable water	Volume Recovered: None
Source of Release: Ruptured Pipeline	Date and Hour of Occurrence: 7/9/2016 @ 9:45 a.m.	Date and Hour of Discovery: 7/9/2016 @ 9:45 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields, NMOCD; Katherina Diemer - BLM	
By Whom? Thomas Long	Date and Time July 9, 2016 @ 11:00 p.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume	
If a Watercourse was Impacted, Describe Fully.* Approximately 600-700 barrels of potable was released to the ground surface and flowed southwest along the right-of-way entering an ephemeral wash and flowed approximately 1,500 feet.		
Describe Cause of Problem and Remedial Action: At approximately 9:45 a.m. On July 9, 2016, a rupture occurred during hydro-static testing of the Trunk MD 16 Inch pipeline. Approximately 600-700 barrels of potable was released to the ground surface and flowed southwest along the right-of-way entering an ephemeral wash and flowed approximately 1,500 feet.		
Describe Area Affected and Cleanup Action: Enterprise collected soil samples from the source and flow path of the release on July 11, 2016 with NMOCD witnessing sample collection. A third party corrective action report will be included 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>Jon E. Fields</i>	
Title: Director, Field Environmental	Approval Date: 8/4/2016	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7-14-2016	Phone: (713)381-6684	NVFI621729117

\* Attach Additional Sheets If Necessary

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

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

OIL CONS. DIV DIST. 3

JUL 18 2016

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: Trunk MD 16 Inch	Facility Type: Natural Gas Pipeline

Surface Owner: BLM	Mineral Owner: BLM	Serial Number: SN 080782
--------------------	--------------------	--------------------------

LOCATION OF RELEASE

Unit Letter B	Section 19	Township 30N	Range 10W	Feet from the 1193	North South Line	Feet from the 2118	East West Line	County San Juan
------------------	---------------	-----------------	--------------	-----------------------	---------------------	-----------------------	-------------------	--------------------

Latitude 36.0076 Longitude -107.92376

NATURE OF RELEASE

Type of Release: Hydro-Static Test Water	Volume of Release Estimated 600-700 barrels of potable water	Volume Recovered: None
Source of Release: Ruptured Pipeline	Date and Hour of Occurrence: 7/11/2016 @ 9:45 a.m.	Date and Hour of Discovery: 7/11/2016 @ 9:45 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields, NMOCD; Katherina Diemer - BLM	
By Whom? Thomas Long	Date and Time July 11, 2016 @ 10:08 a.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\* Approximately 600-700 barrels of potable was released to the ground surface and flowed southwest along the right-of-way entering an ephemeral wash and flowed approximately 2,000 feet.

Describe Cause of Problem and Remedial Action: At approximately 9:45 a.m. On July 11, 2016, a rupture occurred during hydro-static testing of the Trunk MD 16 Inch pipeline. Approximately 600-700 barrels of potable was released to the ground surface and flowed southwest along the right-of-way entering an ephemeral wash and flowed approximately 2,000 feet.

Describe Area Affected and Cleanup Action: Enterprise collected soil samples from the source and flow path of the release on July 11, 2016 with NMOCD witnessing sample collection. A third party corrective action report will be included 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 E. Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: <i>Vanessa</i>	
Title: Director, Field Environmental	Approval Date: <i>8/4/2016</i>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <i>7-14-2016</i> Phone: (713)381-6684	<i>N/E 162728758</i>	

\* Attach Additional Sheets If Necessary

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

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 10D-1	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: Navajo Nation/NAPI	Mineral Owner: Navajo Nation/NAPI	Serial Number:
-----------------------------------	-----------------------------------	----------------

**LOCATION OF RELEASE**

Unit Letter H	Section 12	Township 26N	Range 12W	Feet from the 2421	North/South Line	Feet from the 1183	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	-----------------------	---------------------	-----------------------	-------------------	--------------------

Latitude 36.503232 Longitude -108.058097

OIL CONS. DIV DIST. 3

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Suspected Internal Corrosion of the Pipeline	Date and Hour of Occurrence: 7/29/2016 @ 10:30 a.m.	Date and Hour of Discovery: 7/29/2016 @ 10:30 a.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, Steve Austin - NNEPA and Mike Freeman - NAPI	
By Whom? Thomas Long	Date and Time 7/29/2016 @ 11:21 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

OIL CONS. DIV DIST. 3

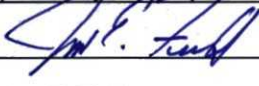

AUG 12 2016

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: On July 29, 2016, Enterprise technician discovered a gas leak from on the Lateral 10D-1 pipeline. The pipeline was isolated, blown down, locked out and tagged out. No fluids were observed on the ground surface. Remediation and repairs are scheduled for August 5, 2016.

Describe Area Affected and Cleanup Action: Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Field Environmental	Approval Date: 8/12/2016	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval: NUF 1622552004	Attached <input type="checkbox"/>
Date: 8/6/2016	Phone: (713)381-6684	Sample Area

For ISTE, Full Range (TP) including  
ORO/MRO

\* Attach Additional Sheets If Necessary

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

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

AUG 15 2016

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: San Juan 28-6 #84	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: BLM	Mineral Owner: BLM	Serial Number: NM 0045298
--------------------	--------------------	---------------------------

### LOCATION OF RELEASE

Unit Letter P	Section 15	Township 27N	Range 6W	Feet from the 808	North <u>South</u> Line	Feet from the 715	<u>East</u> West Line	County San Juan
------------------	---------------	-----------------	-------------	----------------------	----------------------------	----------------------	--------------------------	--------------------

Latitude 36.56931 Longitude -107.44803

### NATURE OF RELEASE

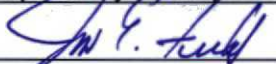

Type of Release: Natural Gas and Condensate	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Suspected Internal Corrosion	Date and Hour of Occurrence: 8/2/2016 @ 1:15 p.m.	Date and Hour of Discovery: 8/2/2016 @ 1:30 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Hobson Sandoval – Vanessa Fields – NMOCD; Katherina Diemer - BLM	
By Whom?	Date and Time August 2, 2016 @ 3:08 p.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\* The gas release site is located in a small ephemeral wash.

Describe Cause of Problem and Remedial Action: On August 2, 2016, Enterprise technicians discovered a gas leak on the San Juan 28-6 #84 pipeline. No fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out.

Describe Area Affected and Cleanup Action: Repairs and remediation are in the scheduling process. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 8/19/2016	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/6/2016	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

NVF1623232479  
Sample Area 8015.8021  
Include m801020



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: Trunk MD 16 Inch Pipeline	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: State of New Mexico	Mineral Owner: State of New Mexico	Serial Number: N/A
------------------------------------	------------------------------------	--------------------

**LOCATION OF RELEASE**

Unit Letter J	Section 36	Township 30N	Range 11W	Feet from the 2203	North <del>South</del> Line	Feet from the 1608	East <del>West</del> Line	County San Juan
------------------	---------------	-----------------	--------------	-----------------------	--------------------------------	-----------------------	------------------------------	--------------------

Latitude 36.767271 Longitude -107.939201

**NATURE OF RELEASE**

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release <b>22,000 MCF Gas; 10-15 BBLs Natural Gas Liquids</b>	Volume Recovered: <b>None</b>
Source of Release: Pipeline Rupture	Date and Hour of Occurrence: <b>6/8/16 @ 1:20 a.m.</b>	Date and Hour of Discovery: <b>6/8/16 1:40 a.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Notification to Brandon Powell - NMOCD; Brandon Foley - SLO	
By Whom? Runell Seale	Date and Time 6/8/2016 @ 10:48 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

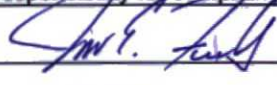
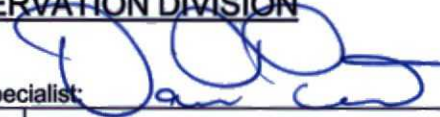
OIL CONS. DIV DIST. 3  
AUG 08 2016

If a Watercourse was Impacted, Describe Fully.\* Fluids were sprayed into a small ephemeral wash to the south.

Describe Cause of Problem and Remedial Action: On June 8, 2016, Enterprise responded to investigate a pressure loss into Val-Verde plant. The area supervisor dispatched technicians to check the Trunk MD pipeline corridor. A gas release was found approximately 2.6 miles north of Val-Verde plant. Enterprise technician isolated, depressurized, locked out and tagged out the pipeline. Gas loss was calculated to be 22,000 MCF.

Describe Area Affected and Cleanup Action: A rupture hole of approximately 80 feet long by 20 feet wide approximately 8 feet deep was created. Fluids from the pipeline rupture were sprayed approximately 350 feet to the south. Repair and remediation activities were completed on June 13, 2016. The residual contaminant mass was removed by mechanical excavation. Approximately 58 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>9/2/2016</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>1/4/2018</u>	Phone: (713)381-6684	<u>NVF 1616732247</u>

\* Attach Additional Sheets If Necessary

52





OIL CONS. DIV DIST. 3  
AUG 08 2016

## CORRECTIVE ACTION REPORT

Property:

**Trunk MD 16" (June 2016) Pipeline Release  
SE 1/4, S36 T30N R11W  
San Juan County, New Mexico**

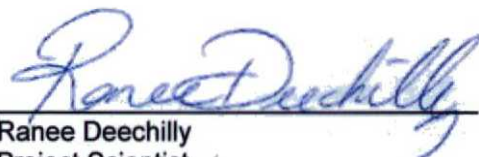
July 18, 2016

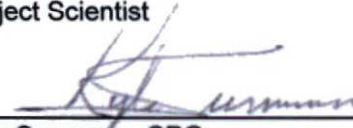
Apex Project No. 725040112166

Prepared for:

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

Prepared by:

  
Raneet Deechilly  
Project Scientist

  
Kyle Summers, CPG  
Branch Manager/Senior Geologist



## TABLE OF CONTENTS

---

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Site Description & Background.....	1
1.2	Project Objective.....	1
<b>2.0</b>	<b>SITE RANKING.....</b>	<b>1</b>
<b>3.0</b>	<b>RESPONSE ACTIONS.....</b>	<b>2</b>
3.1	Soil Excavation Activities.....	2
3.2	Soil Sampling Program.....	3
3.3	Laboratory Analytical Methods.....	3
<b>4.0</b>	<b>DATA EVALUATION .....</b>	<b>4</b>
4.1	Confirmation Soil Samples.....	4
<b>5.0</b>	<b>FINDINGS AND RECOMMENDATIONS.....</b>	<b>4</b>
<b>6.0</b>	<b>STANDARD OF CARE, LIMITATIONS, AND RELIANCE .....</b>	<b>5</b>

## LIST OF APPENDICES

<b>Appendix A:</b>	Figure 1 – Topographic Map
	Figure 2 – Site Vicinity Map
	Figure 3 – Site Map with Excavation Soil Analytical Results
	Figure 4 – Site Map with Surface Soil Analytical Results
<b>Appendix B:</b>	Executed C-138 Solid Waste Acceptance Form
<b>Appendix C:</b>	Photographic Documentation
<b>Appendix D:</b>	Table
<b>Appendix E:</b>	Laboratory Analytical Reports & Chain of Custody Documentation



## CORRECTIVE ACTION REPORT

### Trunk MD 16" (June 2016) Pipeline Release

SE 1/4, S36 T30N R11W

San Juan County, New Mexico

Apex Project No. 725040112166

## 1.0 INTRODUCTION

### 1.1 Site Description & Background

The Trunk MD 16" pipeline release Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southeast (SE) ¼ of Section 36, Township 30 North, Range 11 West in San Juan County, New Mexico (36.76728N, 107.93913W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land managed by the State of New Mexico. The Site is surrounded by native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas pipeline which traverses the area from north to south.

On June 8, 2016, a blowout occurred on the Trunk MD 16" pipeline. On June 9, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The blowout resulted in the loss of natural gas and pipeline liquids from the pipeline (primarily as a silty-mud overspray). The majority of the overspray affected approximately 0.25 acres of the pipeline ROW to the south of the rupture site. The pipeline was subsequently repaired by replacing 87.5 feet of pipe.

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 environmental corrective action was to evaluate/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 New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized the general site characteristics obtained during the completion of corrective action activities 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 have a Total Ranking Score of 40. This ranking is based on the following:

- No water wells were identified on the Office of the State Engineer (OSE) website. Based on the proximity to an ephemeral wash, the depth to groundwater at the Site may be less than 50 feet bgs, resulting in a ranking of "20" for depth to groundwater.
- 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 approximately 110 feet south of an ephemeral wash, which is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking of "20".

### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On June 8, 2016, a blowout occurred on the Trunk MD 16" pipeline. On June 9, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The blowout resulted in the loss of natural gas and pipeline liquids from the pipeline (primarily as a silty-mud overspray). The majority of the overspray affected approximately 0.25 acres of the pipeline ROW to the south of the rupture site. The pipeline was subsequently repaired by replacing 87.5 feet of pipe. During the corrective action activities, Halo Services, Inc., provided heavy equipment and labor support, and Rane Deechilly, an Apex environmental professional, provided environmental support.

The main overspray area measured approximately 165 feet long and 60 feet wide, south of the repair excavation. On June 9, 2016 the overspray area was scraped approximately two (2) to three (3) inches below grade surface (bgs) to remove the dried material from the release. Additionally, two (2) confirmation soil samples (CS-1 and CS-2) were collected for laboratory analysis from the north and south wall of the repair excavation.

On June 13, 2016, eight (8) confirmation soil samples were collected from the repair excavation to complete the analytical profile. In addition, five (5) surface samples (SF-1 through SF-5) were collected from the overspray area.



The final excavation measured approximately 66 feet long by 16 feet wide at the maximum extents, with a total depth of approximately seven (7) feet bgs.

The lithology encountered during the completion of corrective action activities (which were performed almost exclusively within the confines of the original pipe chase) consisted primarily of unconsolidated silty sand. Portions of the pipe chase floor and sidewalls exhibited slightly-cemented silty sands.

A total of approximately 58 cubic yards of hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to the Enterprise pipeline (Appendix A). Figure 4 is a site map that indicates the approximate location of the primary overspray 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 the impacted soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of eight (8) confirmation samples (CS-1 through CS-8) from the sidewalls and base of the final excavation and five (5) surface soil samples for laboratory analysis. Four (4) of the surface soil samples (SF-1 through SF-4) were collected from the primary area of overspray, south of the pipeline rupture. One (1) of the surface soil samples (SF-5) was collected from an area north of the rupture that was not scraped, but exhibited possible signs of overspray. An OCD representative was on-Site during the soil sampling event.

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). Figure 4 is a site map that indicates the approximate location of the primary overspray area and shows the sample locations in relation to the scraped area dimensions (Appendix A).

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

### **3.3 Laboratory Analytical Methods**

The excavation and surface confirmation soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (GRO) using EPA SW-846 Method #8015.

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



## 4.0 DATA EVALUATION

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

### 4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final confirmation soil samples (CS-1 through CS-8, and SF-1 through SF-5) collected from the excavated and overspray area to the OCD RALs for sites having a total ranking score of "40".

- The laboratory analyses of the confirmation samples from soils remaining in place exhibited benzene concentrations below the PQLs, which are below the OCD RAL of 10 mg/kg.
- The laboratory analyses of the confirmation samples from soils remaining in place indicate total BTEX concentrations below the PQLs, which are below the OCD RAL of 50 mg/kg.
- The laboratory analyses of confirmation samples collected from soils remaining in place indicate combined TPH GRO/DRO concentrations ranging from below PQLs to 9.8 mg/kg (CS-2), which are below the OCD RAL of 100 mg/kg for a Site ranking of "40".

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

## 5.0 FINDINGS AND RECOMMENDATIONS

The Trunk MD 16" pipeline release Site is located within the Enterprise pipeline ROW in the SE  $\frac{1}{4}$ , Section 36, Township 30 North, Range 11 West in San Juan County, New Mexico. The Site is located on land managed by State of New Mexico. The Site is surrounded by native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas pipeline which traverses the area from north to south.

On June 8, 2016, a blowout occurred on the Trunk MD 16" pipeline. On June 9, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The blowout resulted in the loss of natural gas and pipeline liquids from the pipeline (primarily as a silty-mud overspray). The majority of the overspray affected approximately 0.25 acres of the pipeline ROW to the south of the rupture site. The pipeline was subsequently repaired by replacing 87.5 feet of pipe.

- 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 main overspray area measured approximately 165 feet long and 60 feet wide, south of the repair excavation.



- The lithology encountered during the completion of corrective action activities (which were performed almost exclusively within the confines of the original pipe chase) consisted primarily of unconsolidated silty sand. Portions of the pipe chase floor and sidewalls exhibited slightly-cemented silty sands.
- The final excavation measure approximately 66 feet long by 16 feet wide at the maximum extents, with a total depth of 7 feet bgs.
- Prior to backfilling, eight (8) confirmation soil samples were collected from the resulting final excavation and five (5) surface soil samples were collected for laboratory analyses. Based on analytical results, soils remaining in place do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD RALs for a site ranking of "40".
- A total of approximately 58 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to the approximate surrounding grade.

**Based on the laboratory analytical results, no additional investigation or corrective action 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 or described herein. 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.

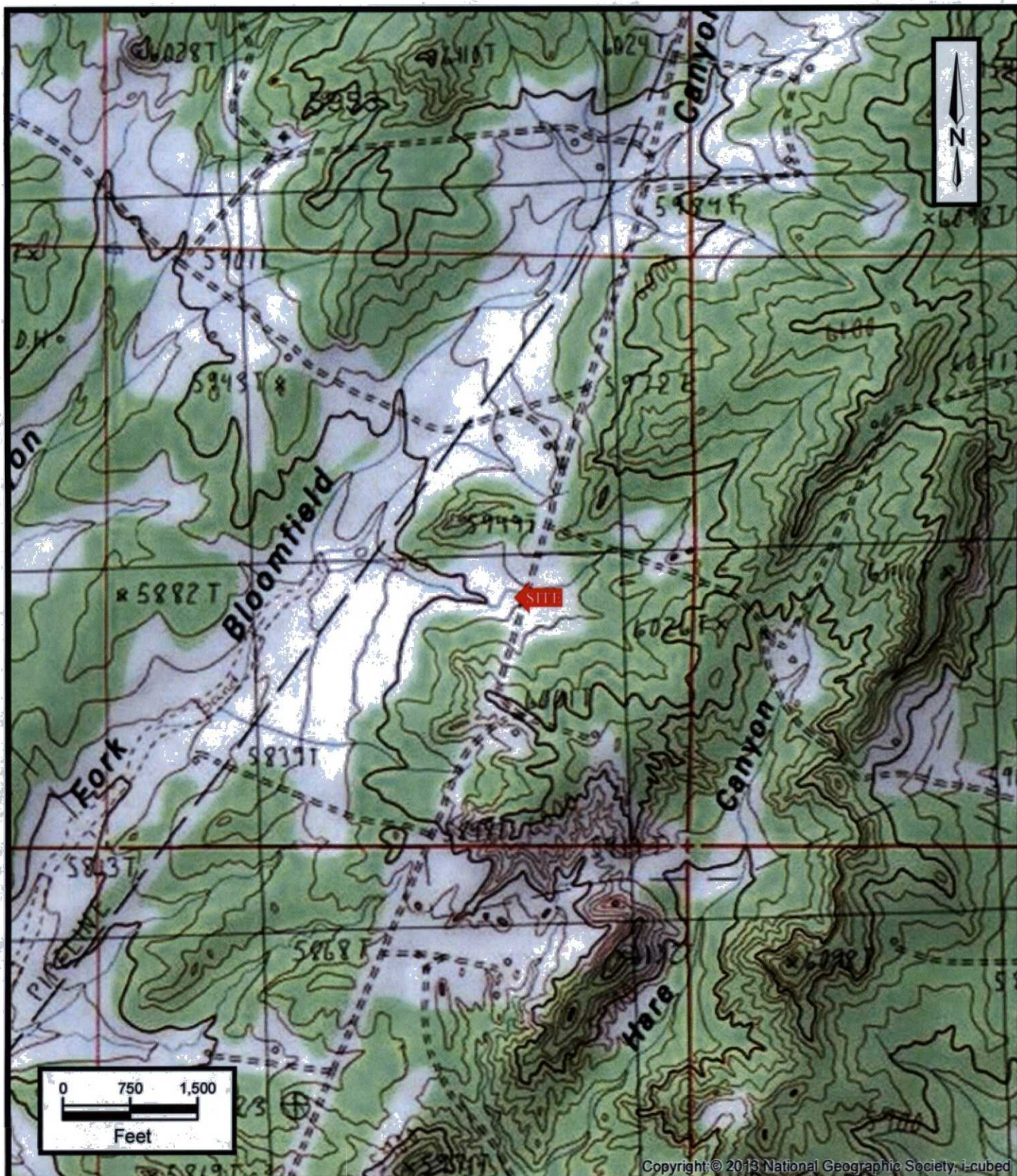


## APPENDIX A

### Figures

---





Copyright © 2013 National Geographic Society, i-cubed

Trunk MD 16" Pipeline Release  
SE1/4 Sec36 T30N R11W  
San Juan County, New Mexico  
36.76728N, 107.93913W



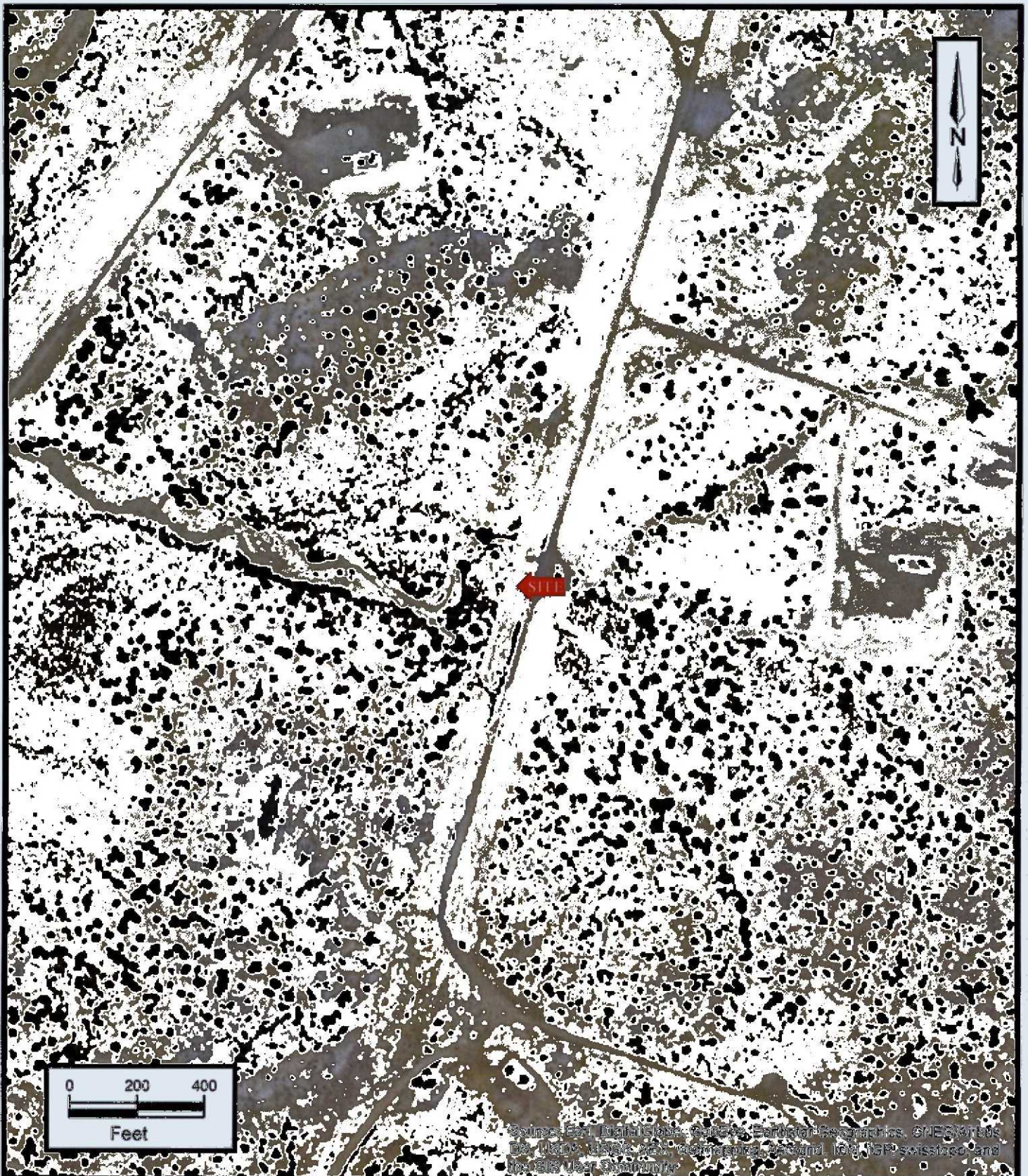
**Apex TITAN, Inc.**  
606 South Rio Grande, Suite A  
Aztec, NM 87410  
Phone: (505) 334-5200  
www.apexcos.com  
A Subsidiary of Apex Companies, LLC

# FIGURE 1

**Topographic Map**  
Aztec, New Mexico Quadrangle  
1985

Project No. 725040112166





Trunk MD 16" Pipeline Release  
SE1/4 Sec36 T30N R11W  
San Juan County, New Mexico  
36.76728N, 107.93913W

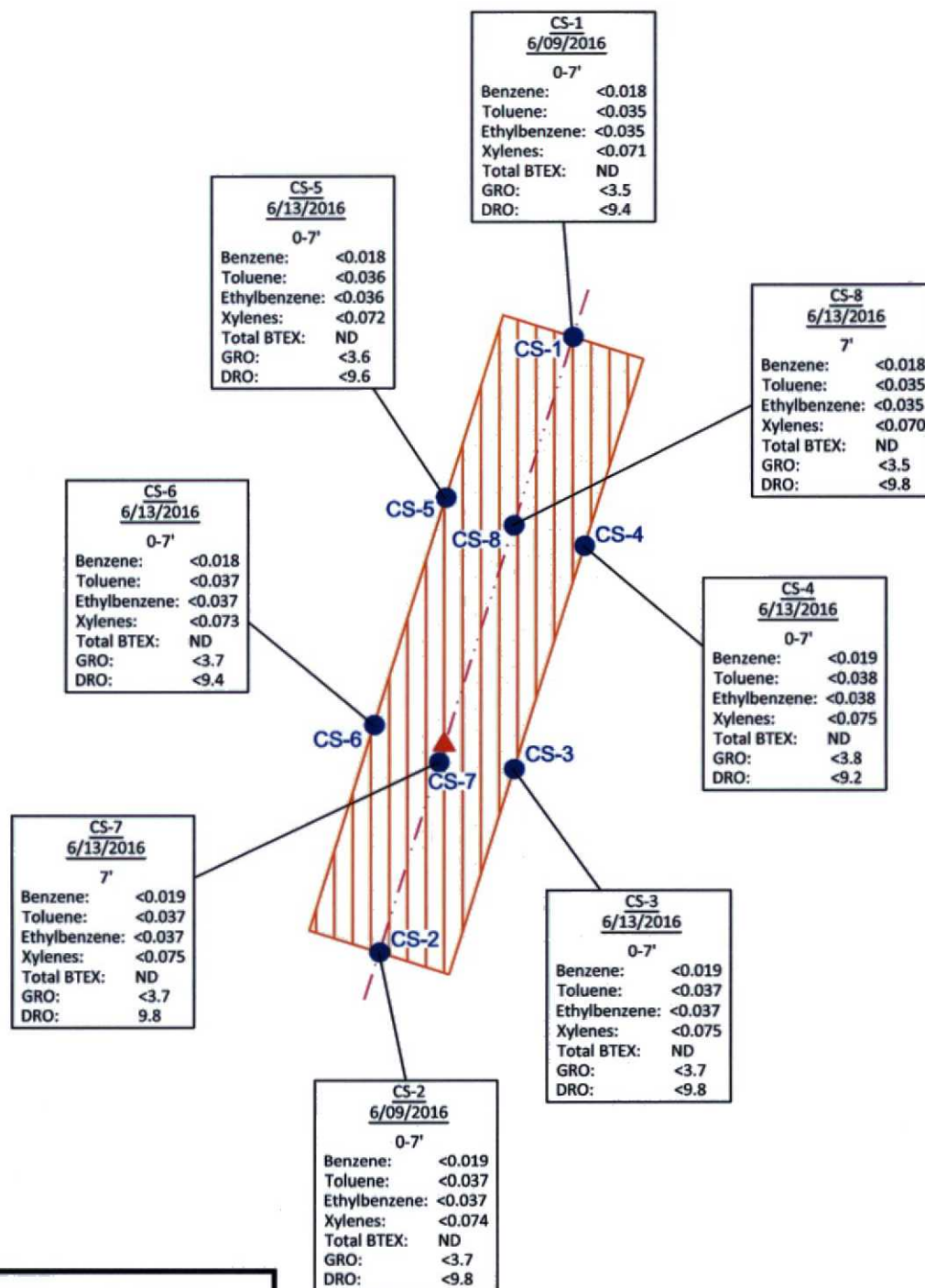
Project No. 725040112166



**Apex TITAN, Inc.**  
606 South Rio Grande, Suite A  
Albuquerque, NM 87110  
Phone: (505) 334-0200  
www.apextitan.com  
A Subsidiary of Apex Companies, LLC

**FIGURE 2**  
**Site Vicinity Map**

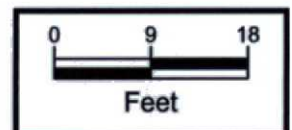




**LEGEND:**

- APPROXIMATE PIPELINE LOCATION
- SAMPLE LOCATION
- RELEASE POINT
- EXTENT OF EXCAVATION

NOTE: ALL VALUES ARE REPRESENTED IN mg/kg;  
ND-NOT DETECTED



Trunk MD 16" Pipeline Release  
SE1/4 Sec36 T30N R11W  
San Juan County, New Mexico  
36.76728N, 107.93913W

Project No. 725040112166



**Apex TITAN, Inc.**

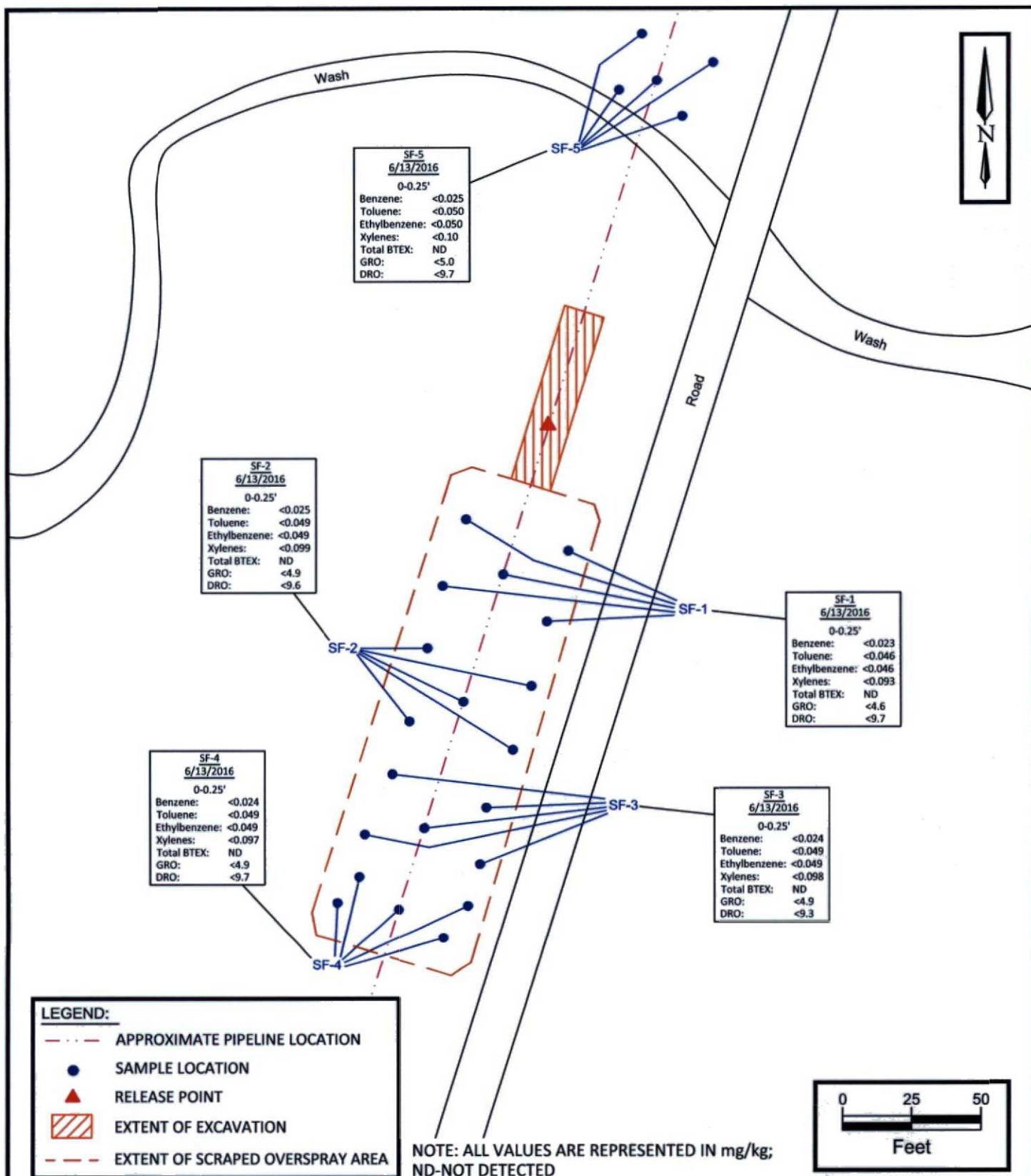
606 S. Rio Grande, Suite A  
Aztec, New Mexico 87410  
Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)

A Subsidiary of Apex Companies, LLC

**FIGURE 3**

**Site Map with  
Excavation Soil  
Analytical Results**





Trunk MD 16" Pipeline Release  
 SE1/4 Sec36 T30N R11W  
 San Juan County, New Mexico  
 36.76728N, 107.93913W

Project No. 725040112166



**Apex TITAN, Inc.**  
 606 S. Rio Grande, Suite A  
 Aztec, New Mexico 87410  
 Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)  
 A Subsidiary of Apex Companies, LLC

**FIGURE 4**

**Site Map with  
 Surface Soil Analytical Results**



## **APPENDIX B**

### **Executed C-138 Solid Waste Acceptance Form**

---



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

97057-0777

Form C-138  
Revised August 1, 2011

\*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:**  
Trunk MD Pipeline
3. **Location of Material (Street Address, City, State or ULSTR):**  
Unit Letter J Section 36 Township 30 North Range 11 West; 36.768455,-107.938499; San Juan County, NM
4. **Source and Description of Waste:** Hydrocarbon impacted soil associated with a pipeline release.
5. **Estimated Volume** 100 yd<sup>3</sup> bbls **Known Volume (to be entered by the operator at the end of the haul)** 58 yd<sup>3</sup> bbls

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

- I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC do hereby  
**PRINT & SIGN NAME** **COMPANY NAME**  
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 6-9-16, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to  
**Generator Signature**  
complete the required testing/sign the Generator Waste Testing Certification.

I, [Signature] representative for Envirotech, Inc. 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:** Halo

**OCD Permitted Surface Waste Management Facility**

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: Greg Crabtree TITLE: Env. Manager DATE: 6/9/16

SIGNATURE: [Signature] TELEPHONE NO.: 505-632-0615

Surface Waste Management Facility Authorized Agent



## APPENDIX C

### Photographic Documentation

---



**Photograph 1**

View of the blowout "crater", facing southwest.



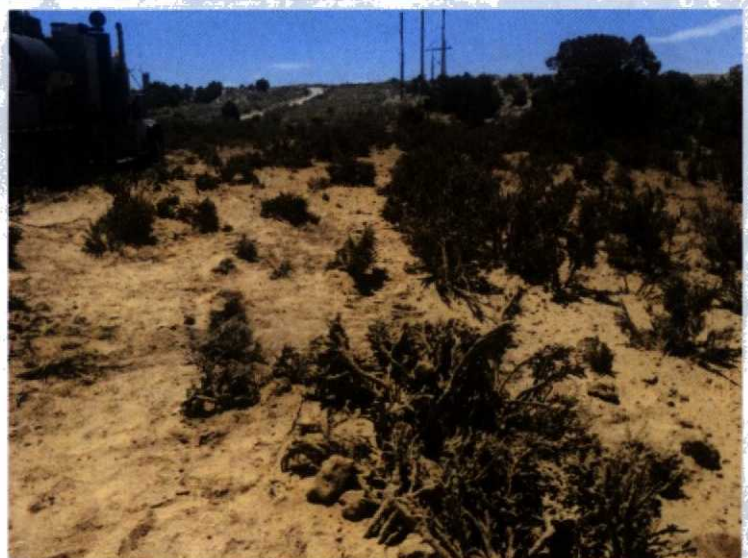
**Photograph 2**

View of the blowout "crater", facing northeast.



**Photograph 3**

View of the overspray area, facing southwest.





**Photograph 4**

View of the in-process corrective action activities, facing southwest.

**Photograph 5**

View of the final excavation and repaired pipeline, facing southwest.





## APPENDIX D

### Table

---



**TABLE 1**  
**Trunk MD 16" (June 2016) 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	
Excavation Confirmation Samples									
CS-1	6.09.16	0 to 7	<0.018	<0.035	<0.035	<0.071	ND	<3.5	<9.4
CS-2	6.09.16	0 to 7	<0.019	<0.037	<0.037	<0.074	ND	<3.7	<9.8
CS-3	6.13.16	0 to 7	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<9.8
CS-4	6.13.16	0 to 7	<0.019	<0.038	<0.038	<0.075	ND	<3.8	<9.2
CS-5	6.13.16	0 to 7	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<9.6
CS-6	6.13.16	0 to 7	<0.018	<0.037	<0.037	<0.073	ND	<3.7	<9.4
CS-7	6.13.16	7	<0.019	<0.037	<0.037	<0.075	ND	<3.7	9.8
CS-8	6.13.16	7	<0.018	<0.035	<0.035	<0.070	ND	<3.5	<9.8
Surface Samples									
SF-1	6.13.16	0 to 0.25	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<9.7
SF-2	6.13.16	0 to 0.25	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.6
SF-3	6.13.16	0 to 0.25	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.3
SF-4	6.13.16	0 to 0.25	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.7
SF-5	6.13.16	0 to 0.25	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.7

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](http://www.hallenvironmental.com)

June 17, 2016

Kyle Summers

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Trunk MD16" June 2016

OrderNo.: 1606710

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/14/2016 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](http://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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



**Analytical Report**

Lab Order 1606710

Date Reported: 6/17/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** SF-1**Project:** Trunk MD16" June 2016**Collection Date:** 6/13/2016 2:30:00 PM**Lab ID:** 1606710-001**Matrix:** SOIL**Received Date:** 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/16/2016 9:02:54 AM	25834
Surr: DNOP	107	70-130		%Rec	1	6/16/2016 9:02:54 AM	25834
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/15/2016 8:20:36 PM	25846
Surr: BFB	108	80-120		%Rec	1	6/15/2016 8:20:36 PM	25846
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	6/15/2016 8:20:36 PM	25846
Toluene	ND	0.046		mg/Kg	1	6/15/2016 8:20:36 PM	25846
Ethylbenzene	ND	0.046		mg/Kg	1	6/15/2016 8:20:36 PM	25846
Xylenes, Total	ND	0.093		mg/Kg	1	6/15/2016 8:20:36 PM	25846
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	6/15/2016 8:20:36 PM	25846

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# Analytical Report

Lab Order 1606710

Date Reported: 6/17/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: SF-2

Project: Trunk MD16" June 2016

Collection Date: 6/13/2016 2:40:00 PM

Lab ID: 1606710-002

Matrix: SOIL

Received Date: 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/16/2016 9:24:44 PM	25834
Surr: DNOP	100	70-130		%Rec	1	6/16/2016 9:24:44 PM	25834
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2016 8:44:00 PM	25846
Surr: BFB	109	80-120		%Rec	1	6/15/2016 8:44:00 PM	25846
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/15/2016 8:44:00 PM	25846
Toluene	ND	0.049		mg/Kg	1	6/15/2016 8:44:00 PM	25846
Ethylbenzene	ND	0.049		mg/Kg	1	6/15/2016 8:44:00 PM	25846
Xylenes, Total	ND	0.099		mg/Kg	1	6/15/2016 8:44:00 PM	25846
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/15/2016 8:44:00 PM	25846

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	W	Sample container temperature is out of limit as specified



**Analytical Report**

Lab Order 1606710

Date Reported: 6/17/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** SF-3**Project:** Trunk MD16" June 2016**Collection Date:** 6/13/2016 2:50:00 PM**Lab ID:** 1606710-003**Matrix:** SOIL**Received Date:** 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/16/2016 9:53:04 PM	25834
Surr: DNOP	102	70-130		%Rec	1	6/16/2016 9:53:04 PM	25834
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2016 9:07:32 PM	25846
Surr: BFB	106	80-120		%Rec	1	6/15/2016 9:07:32 PM	25846
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/15/2016 9:07:32 PM	25846
Toluene	ND	0.049		mg/Kg	1	6/15/2016 9:07:32 PM	25846
Ethylbenzene	ND	0.049		mg/Kg	1	6/15/2016 9:07:32 PM	25846
Xylenes, Total	ND	0.098		mg/Kg	1	6/15/2016 9:07:32 PM	25846
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/15/2016 9:07:32 PM	25846

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** SF-4**Project:** Trunk MD16" June 2016**Collection Date:** 6/13/2016 3:00:00 PM**Lab ID:** 1606710-004**Matrix:** SOIL**Received Date:** 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/16/2016 10:21:36 PM	25834
Surr: DNOP	92.7	70-130		%Rec	1	6/16/2016 10:21:36 PM	25834
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2016 9:31:02 PM	25846
Surr: BFB	107	80-120		%Rec	1	6/15/2016 9:31:02 PM	25846
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/15/2016 9:31:02 PM	25846
Toluene	ND	0.049		mg/Kg	1	6/15/2016 9:31:02 PM	25846
Ethylbenzene	ND	0.049		mg/Kg	1	6/15/2016 9:31:02 PM	25846
Xylenes, Total	ND	0.097		mg/Kg	1	6/15/2016 9:31:02 PM	25846
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/15/2016 9:31:02 PM	25846

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1606710

Date Reported: 6/17/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: SF-5

Project: Trunk MD16" June 2016

Collection Date: 6/13/2016 3:10:00 PM

Lab ID: 1606710-005

Matrix: SOIL

Received Date: 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/16/2016 1:53:10 PM	25834
Surr: DNOP	89.2	70-130		%Rec	1	6/16/2016 1:53:10 PM	25834
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/15/2016 9:54:32 PM	25846
Surr: BFB	107	80-120		%Rec	1	6/15/2016 9:54:32 PM	25846
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/15/2016 9:54:32 PM	25846
Toluene	ND	0.050		mg/Kg	1	6/15/2016 9:54:32 PM	25846
Ethylbenzene	ND	0.050		mg/Kg	1	6/15/2016 9:54:32 PM	25846
Xylenes, Total	ND	0.10		mg/Kg	1	6/15/2016 9:54:32 PM	25846
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/15/2016 9:54:32 PM	25846

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606710

17-Jun-16

Client: APEX TITAN

Project: Trunk MD16" June 2016

Sample ID	MB-25834	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25834	RunNo:	34958					
Prep Date:	6/14/2016	Analysis Date:	6/16/2016	SeqNo:	1080383	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		101	70	130			

Sample ID	LCS-25834	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25834	RunNo:	34958					
Prep Date:	6/14/2016	Analysis Date:	6/16/2016	SeqNo:	1080385	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	91.0	62.6	124			
Surr: DNOP	4.2		5.000		84.7	70	130			

Sample ID	1606710-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SF-1	Batch ID:	25834	RunNo:	34960					
Prep Date:	6/14/2016	Analysis Date:	6/16/2016	SeqNo:	1080389	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	9.7	48.26	4.015	106	33.9	141			
Surr: DNOP	4.4		4.826		92.2	70	130			

Sample ID	1606710-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SF-1	Batch ID:	25834	RunNo:	34960					
Prep Date:	6/14/2016	Analysis Date:	6/16/2016	SeqNo:	1080391	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	49.90	4.015	97.6	33.9	141	4.72	20	
Surr: DNOP	4.4		4.990		88.1	70	130	0	0	

## 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	W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606710

17-Jun-16

Client: APEX TITAN

Project: Trunk MD16" June 2016

Sample ID	MB-25846	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25846	RunNo:	34934					
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079435	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	1100		1000		107	80	120			

Sample ID	LCS-25846	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25846	RunNo:	34934					
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079436	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.1	80	120			
Surr: BFB	1100		1000		114	80	120			

Sample ID	1606710-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SF-2	Batch ID:	25846	RunNo:	34934					
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079442	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.68	0	91.6	59.3	143			
Surr: BFB	1200		987.2		119	80	120			

Sample ID	1606710-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SF-2	Batch ID:	25846	RunNo:	34934					
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079443	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.58	0	92.0	59.3	143	4.10	20	
Surr: BFB	1100		943.4		118	80	120	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  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606710

17-Jun-16

Client: APEX TITAN

Project: Trunk MD16" June 2016

Sample ID	MB-25846	SampType:	MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID:	25846	RunNo: 34934						
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079465	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
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-25846	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25846	RunNo:	34934					
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079466	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.9	75.3	123			
Toluene	0.92	0.050	1.000	0	92.0	80	124			
Ethylbenzene	0.92	0.050	1.000	0	92.1	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	92.1	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	1606710-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SF-1	Batch ID:	25846	RunNo:	34934					
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079468	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.023	0.9149	0	94.9	71.5	122			
Toluene	0.89	0.046	0.9149	0	96.9	71.2	123			
Ethylbenzene	0.86	0.046	0.9149	0	94.1	75.2	130			
Xylenes, Total	2.6	0.091	2.745	0	94.3	72.4	131			
Surr: 4-Bromofluorobenzene	1.0		0.9149		109	80	120			

Sample ID	1606710-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SF-1	Batch ID:	25846	RunNo:	34934					
Prep Date:	6/14/2016	Analysis Date:	6/15/2016	SeqNo:	1079469	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9443	0	97.1	71.5	122	5.41	20	
Toluene	0.93	0.047	0.9443	0	98.5	71.2	123	4.75	20	
Ethylbenzene	0.91	0.047	0.9443	0	96.4	75.2	130	5.60	20	
Xylenes, Total	2.7	0.094	2.833	0	96.5	72.4	131	5.41	20	
Surr: 4-Bromofluorobenzene	1.0		0.9443		110	80	120	0	0	

## 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	W Sample container temperature is out of limit as specified



# Sample Log-In Check List

Client Name: **APEX AZTEC**

Work Order Number: **1806710**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

*06/14/16*  
**6/14/2016 7:10:00 AM**

Completed By: **Lindsay Mangin**

**6/14/2016 8:01:36 AM**

Reviewed By:

## 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	1.3	Good	Yes			



## CHAIN OF CUSTODY RECORD


  
**APEX**
Office Location Aztec, NMLaboratory: Hall EnvironmentalAddress: Albuquerque, NMContact: A. Freeman

Phone: \_\_\_\_\_

PO/SO #: \_\_\_\_\_

Project Manager K. Summers

Sampler's Name

Ranee Deechilly

Sampler's Signature

Ranee Deechilly

Proj. No.

Project Name

Trunk MD16" June 2016

No/Type of Containers

Matrix	Date	Time	Comp	Grab	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	6/13/16	1430			SF-1						1		16067-10-001
↓	↓	1440			SF-2						1		-002
↓	↓	1450			SF-3						1		-003
↓	↓	1500			SF-4						1		-004
↓	↓	1510			SF-5						1		-005
<del>NFS</del>													

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

Relinquished by (Signature)

Date:

Time:

Received by (Signature)

Date:

Time:

NOTES:

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:

Bill to Tom Long EPRD  
 AFE A25726

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





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

June 15, 2016

Kyle Summers

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Trunk MD 16" June 2016

OrderNo.: 1606707

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/14/2016 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](http://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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



## Analytical Report

Lab Order 1606707

Date Reported: 6/15/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** CS-3**Project:** Trunk MD 16" June 2016**Collection Date:** 6/13/2016 1:30:00 PM**Lab ID:** 1606707-001**Matrix:** MEOH (SOIL)**Received Date:** 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/14/2016 10:23:55 AM	25830
Surr: DNOP	107	70-130		%Rec	1	6/14/2016 10:23:55 AM	25830
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/14/2016 11:41:22 AM	A34893
Surr: BFB	105	80-120		%Rec	1	6/14/2016 11:41:22 AM	A34893
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	6/14/2016 11:41:22 AM	D34893
Toluene	ND	0.037		mg/Kg	1	6/14/2016 11:41:22 AM	D34893
Ethylbenzene	ND	0.037		mg/Kg	1	6/14/2016 11:41:22 AM	D34893
Xylenes, Total	ND	0.075		mg/Kg	1	6/14/2016 11:41:22 AM	D34893
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/14/2016 11:41:22 AM	D34893

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified
				Page 1 of 9



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1606707

Date Reported: 6/15/2016

CLIENT: APEX TITAN

Client Sample ID: CS-4

Project: Trunk MD 16" June 2016

Collection Date: 6/13/2016 1:40:00 PM

Lab ID: 1606707-002

Matrix: MEOH (SOIL)

Received Date: 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/14/2016 10:45:34 AM	25830
Surr: DNOP	109	70-130		%Rec	1	6/14/2016 10:45:34 AM	25830
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	6/14/2016 12:04:48 PM	A34893
Surr: BFB	106	80-120		%Rec	1	6/14/2016 12:04:48 PM	A34893
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	6/14/2016 12:04:48 PM	D34893
Toluene	ND	0.038		mg/Kg	1	6/14/2016 12:04:48 PM	D34893
Ethylbenzene	ND	0.038		mg/Kg	1	6/14/2016 12:04:48 PM	D34893
Xylenes, Total	ND	0.075		mg/Kg	1	6/14/2016 12:04:48 PM	D34893
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/14/2016 12:04:48 PM	D34893

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	W Sample container temperature is out of limit as specified



# Analytical Report

Lab Order 1606707

Date Reported: 6/15/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: CS-5

Project: Trunk MD 16" June 2016

Collection Date: 6/13/2016 1:50:00 PM

Lab ID: 1606707-003

Matrix: MEOH (SOIL)

Received Date: 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/14/2016 11:07:16 AM	25830
Surr: DNOP	109	70-130		%Rec	1	6/14/2016 11:07:16 AM	25830
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	6/14/2016 12:28:14 PM	A34893
Surr: BFB	105	80-120		%Rec	1	6/14/2016 12:28:14 PM	A34893
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/14/2016 12:28:14 PM	D34893
Toluene	ND	0.036		mg/Kg	1	6/14/2016 12:28:14 PM	D34893
Ethylbenzene	ND	0.036		mg/Kg	1	6/14/2016 12:28:14 PM	D34893
Xylenes, Total	ND	0.072		mg/Kg	1	6/14/2016 12:28:14 PM	D34893
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/14/2016 12:28:14 PM	D34893

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1606707

Date Reported: 6/15/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: CS-6

Project: Trunk MD 16" June 2016

Collection Date: 6/13/2016 2:00:00 PM

Lab ID: 1606707-004

Matrix: MEOH (SOIL)

Received Date: 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/14/2016 11:28:54 AM	25830
Surr: DNOP	111	70-130		%Rec	1	6/14/2016 11:28:54 AM	25830
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/14/2016 12:51:41 PM	A34893
Surr: BFB	106	80-120		%Rec	1	6/14/2016 12:51:41 PM	A34893
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/14/2016 12:51:41 PM	D34893
Toluene	ND	0.037		mg/Kg	1	6/14/2016 12:51:41 PM	D34893
Ethylbenzene	ND	0.037		mg/Kg	1	6/14/2016 12:51:41 PM	D34893
Xylenes, Total	ND	0.073		mg/Kg	1	6/14/2016 12:51:41 PM	D34893
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/14/2016 12:51:41 PM	D34893

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Analytical Report**

Lab Order 1606707

Date Reported: 6/15/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** CS-7**Project:** Trunk MD 16" June 2016**Collection Date:** 6/13/2016 2:10:00 PM**Lab ID:** 1606707-005**Matrix:** MEOH (SOIL)**Received Date:** 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	9.8	9.7		mg/Kg	1	6/14/2016 11:50:38 AM	25830
Surr: DNOP	111	70-130		%Rec	1	6/14/2016 11:50:38 AM	25830
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/14/2016 1:15:08 PM	A34893
Surr: BFB	115	80-120		%Rec	1	6/14/2016 1:15:08 PM	A34893
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	6/14/2016 1:15:08 PM	D34893
Toluene	ND	0.037		mg/Kg	1	6/14/2016 1:15:08 PM	D34893
Ethylbenzene	ND	0.037		mg/Kg	1	6/14/2016 1:15:08 PM	D34893
Xylenes, Total	ND	0.075		mg/Kg	1	6/14/2016 1:15:08 PM	D34893
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/14/2016 1:15:08 PM	D34893

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1606707

Date Reported: 6/15/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: CS-8

Project: Trunk MD 16" June 2016

Collection Date: 6/13/2016 2:20:00 PM

Lab ID: 1606707-006

Matrix: MEOH (SOIL)

Received Date: 6/14/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/14/2016 12:12:15 PM	25830
Surr: DNOP	111	70-130		%Rec	1	6/14/2016 12:12:15 PM	25830
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/14/2016 1:38:29 PM	A34893
Surr: BFB	107	80-120		%Rec	1	6/14/2016 1:38:29 PM	A34893
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/14/2016 1:38:29 PM	D34893
Toluene	ND	0.035		mg/Kg	1	6/14/2016 1:38:29 PM	D34893
Ethylbenzene	ND	0.035		mg/Kg	1	6/14/2016 1:38:29 PM	D34893
Xylenes, Total	ND	0.070		mg/Kg	1	6/14/2016 1:38:29 PM	D34893
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/14/2016 1:38:29 PM	D34893

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606707

15-Jun-16

Client: APEX TITAN

Project: Trunk MD 16" June 2016

Sample ID	LCS-25830	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25830	RunNo:	34881					
Prep Date:	6/14/2016	Analysis Date:	6/14/2016	SeqNo:	1077397	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	89.4	62.6	124			
Surr: DNOP	4.5		5.000		89.4	70	130			

Sample ID	MB-25830	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25830	RunNo:	34881					
Prep Date:	6/14/2016	Analysis Date:	6/14/2016	SeqNo:	1077398	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	9.4		10.00		93.7	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  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606707

15-Jun-16

Client: APEX TITAN

Project: Trunk MD 16" June 2016

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A34893	RunNo:	34893					
Prep Date:		Analysis Date:	6/14/2016	SeqNo:	1078048	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	1100		1000		106	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A34893	RunNo:	34893					
Prep Date:		Analysis Date:	6/14/2016	SeqNo:	1078049	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.0	80	120			
Surr: BFB	1200		1000		115	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606707

15-Jun-16

Client: APEX TITAN

Project: Trunk MD 16" June 2016

Sample ID	5ML RB	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	D34893		RunNo:	34893					
Prep Date:		Analysis Date:	6/14/2016		SeqNo:	1078090	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120				

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	D34893	RunNo:	34893					
Prep Date:		Analysis Date:	6/14/2016	SeqNo:	1078091	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.6	75.3	123			
Toluene	0.93	0.050	1.000	0	92.9	80	124			
Ethylbenzene	0.91	0.050	1.000	0	90.9	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	91.6	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

## 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 | W Sample container temperature is out of limit as specified |





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: 1806707

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

06/14/16  
6/14/2016 7:10:00 AM

Completed By: Lindsay Mangin

6/14/2016 7:35:20 AM

Reviewed By:

AS 06/14/16

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:   
Adjusted? ( $<2$  or  $>12$  unless noted)  
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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			



## CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>A. Freeman</u> Phone: _____ PO/SO #: _____		ANALYSIS REQUESTED  <div style="transform: rotate(-45deg); transform-origin: center;">             8021 BTEX              8015 TPH-GRA/PEO           </div>		Lab use only Due Date: _____  Temp. of coolers when received (C°): <u>1.3</u> <div style="display: flex; justify-content: space-around;"> <span>1</span><span>2</span><span>3</span><span>4</span><span>5</span> </div> Page <u>1</u> of <u>1</u>								
		Project Manager <u>K. Summers</u> Sampler's Name <u>Ranee Dechilly</u> Sampler's Signature <u>R. Dechilly</u>												
Proj. No. _____		Project Name <u>Trunk MO 16" June 2016</u>		No/Type of Containers _____										
Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)	
S	6/13/16	1330			CS-3								X X	1606707-001
		1340			CS-4								X X	-002
		1350			CS-5								X X	-003
		1400			CS-6								X X	-004
		1410			CS-7								X X	-005
		1420			CS-8								X X	-006
<div style="transform: rotate(-15deg); transform-origin: center; opacity: 0.5;">             N/A           </div>														
Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush <u>SOME DAY</u>														
Relinquished by (Signature)		Date:	Time:	Received by (Signature)		Date:	Time:	NOTES:  <u>Rush</u> Bill to Tom Long EPRD AFE A25726						
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: WW - Wastewater    W - Water    S - Soil    SD - Solid    L - Liquid    A - Air Bag    C - Charcoal tube    SL - sludge    O - Oil  
 Container: 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](http://www.hallenvironmental.com)

June 13, 2016

Kyle Summers

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Trunk MD" 16 June 2016

OrderNo.: 1606518

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/10/2016 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](http://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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



## Analytical Report

Lab Order 1606518

Date Reported: 6/13/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: CS-1

Project: Trunk MD" 16 June 2016

Collection Date: 6/9/2016 10:00:00 AM

Lab ID: 1606518-001

Matrix: SOIL

Received Date: 6/10/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/10/2016 10:51:02 AM	25775
Surr: DNOP	93.9	70-130		%Rec	1	6/10/2016 10:51:02 AM	25775
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/10/2016 11:01:39 AM	25767
Surr: BFB	106	80-120		%Rec	1	6/10/2016 11:01:39 AM	25767
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/10/2016 11:01:39 AM	25767
Toluene	ND	0.035		mg/Kg	1	6/10/2016 11:01:39 AM	25767
Ethylbenzene	ND	0.035		mg/Kg	1	6/10/2016 11:01:39 AM	25767
Xylenes, Total	ND	0.071		mg/Kg	1	6/10/2016 11:01:39 AM	25767
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/10/2016 11:01:39 AM	25767

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1606518

Date Reported: 6/13/2016

CLIENT: APEX TITAN

Client Sample ID: CS-2

Project: Trunk MD" 16 June 2016

Collection Date: 6/9/2016 10:15:00 AM

Lab ID: 1606518-002

Matrix: SOIL

Received Date: 6/10/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/10/2016 11:12:51 AM	25775
Surr: DNOP	95.5	70-130		%Rec	1	6/10/2016 11:12:51 AM	25775
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/10/2016 11:25:13 AM	25767
Surr: BFB	106	80-120		%Rec	1	6/10/2016 11:25:13 AM	25767
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	6/10/2016 11:25:13 AM	25767
Toluene	ND	0.037		mg/Kg	1	6/10/2016 11:25:13 AM	25767
Ethylbenzene	ND	0.037		mg/Kg	1	6/10/2016 11:25:13 AM	25767
Xylenes, Total	ND	0.074		mg/Kg	1	6/10/2016 11:25:13 AM	25767
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/10/2016 11:25:13 AM	25767

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	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606518

13-Jun-16

Client: APEX TITAN

Project: Trunk MD" 16 June 2016

Sample ID	MB-25775	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25775	RunNo:	34817					
Prep Date:	6/10/2016	Analysis Date:	6/10/2016	SeqNo:	1075086	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		118	70	130			

Sample ID	LCS-25775	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25775	RunNo:	34817					
Prep Date:	6/10/2016	Analysis Date:	6/10/2016	SeqNo:	1075087	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	97.7	62.6	124			
Surr: DNOP	4.9		5.000		99.0	70	130			

Sample ID	MB-25735	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25735	RunNo:	34817					
Prep Date:	6/8/2016	Analysis Date:	6/10/2016	SeqNo:	1075995	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		120	70	130			

Sample ID	LCS-25735	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25735	RunNo:	34817					
Prep Date:	6/8/2016	Analysis Date:	6/10/2016	SeqNo:	1075996	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606518

13-Jun-16

Client: APEX TITAN

Project: Trunk MD" 16 June 2016

Sample ID	MB-25767	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25767	RunNo:	34832					
Prep Date:	6/9/2016	Analysis Date:	6/10/2016	SeqNo:	1075796	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	1100		1000		106	80	120			

Sample ID	LCS-25767	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25767	RunNo:	34832					
Prep Date:	6/9/2016	Analysis Date:	6/10/2016	SeqNo:	1075824	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.7	80	120			
Surr: BFB	1100		1000		114	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606518

13-Jun-16

Client: APEX TITAN

Project: Trunk MD" 16 June 2016

Sample ID	MB-25767	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25767	RunNo:	34832					
Prep Date:	6/9/2016	Analysis Date:	6/10/2016	SeqNo:	1075966	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
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-25767	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25767	RunNo:	34832					
Prep Date:	6/9/2016	Analysis Date:	6/10/2016	SeqNo:	1075967	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	0.98	0.050	1.000	0	97.8	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	98.2	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	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
- W Sample container temperature is out of limit as specified





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: 1606518

RcptNo: 1

Received by/date: AS 06/10/16

Logged By: Anne Thorne

6/10/2016 8:00:00 AM

*AS*

Completed By: Anne Thorne

6/10/2016

*AS*

Reviewed By: IO

06/10/16

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



## CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>A. Freeman</u> Phone: _____ PO/SO #: _____		ANALYSIS REQUESTED  <div style="transform: rotate(-45deg); display: inline-block;">8031 BTX 8015 TPH LOD/DEC</div>										Lab use only Due Date: <u>1.0</u>  Temp. of coolers when received (C°): <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> </table> Page <u>1</u> of <u>1</u>					1	2	3	4	5
		1	2											3	4	5							
Project Manager <u>K. Summers</u> Sampler's Name <u>Ranee Deechilly</u> Sampler's Signature <u>R. Deechilly</u>		Proj. No. _____ Project Name <u>Trunk MD"16 June 2016</u> No/Type of Containers _____																					

Matrix	Date	Time	COOL	BAR	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O											Lab Sample ID (Lab Use Only)	
S	6/9/16	1000			CS-1						1		XX											1606518-001
S	6/9/16	1015			CS-2						1		XX											002
N/A																								

Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush <u>Same Day</u>													NOTES:  Bill to Tom Long EPPod <u>Rus h</u> APE A25726														
Relinquished by (Signature) <u>Ranee Deechilly</u>				Date: <u>6/9/16</u>		Time: <u>1455</u>		Received by (Signature) <u>Tom Long</u>				Date: <u>6/9/16</u>													Time: <u>1458</u>		
Relinquished by (Signature) <u>Tom Long</u>				Date: <u>6/9/16</u>		Time: <u>1849</u>		Received by (Signature) <u>Ranee Deechilly</u>				Date: <u>6/10/16</u>													Time: <u>0800</u>		
Relinquished by (Signature) _____				Date: _____		Time: _____		Received by (Signature) _____				Date: _____													Time: _____		
Relinquished by (Signature) _____				Date: _____		Time: _____		Received by (Signature) _____				Date: _____		Time: _____													

Matrix	WW - Wastewater	W - Water	S - Soil	SD - Solid	L - Liquid	A - Air Bag	C - Charcoal tube	SL - sludge	O - Oil
Container	VOA - 40 ml vial	A/G - 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: MAPL Line ID 696 AID 141 - 3 Inch	Facility Type: Natural Gas Transmission Pipeline

Surface Owner: Navajo Nation	Mineral Owner: Navajo Nation	Serial Number: NA
------------------------------	------------------------------	-------------------

**LOCATION OF RELEASE**

Unit Letter I	Section 22	Township 29N	Range 14W	Feet from the 2351	North <del>South</del> Line	Feet from the 318	<del>East</del> West Line	County San Juan
------------------	---------------	-----------------	--------------	-----------------------	--------------------------------	----------------------	------------------------------	--------------------

Latitude 36.711670 Longitude -108.289190

**NATURE OF RELEASE**

Type of Release: Potable Water	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Pipeline Rupture	Date and Hour of Occurrence: 8/17/2016 @ 11:30 a.m.	Date and Hour of Discovery: 8/17/2016 @ 11:30 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields - NMOCD, Steve Austin - NNEPA	
By Whom? Thomas Long	Date and Time 8/17/2016 @ 2:36 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

OIL CONS. DIV DIST. 3

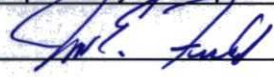

SEP 01 2016

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: At approximately 11:30 a.m. on August 17, 2016, a rupture occurred during hydro-static testing of the MAPL Line ID 696 AID 141 - 3 Inch pipeline. An unknown amount of potable was released to the ground surface and flowed north along the right-of-way.

Describe Area Affected and Cleanup Action: Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Field Environmental	Approval Date: 9/7/2016	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/26/2016	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

NVF 1625142047  
Sample Area  
801S & 8021  
including MRO/ORO

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

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: Edgar Federal #7	Facility Type: Natural Gas Meter Tube

Surface Owner: Navajo Nation/NAPI	Mineral Owner: Navajo Nation/NAPI	Serial Number:
-----------------------------------	-----------------------------------	----------------

**LOCATION OF RELEASE**

Unit Letter P	Section 12	Township 27N	Range 12W	Feet from the 645	North/South Line	Feet from the 1014	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	----------------------	---------------------	-----------------------	-------------------	--------------------

OIL CONS. DIV DIST. 3

Latitude 36.58412 Longitude -108.05758

AUG 12 2016

**NATURE OF RELEASE**

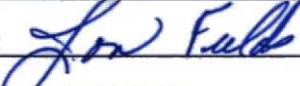

Type of Release: Natural Gas and Condensate	Volume of Release 0.3 MCF Gas; 5-10 bbls Condensate	Volume Recovered: None
Source of Release: Failed Gasket on a Meter Tube	Date and Hour of Occurrence: 4/13/2016 @ 12:11 p.m.	Date and Hour of Discovery: 4/13/2016 @ 12:11 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification: Cory Smith -NMOCD; Steve Austin-NNEPA	
By Whom? Thomas Long	Date and Time April 26, 2016@ 7:32 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: On April 13, 2016, Enterprise technician discovered a gas leak from the gasket on the Edgar Federal #7 meter tube. The meter tube was isolated, blown down, locked out and tagged out. An area of soil staining of approximately 15 feet long by 2 feet wide was observed on the ground surface. Repairs and remediation were completed on May 9, 2016.

Describe Area Affected and Cleanup Action: The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 68 feet long by 50 feet wide ranging from 10 to 12 feet deep. Approximately 445 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 9/22/2016	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-8-2016	Phone: (713)381-6684	NF1616830109

\* Attach Additional Sheets If Necessary

54



OIL CONS. DIV DIST. 3

AUG 12 2016

**Edgar Federal #7**  
**Pipeline Valve Release Report**

UL P, Sec 12, Township 27N, Range 12W  
San Juan County, New Mexico

July 8, 2016

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 Edgar Federal #7 Pipeline Valve 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



---

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

Reviewed by:



---

Russell Knight, PG, Principal Hydrogeologist

July 8, 2016



## Table of Contents

1.0	Introduction.....	1
2.0	Release Summary.....	1
3.0	NNEPA/NMOCD Site Ranking .....	2
4.0	Field Activities .....	2
5.0	Soil Sampling .....	2
6.0	Laboratory Analytical Results .....	3
7.0	Conclusions.....	3
8.0	Closure and Limitations .....	4

## Tables

Table 1	NNEPA/NMOCD Site Ranking Determination
Table 2	Laboratory Analytical Results

## Figures

Figure 1	Topographic Map
Figure 2	Aerial Site Map

## Appendices

Appendix A	Executed C-138 Solid Waste Acceptance Forms
Appendix B	Photograph Log
Appendix C	Analytical Laboratory Report



## 1.0 Introduction

The Enterprise Field Services, LLC (Enterprise) Edgar Federal #7 pipeline valve release site is located in Unit Letter P, Section 12, Township 27 North, Range 12 West, in San Juan County, New Mexico. The release resulted from failure of a gasket in the downstream valve on the meter run and was discovered on March 13, 2016.

On April 25, 2016, Enterprise initiated repair activities at the location. Site work included the repair of the valve and excavation of hydrocarbon impacted soils.

A topographic map of the location reproduced from the United States Geological Society quadrangle map of the area is included as Figure 1 and an aerial site map is included as Figure 2.

## 2.0 Release Summary

<b>Site Name</b>	Edgar Federal #7 Pipeline Valve Release		
<b>Site Location Description</b>	Unit Letter P, Section 12, Township 27 North, Range 12 West (N36.58432, W108.05709)		
<b>Land Jurisdiction</b>	Navajo Nation		
<b>Discovery Date</b>	March 13, 2016		
<b>Release Report Date</b>	March 13, 2016	<b>Reported by</b>	Thomas Long
<b>Agency Notification</b>	Navajo Nation Environmental Protection Agency (NNEPA) and New Mexico Oil Conservation Division (NMOCD)		
<b>Release Source</b>	Valve on downstream side of meter run		
<b>Substance(s) Released</b>	Natural Gas and Pipeline Liquids		
<b>NNEPA/NMOCD Site Rank</b>	10		
<b>Distance to Nearest Surface Water</b>	A stock pond is located approximately 450 feet north of the release location		
<b>Estimated Depth to Groundwater</b>	Greater than 100 feet below grade surface (bgs)	<b>Distance to Nearest Water Well or Spring</b>	Greater than 1,000 feet
<b>Contractor</b>	West State Energy Contractors (West States)	<b>Repair Excavation Dimensions</b>	68 feet by 50 feet by 10 to 12 feet in depth
<b>Volume of Soil Transported to for Disposal/Remediation</b>	545 cubic yards	<b>Disposal Facility</b>	Envirotech Landfarm (Permit #: NM 01-0011)



A portion of each sample was field screened for volatile organic compounds (VOCs) and selected samples were field analyzed for TPH. Field screening for VOC vapors was conducted with a photoionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field analysis for TPH was conducted for selected samples per USEPA Method 418.1, utilizing a total hydrocarbon analyzer. Prior to field analysis, the machine was calibrated following the manufacturer's procedure which includes calculation of a calibration curve using known concentration standards.

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 (GRO/DRO) per USEPA 8015D. Laboratory analytical results are summarized in Table 2, and the analytical laboratory reports are included in Appendix C.

## **6.0 Laboratory Analytical Results**

Laboratory analytical results for excavation confirmation samples SC-1 through SC-12, as well as stockpile samples SP-1 through SP-4, reported benzene concentrations ranging from below the laboratory reporting limits to 3.2 mg/kg, which are below the applicable NNEPA/NMOCD action levels. Laboratory analytical results for confirmation samples SC-1 through SC-12 (except for SC-4 removed by excavation), as well as stockpile samples SP-1 through SP-4, reported total BTEX concentrations ranging from below the laboratory reporting limits to 47 mg/kg, which are below the applicable NNEPA/NMOCD action levels. Laboratory analytical results for confirmation samples SC-1 through SC-12 (except for SC-4 removed by excavation), as well as stockpile soil samples SP-1 through SP-4, reported TPH (GRO/DRO) concentrations ranging from below laboratory reporting limits to 430 mg/kg, which are below the NNEPA/NMOCD action level of 1,000 mg/kg for a site rank of 10. Laboratory analytical results are summarized in Table 2, and the analytical laboratory reports are included in Appendix C.

## **7.0 Conclusions**

The Enterprise Edgar Federal #7 pipeline valve release site is located in Unit Letter P, Section 12, Township 27 North, Range 12 West, in San Juan County, New Mexico. The release resulted from failure of a gasket in the downstream valve on the meter run and was discovered on March 13, 2016. The repair activities included the repair of the valve and excavation of the hydrocarbon impacted soils. Confirmation samples were collected from the sidewalls and base of the resultant repair excavation which measured approximately 68 feet by 50 feet by 10 to 12 feet in depth. Samples were also collected from selected stockpiled soils for laboratory analysis. Laboratory analytical results for the soil confirmation samples SC-1 through SC-12 (excluding SC-4 removed by excavation), as well as samples collected from the selected stockpiled soils (SP-1 through SP-4), reported benzene, total BTEX, and total TPH (GRO/DRO) concentrations below the



## Tables



**Table 1. NNEPA/NMOCD Site Ranking Determination**  
**Enterprise Field Services, LLC**  
**Edgar Federal #7 Pipeline Valve Release**  
**San Juan County, New Mexico**

Ranking Criteria	Ranking Score	Site-Based Ranking Score	Basis for Determination	Data Sources
Depth to Groundwater				
<50 feet	20	0	Elevation differential information derived from the topographic map of the area.	NMOCD Online database, Gallegos Trading Post 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 foot radius of location.	NMOSE NMWRRS, Gallegos Trading Post Quadrangle, Google Earth, and Visual Inspection
	0 (No)			
Distance to Surface Water Body				
<200 horizontal feet	20	10	A stock pond is located approximately 450 feet north of release location.	Gallegos Trading Post 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. Laboratory Analytical Results**  
**Enterprise Field Services, LLC**  
**Edgar Federal #7 Pipeline Valve Release**  
**San Juan County, New Mexico**

Sample Name	Date	Sample Location	Approximate Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)
NNEPA/NMOCD Action Level*				10	NE	NE	NE	50	1,000**	
Samples Removed by Excavation										
SC-4	5/3/2016	NE Base	10 to 12	3.2	43	7.1	67	120	890	290
Excavation Confirmation Samples										
SC-1	5/3/2016	SE Base	10 to 11	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.5
SC-2	5/3/2016	SE Wall (Lower)	6 to11	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.7
SC-3	5/3/2016	East Wall (Lower)	6 to 12	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.3
SC-5	5/3/2016	NW Base	10 to 12	0.88	14	2.9	29	47	300	130
SC-6	5/3/2016	SE Wall (Upper)	0.5 to 6	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.4
SC-7	5/3/2016	West Wall (Lower)	6 to 12	<0.024	<0.048	<0.048	<0.097	<0.217	<4.8	<9.6
SC-8	5/3/2016	East Wall (Upper)	0.5 to 6	<0.025	<0.050	<0.050	<0.099	<0.224	<5.0	<9.9
SC-9	5/3/2016	North Wall (Upper)	0.5 to 6	<0.025	0.10	<0.049	0.24	0.34	<4.9	<9.6
SC-10	5/3/2016	North Wall (Lower)	6 to 12	<0.025	<0.049	<0.049	<0.099	<0.222	<4.9	<9.9
SC-11	5/3/2016	West Wall (Upper)	0.5 to 6	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.8
SC-12	5/9/2016	NE Base	10 to 12	<0.024	<0.048	<0.048	<0.095	<0.215	<4.8	<9.8
Stockpile Confirmation Samples										
SP-1	5/3/2016	Stockpile	--	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.5
SP-2	5/3/2016	Stockpile	--	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<9.5
SP-3	5/3/2016	Stockpile	--	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	12
SP-4	5/3/2016	Stockpile	--	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.4

Notes: ft bgs - feet below grade surface

mg/kg - milligrams per kilogram

NNEPA - Navajo Nation Environmental Protection Agency

NMOCD - New Mexico Oil Conservation Division

BTEX - benzene, toluene, ethylbenzene, and xylenes

\*Based on the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

\*\*Based on a site ranking of 10

TPH - total petroleum hydrocarbons

GRO - gasoline range organics

DRO - diesel range organics

NE - not-established

ND - not detected above laboratory reporting limits



## Figures





**Figure 1**  
**Topographic Site Map**  
Edgar Federal #7  
Pipeline Valve Release

**Figure 1**  
**Topographic Site Map**  
Edgar Federal #7  
Pipeline Valve Release



## 1.0 Introduction

The Enterprise Field Services, LLC (Enterprise) Edgar Federal #7 pipeline valve release site is located in Unit Letter P, Section 12, Township 27 North, Range 12 West, in San Juan County, New Mexico. The release resulted from failure of a gasket in the downstream valve on the meter run and was discovered on March 13, 2016.

On April 25, 2016, Enterprise initiated repair activities at the location. Site work included the repair of the valve and excavation of hydrocarbon impacted soils.

A topographic map of the location reproduced from the United States Geological Society quadrangle map of the area is included as Figure 1 and an aerial site map is included as Figure 2.

## 2.0 Release Summary

<b>Site Name</b>	Edgar Federal #7 Pipeline Valve Release		
<b>Site Location Description</b>	Unit Letter P, Section 12, Township 27 North, Range 12 West (N36.58432, W108.05709)		
<b>Land Jurisdiction</b>	Navajo Nation		
<b>Discovery Date</b>	March 13, 2016		
<b>Release Report Date</b>	March 13, 2016	<b>Reported by</b>	Thomas Long
<b>Agency Notification</b>	Navajo Nation Environmental Protection Agency (NNEPA) and New Mexico Oil Conservation Division (NMOCD)		
<b>Release Source</b>	Valve on downstream side of meter run		
<b>Substance(s) Released</b>	Natural Gas and Pipeline Liquids		
<b>NNEPA/NMOCD Site Rank</b>	10		
<b>Distance to Nearest Surface Water</b>	A stock pond is located approximately 450 feet north of the release location		
<b>Estimated Depth to Groundwater</b>	Greater than 100 feet below grade surface (bgs)	<b>Distance to Nearest Water Well or Spring</b>	Greater than 1,000 feet
<b>Contractor</b>	West State Energy Contractors (West States)	<b>Repair Excavation Dimensions</b>	68 feet by 50 feet by 10 to 12 feet in depth
<b>Volume of Soil Transported to for Disposal/Remediation</b>	545 cubic yards	<b>Disposal Facility</b>	Envirotech Landfarm (Permit #: NM 01-0011)



### 3.0 NNEPA/NMOCD Site Ranking

The release site is located on the Navajo Nation under the jurisdiction of the NNEPA. Based on NNEPA recommendations, remediation of soils associated with natural gas and condensate releases are assigned a rank in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 10 (Table 1).

Depth to groundwater at the site is estimated to be greater than 100 feet bgs based on the elevation differential between the release location and large washes in the area. A review was completed of the New Mexico Office of the State Engineer online New Mexico Water Rights Reporting System and no water wells were identified within a 1,000 foot radius of the location. No water wells were observed within a 1,000 foot radius of the location during a visual inspection. A stock pond is located approximately 450 feet north of the release location.

Based on the ranking score of 10, action levels for remediated soils at the site are as follows: 10 milligrams per kilogram (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).

### 4.0 Field Activities

On April 25, 2016, Enterprise initiated repair activities at the location. West States provided heavy equipment operation and repair support. Rule Engineering, LLC (Rule) personnel provided excavation guidance and collected confirmation samples from the resultant excavation. The final excavation measured approximately 68 feet by 50 feet by 10 to 12 feet in depth. Approximately 542 cubic yards of soil were transported to the Envirotech Landfarm near Bloomfield, New Mexico for disposal/remediation. The excavation was backfilled with clean, imported material and the stockpiled soils shown to be reusable by laboratory analysis.

A depiction of the excavation with sample locations and summary of analytical results is included as Figure 2. A copy of the executed C-138 Solid Waste Acceptance Forms are included in Appendix A. A photograph log is included in Appendix B.

### 5.0 Soil Sampling

Rule collected confirmation excavation soil samples (SC-1 through SC-12) from the sidewalls and base of the excavation and stockpile samples (SP-1 through SP-4) from selected stockpiled soils. The northeast portion of the base sampled as SC-4 exceeded the NNEPA/NMOCD action levels for total BTEX and TPH (GRO/DRO). The northeast portion of the base was further excavated and resampled on May 9, 2016, as confirmation sample SC-12. Each confirmation soil sample is a representative composite comprised of five equivalent aliquots of soil collected from the sampled area.



A portion of each sample was field screened for volatile organic compounds (VOCs) and selected samples were field analyzed for TPH. Field screening for VOC vapors was conducted with a photoionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field analysis for TPH was conducted for selected samples per USEPA Method 418.1, utilizing a total hydrocarbon analyzer. Prior to field analysis, the machine was calibrated following the manufacturer's procedure which includes calculation of a calibration curve using known concentration standards.

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 (GRO/DRO) per USEPA 8015D. Laboratory analytical results are summarized in Table 2, and the analytical laboratory reports are included in Appendix C.

## **6.0 Laboratory Analytical Results**

Laboratory analytical results for excavation confirmation samples SC-1 through SC-12, as well as stockpile samples SP-1 through SP-4, reported benzene concentrations ranging from below the laboratory reporting limits to 3.2 mg/kg, which are below the applicable NNEPA/NMOCD action levels. Laboratory analytical results for confirmation samples SC-1 through SC-12 (except for SC-4 removed by excavation), as well as stockpile samples SP-1 through SP-4, reported total BTEX concentrations ranging from below the laboratory reporting limits to 47 mg/kg, which are below the applicable NNEPA/NMOCD action levels. Laboratory analytical results for confirmation samples SC-1 through SC-12 (except for SC-4 removed by excavation), as well as stockpile soil samples SP-1 through SP-4, reported TPH (GRO/DRO) concentrations ranging from below laboratory reporting limits to 430 mg/kg, which are below the NNEPA/NMOCD action level of 1,000 mg/kg for a site rank of 10. Laboratory analytical results are summarized in Table 2, and the analytical laboratory reports are included in Appendix C.

## **7.0 Conclusions**

The Enterprise Edgar Federal #7 pipeline valve release site is located in Unit Letter P, Section 12, Township 27 North, Range 12 West, in San Juan County, New Mexico. The release resulted from failure of a gasket in the downstream valve on the meter run and was discovered on March 13, 2016. The repair activities included the repair of the valve and excavation of the hydrocarbon impacted soils. Confirmation samples were collected from the sidewalls and base of the resultant repair excavation which measured approximately 68 feet by 50 feet by 10 to 12 feet in depth. Samples were also collected from selected stockpiled soils for laboratory analysis. Laboratory analytical results for the soil confirmation samples SC-1 through SC-12 (excluding SC-4 removed by excavation), as well as samples collected from the selected stockpiled soils (SP-1 through SP-4), reported benzene, total BTEX, and total TPH (GRO/DRO) concentrations below the



applicable NNEPA/NMOGA action levels. Approximately 542 cubic yards of soil and to Envirotech Landfarm for disposal/remediation. The repair excavation was backfilled with clean, imported material and the stockpiled soils shown to be reusable by laboratory analysis.

Based on laboratory analytical results of the confirmation soil samples, no further work is recommended.

## **8.0 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 report and 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. NNEPA/NMOCD Site Ranking Determination**  
**Enterprise Field Services, LLC**  
**Edgar Federal #7 Pipeline Valve Release**  
**San Juan County, New Mexico**

Ranking Criteria	Ranking Score	Site-Based Ranking Score	Basis for Determination	Data Sources
Depth to Groundwater				
<50 feet	20	0	Elevation differential information derived from the topographic map of the area.	NMOCD Online database, Gallegos Trading Post 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 foot radius of location.	NMOSE NMWRRS, Gallegos Trading Post Quadrangle, Google Earth, and Visual Inspection
	0 (No)			
Distance to Surface Water Body				
<200 horizontal feet	20	10	A stock pond is located approximately 450 feet north of release location.	Gallegos Trading Post 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. Laboratory Analytical Results**  
**Enterprise Field Services, LLC**  
**Edgar Federal #7 Pipeline Valve Release**  
**San Juan County, New Mexico**

Sample Name	Date	Sample Location	Approximate Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)
NNEPA/NMOCD Action Level*				10	NE	NE	NE	50	1,000**	
Samples Removed by Excavation										
SC-4	5/3/2016	NE Base	10 to 12	3.2	43	7.1	67	120	890	290
Excavation Confirmation Samples										
SC-1	5/3/2016	SE Base	10 to 11	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.5
SC-2	5/3/2016	SE Wall (Lower)	6 to11	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.7
SC-3	5/3/2016	East Wall (Lower)	6 to 12	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.3
SC-5	5/3/2016	NW Base	10 to 12	0.88	14	2.9	29	47	300	130
SC-6	5/3/2016	SE Wall (Upper)	0.5 to 6	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.4
SC-7	5/3/2016	West Wall (Lower)	6 to 12	<0.024	<0.048	<0.048	<0.097	<0.217	<4.8	<9.6
SC-8	5/3/2016	East Wall (Upper)	0.5 to 6	<0.025	<0.050	<0.050	<0.099	<0.224	<5.0	<9.9
SC-9	5/3/2016	North Wall (Upper)	0.5 to 6	<0.025	0.10	<0.049	0.24	0.34	<4.9	<9.6
SC-10	5/3/2016	North Wall (Lower)	6 to 12	<0.025	<0.049	<0.049	<0.099	<0.222	<4.9	<9.9
SC-11	5/3/2016	West Wall (Upper)	0.5 to 6	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.8
SC-12	5/9/2016	NE Base	10 to 12	<0.024	<0.048	<0.048	<0.095	<0.215	<4.8	<9.8
Stockpile Confirmation Samples										
SP-1	5/3/2016	Stockpile	--	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.5
SP-2	5/3/2016	Stockpile	--	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<9.5
SP-3	5/3/2016	Stockpile	--	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	12
SP-4	5/3/2016	Stockpile	--	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.4

Notes: ft bgs - feet below grade surface

mg/kg - milligrams per kilogram

NNEPA - Navajo Nation Environmental Protection Agency

NMOCD - New Mexico Oil Conservation Division

BTEX - benzene, toluene, ethylbenzene, and xylenes

\*Based on the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

\*\*Based on a site ranking of 10

TPH - total petroleum hydrocarbons

GRO - gasoline range organics

DRO - diesel range organics

NE - not-established

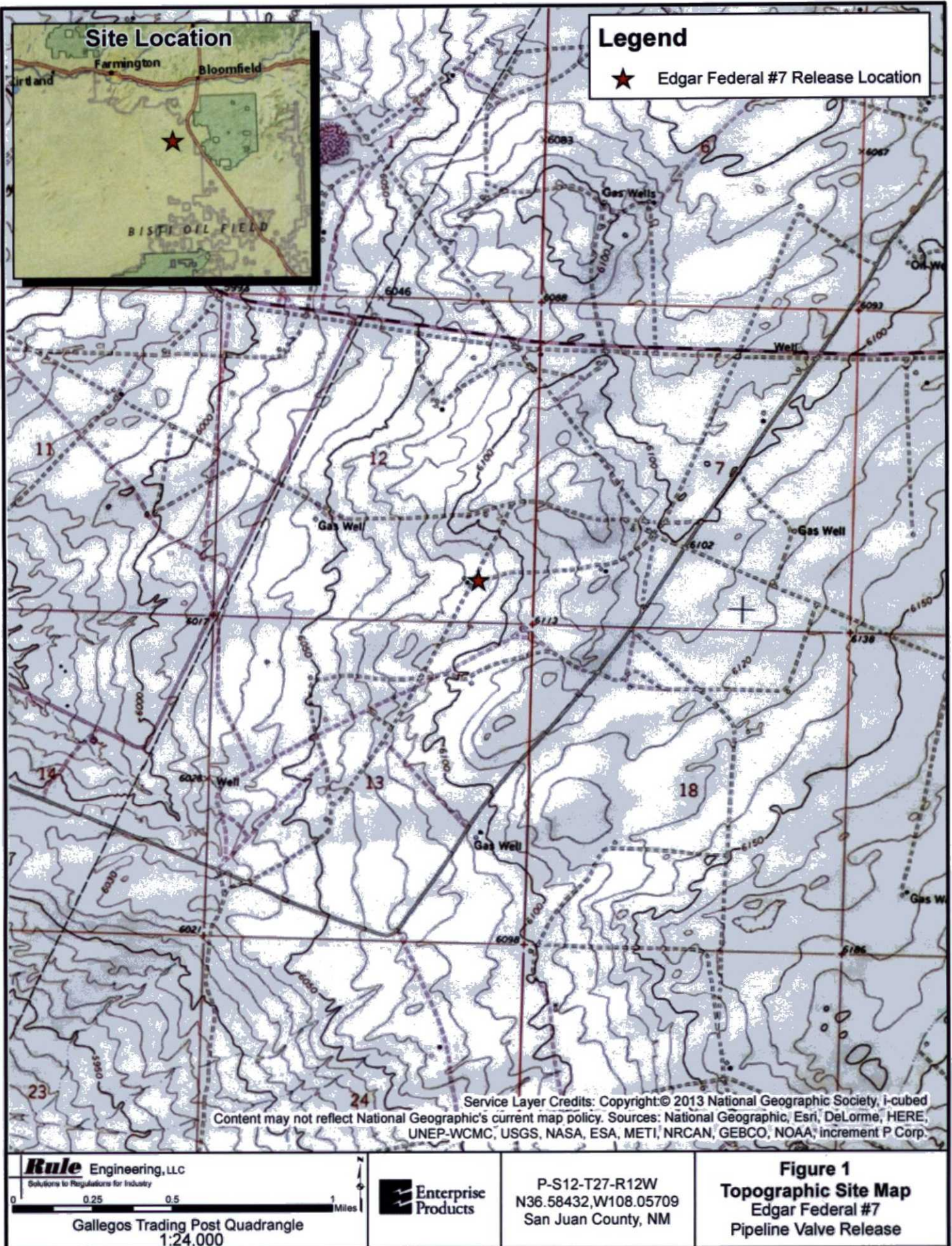
ND - not detected above laboratory reporting limits



## Figures



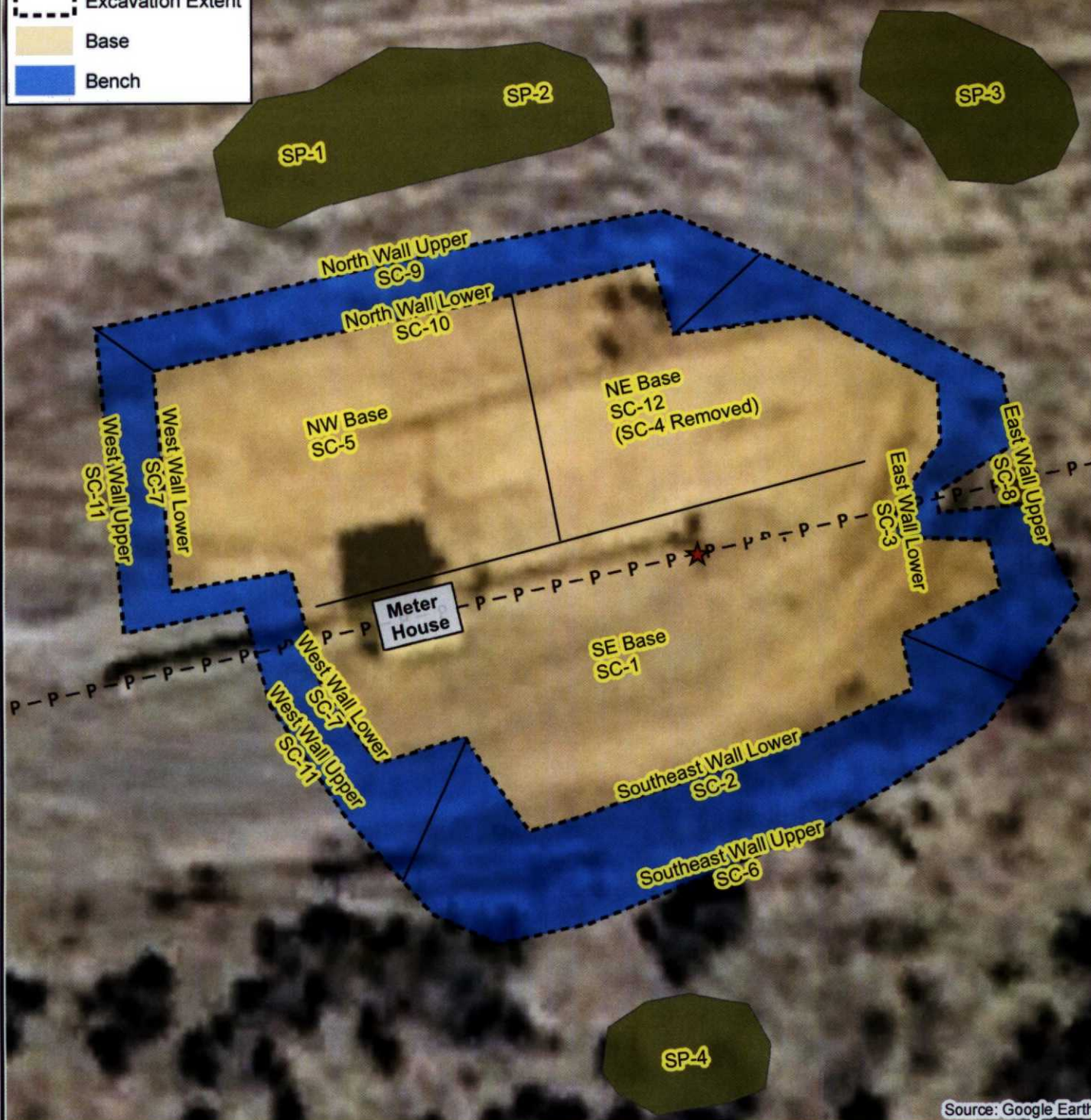
Document Path: U:\Enterprise Products\Edgar Federal #7\Edgar Federal #7 Topo.mxd





# Legend

- ★ Release Location
- Stockpile
- P - Pipeline
- Excavation Extent
- Base
- Bench



Source: Google Earth

**Rule Engineering, LLC**  
Solutions to Regulations for Industry

0 2.5 5 10 15 20 Feet  
1 inch = 10 feet

**Enterprise Products**

P-S12-T27N-R12W  
N36.58432, W108.05709  
San Juan County, NM

**Figure 2**  
**Aerial Site Map**  
Edgar Federal #7  
Pipeline Valve Release



## Appendix A

### Executed C-138 Solid Waste Acceptance Form



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

47057-0771

Form C-138  
Revised August 1, 2011

\*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:**  
Edgar Federal #7
3. **Location of Material (Street Address, City, State or ULSTR):**  
Unit Letter P Section 12 Township 27 North Range 12 West; 36.58412 108.05758
4. **Source and Description of Waste:** Hydrocarbon impacted soil from excavation activities associated with a meter tube release
5. **Estimated Volume** 20 yd<sup>3</sup>/bbls **Known Volume (to be entered by the operator at the end of the haul)** 542 yd<sup>3</sup>/bbls

April / May 2016

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

- I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC do hereby  
**PRINT & SIGN NAME** **COMPANY NAME**  
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 4-25-16, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to  
Generator Signature  
complete the required testing/sign the Generator Waste Testing Certification.
- I, Greg Crabtree, representative for Envirotech, Inc. 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 State Energy Contractors**

**OCD Permitted Surface Waste Management Facility**

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: Greg Crabtree

TITLE: Environmental Manager DATE: 4/25/16

SIGNATURE: Greg Crabtree  
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-0615




## Appendix B


### Photograph Log



**Photograph Log**  
**Edgar Federal #7 Pipeline Valve Release**  
**Enterprise Field Services, LLC**

**Rule**

Photograph #1	
Client: Enterprise	
Site Name:  Edgar Federal #7 Pipeline Valve Release	
Date Photo Taken: May 3, 2016	
Release Location: N36.58432, W108.05709 P-12-27N-12W San Juan County, NM	
Photo Taken by: Justin Valdez	Description: Facing northeast, view of the final excavation.

Photograph #2	
Client: Enterprise	
Site Name:  Edgar Federal #7 Pipeline Valve Release	
Date Photo Taken: May 3, 2016	
Release Location: N36.58432, W108.05709 P-12-27N-12W San Juan County, NM	
Photo Taken by: Justin Valdez	Description: Facing northwest, view of the final excavation.



**Photograph Log**  
**Edgar Federal #7 Pipeline Valve Release**  
**Enterprise Field Services, LLC**

***Rule***

Photograph #3	
Client: Enterprise	
Site Name:  Edgar Federal #7 Pipeline Valve Release	
Date Photo Taken: May 3, 2016	
Release Location: N36.58432, W108.05709 P-12-27N-12W San Juan County, NM	
Photo Taken by: Justin Valdez	
Description: Facing west, view of the final excavation.	

Photograph #4	
Client: Enterprise	
Site Name:  Edgar Federal #7 Pipeline Valve Release	
Date Photo Taken: May 3, 2016	
Release Location: N36.58432, W108.05709 P-12-27N-12W San Juan County, NM	
Photo Taken by: Justin Valdez	
Description: Facing east, view of the final excavation.	



Appendix C  
Analytical Laboratory Report





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

May 09, 2016

Heather Woods  
Rule Engineering LLC  
501 Airport Dr., Ste 205  
Farmington, NM 87401  
TEL: (505) 325-1055  
FAX

RE: Enterprise Edgar Federal 7

OrderNo.: 1605109

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 11 sample(s) on 5/4/2016 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](http://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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Analytical Report**Lab Order **1605109**Date Reported: **5/9/2016****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Rule Engineering LLC**Client Sample ID:** SC-1**Project:** Enterprise Edgar Federal 7**Collection Date:** 5/3/2016 3:45:00 PM**Lab ID:** 1605109-001**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/4/2016 7:42:47 PM	25140
Surr: DNOP	93.1	70-130		%Rec	1	5/4/2016 7:42:47 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 10:47:49 AM	25141
Surr: BFB	91.8	80-120		%Rec	1	5/5/2016 10:47:49 AM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/5/2016 10:47:49 AM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 10:47:49 AM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 10:47:49 AM	25141
Xylenes, Total	ND	0.096		mg/Kg	1	5/5/2016 10:47:49 AM	25141
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	5/5/2016 10:47:49 AM	25141

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1605109

Date Reported: 5/9/2016

**CLIENT:** Rule Engineering LLC**Client Sample ID:** SC-2**Project:** Enterprise Edgar Federal 7**Collection Date:** 5/3/2016 3:50:00 PM**Lab ID:** 1605109-002**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/4/2016 8:04:28 PM	25140
Surr: DNOP	96.0	70-130		%Rec	1	5/4/2016 8:04:28 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 11:12:27 AM	25141
Surr: BFB	91.1	80-120		%Rec	1	5/5/2016 11:12:27 AM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/5/2016 11:12:27 AM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 11:12:27 AM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 11:12:27 AM	25141
Xylenes, Total	ND	0.096		mg/Kg	1	5/5/2016 11:12:27 AM	25141
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	5/5/2016 11:12:27 AM	25141

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Analytical Report**

Lab Order 1605109

Date Reported: 5/9/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Rule Engineering LLC**Client Sample ID:** SC-3**Project:** Enterprise Edgar Federal 7**Collection Date:** 5/3/2016 3:57:00 PM**Lab ID:** 1605109-003**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/4/2016 8:26:06 PM	25140
Surr: DNOP	99.8	70-130		%Rec	1	5/4/2016 8:26:06 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 11:37:10 AM	25141
Surr: BFB	90.9	80-120		%Rec	1	5/5/2016 11:37:10 AM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/5/2016 11:37:10 AM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 11:37:10 AM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 11:37:10 AM	25141
Xylenes, Total	ND	0.096		mg/Kg	1	5/5/2016 11:37:10 AM	25141
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	5/5/2016 11:37:10 AM	25141

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.**

Analytical Report

Lab Order 1605109

Date Reported: 5/9/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 4:04:00 PM

Lab ID: 1605109-004

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	290	9.7		mg/Kg	1	5/4/2016 8:47:48 PM	25140
Surr: DNOP	101	70-130		%Rec	1	5/4/2016 8:47:48 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	890	240		mg/Kg	50	5/5/2016 12:01:55 PM	25141
Surr: BFB	115	80-120		%Rec	50	5/5/2016 12:01:55 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	3.2	1.2		mg/Kg	50	5/5/2016 12:01:55 PM	25141
Toluene	43	2.4		mg/Kg	50	5/5/2016 12:01:55 PM	25141
Ethylbenzene	7.1	2.4		mg/Kg	50	5/5/2016 12:01:55 PM	25141
Xylenes, Total	67	4.8		mg/Kg	50	5/5/2016 12:01:55 PM	25141
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	50	5/5/2016 12:01:55 PM	25141

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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Rule Engineering LLC  
**Project:** Enterprise Edgar Federal 7  
**Lab ID:** 1605109-005

**Client Sample ID:** SC-5  
**Collection Date:** 5/3/2016 4:14:00 PM  
**Matrix:** SOIL  
**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	130	9.5		mg/Kg	1	5/4/2016 9:09:27 PM	25140
Surr: DNOP	96.9	70-130		%Rec	1	5/4/2016 9:09:27 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	300	49		mg/Kg	10	5/5/2016 12:51:13 PM	25141
Surr: BFB	167	80-120	S	%Rec	10	5/5/2016 12:51:13 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.88	0.24		mg/Kg	10	5/5/2016 12:51:13 PM	25141
Toluene	14	0.49		mg/Kg	10	5/5/2016 12:51:13 PM	25141
Ethylbenzene	2.9	0.49		mg/Kg	10	5/5/2016 12:51:13 PM	25141
Xylenes, Total	29	0.97		mg/Kg	10	5/5/2016 12:51:13 PM	25141
Surr: 4-Bromofluorobenzene	129	80-120	S	%Rec	10	5/5/2016 12:51:13 PM	25141

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1605109

Date Reported: 5/9/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SC-6

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 4:12:00 PM

Lab ID: 1605109-006

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/4/2016 9:31:13 PM	25140
Surr: DNOP	81.8	70-130		%Rec	1	5/4/2016 9:31:13 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/5/2016 1:40:15 PM	25141
Surr: BFB	95.3	80-120		%Rec	1	5/5/2016 1:40:15 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/5/2016 1:40:15 PM	25141
Toluene	ND	0.047		mg/Kg	1	5/5/2016 1:40:15 PM	25141
Ethylbenzene	ND	0.047		mg/Kg	1	5/5/2016 1:40:15 PM	25141
Xylenes, Total	ND	0.094		mg/Kg	1	5/5/2016 1:40:15 PM	25141
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	1	5/5/2016 1:40:15 PM	25141

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	W	Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1605109

Date Reported: 5/9/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-7

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 4:23:00 PM

Lab ID: 1605109-007

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/4/2016 9:52:47 PM	25140
Surr: DNOP	79.5	70-130		%Rec	1	5/4/2016 9:52:47 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 3:43:01 PM	25141
Surr: BFB	90.4	80-120		%Rec	1	5/5/2016 3:43:01 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/5/2016 3:43:01 PM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 3:43:01 PM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 3:43:01 PM	25141
Xylenes, Total	ND	0.097		mg/Kg	1	5/5/2016 3:43:01 PM	25141
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	5/5/2016 3:43:01 PM	25141

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.**

Analytical Report

Lab Order 1605109

Date Reported: 5/9/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SC-8

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 4:24:00 PM

Lab ID: 1605109-008

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/4/2016 10:14:35 PM	25140
Surr: DNOP	81.7	70-130		%Rec	1	5/4/2016 10:14:35 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/5/2016 4:07:27 PM	25141
Surr: BFB	94.4	80-120		%Rec	1	5/5/2016 4:07:27 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/5/2016 4:07:27 PM	25141
Toluene	ND	0.050		mg/Kg	1	5/5/2016 4:07:27 PM	25141
Ethylbenzene	ND	0.050		mg/Kg	1	5/5/2016 4:07:27 PM	25141
Xylenes, Total	ND	0.099		mg/Kg	1	5/5/2016 4:07:27 PM	25141
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	1	5/5/2016 4:07:27 PM	25141

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



**Analytical Report**

Lab Order 1605109

Date Reported: 5/9/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Rule Engineering LLC**Client Sample ID:** SC-9**Project:** Enterprise Edgar Federal 7**Collection Date:** 5/3/2016 4:16:00 PM**Lab ID:** 1605109-009**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/4/2016 10:36:13 PM	25140
Surr: DNOP	84.8	70-130		%Rec	1	5/4/2016 10:36:13 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/5/2016 4:31:52 PM	25141
Surr: BFB	109	80-120		%Rec	1	5/5/2016 4:31:52 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/5/2016 4:31:52 PM	25141
Toluene	0.10	0.049		mg/Kg	1	5/5/2016 4:31:52 PM	25141
Ethylbenzene	ND	0.049		mg/Kg	1	5/5/2016 4:31:52 PM	25141
Xylenes, Total	0.24	0.098		mg/Kg	1	5/5/2016 4:31:52 PM	25141
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	5/5/2016 4:31:52 PM	25141

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1605109

Date Reported: 5/9/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-10

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 4:32:00 PM

Lab ID: 1605109-010

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/4/2016 10:57:55 PM	25140
Surr: DNOP	84.8	70-130		%Rec	1	5/4/2016 10:57:55 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/5/2016 4:56:20 PM	25141
Surr: BFB	91.0	80-120		%Rec	1	5/5/2016 4:56:20 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/5/2016 4:56:20 PM	25141
Toluene	ND	0.049		mg/Kg	1	5/5/2016 4:56:20 PM	25141
Ethylbenzene	ND	0.049		mg/Kg	1	5/5/2016 4:56:20 PM	25141
Xylenes, Total	ND	0.099		mg/Kg	1	5/5/2016 4:56:20 PM	25141
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	5/5/2016 4:56:20 PM	25141

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	W	Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1605109

Date Reported: 5/9/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-11

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 4:35:00 PM

Lab ID: 1605109-011

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/4/2016 11:19:37 PM	25140
Surr: DNOP	83.4	70-130		%Rec	1	5/4/2016 11:19:37 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 5:20:54 PM	25141
Surr: BFB	88.6	80-120		%Rec	1	5/5/2016 5:20:54 PM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/5/2016 5:20:54 PM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 5:20:54 PM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 5:20:54 PM	25141
Xylenes, Total	ND	0.096		mg/Kg	1	5/5/2016 5:20:54 PM	25141
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	5/5/2016 5:20:54 PM	25141

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605109

09-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	LCS-25140		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	25140		RunNo:	33966				
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047132		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	93.0	65.8	136				
Surr: DNOP	4.7		5.000		94.2	70	130				

Sample ID	MB-25140		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25140		RunNo:	33966				
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047133		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	9.8		10.00		97.9	70	130				

## 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 | W Sample container temperature is out of limit as specified |



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605109

09-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	MB-25141	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25141	RunNo:	33991					
Prep Date:	5/4/2016	Analysis Date:	5/5/2016	SeqNo:	1047349	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	880		1000		88.4	80	120			

Sample ID	LCS-25141	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25141	RunNo:	33991					
Prep Date:	5/4/2016	Analysis Date:	5/4/2016	SeqNo:	1047350	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	97.7	80	120			
Surr: BFB	1000		1000		102	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  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605109

09-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	MB-25141		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	25141		RunNo:	33991			
Prep Date:	5/4/2016		Analysis Date:	5/5/2016		SeqNo:	1047378	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	LCS-25141		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	25141		RunNo:	33991			
Prep Date:	5/4/2016		Analysis Date:	5/5/2016		SeqNo:	1047379	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.6	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	1.0	0.050	1.000	0	104	82.8	121			
Xylenes, Total	3.1	0.10	3.000	0	105	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		119	80	120			

## 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 | W Sample container temperature is out of limit as specified |





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: RULE ENGINEERING LL

Work Order Number: 1605109

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/4/2016 7:55:00 AM

Completed By: Lindsay Mangin

5/4/2016 8:43:55 AM

Reviewed By: JO

05/04/16

### 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  $>0^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			



# Chain-of-Custody Record

Client: Rule Engineering, LLC

Mailing Address: 501 Airport Dr, Suite 205

Farmington, NM 87401

Phone #: (505) 716-2707

Email or Fax#: hwoods@ruleengineering.com

VQC Package:

Standard ☐ Level 4 (Full Validation)

Creditation

NELAP ☐ Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Turn-Around Time:

☐ Standard

☒ Rush Results Friday 5/6

Project Name:

Project #:

Enterprise Edgar Federal #7

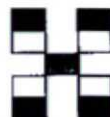
Project Manager:

Heather Woods

Sampler: H. Woods / J. Valdez

On Ice: ☒ Yes ☐ No

Sample Temperature: 1/4



**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 (Gas only)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
3/16	1545	Soil	SC-1	(1) 4oz Glass	Cold	-001	X	X										
3/16	1550	Soil	SC-2			-002	X	X										
3/16	1557	Soil	SC-3			-003	X	X										
3/16	1604	Soil	SC-4			-004	X	X										
3/16	1614	Soil	SC-5			-005	X	X										
3/16	1612	Soil	SC-6			-006	X	X										
3/16	1623	Soil	SC-7			-007	X	X										
3/16	1624	Soil	SC-8			-008	X	X										
3/16	1616	Soil	SC-9			-009	X	X										
3/16	1632	Soil	SC-10			-010	X	X										
3/16	1635	Soil	SC-11			-011	X	X										
NFS HW																		

Relinquished by: Heather M. Woods

Received by: Christine Werten Date 5/3/16 Time 1855

Relinquished by: Christine Werten

Received by: [Signature] Date 05/04/16 Time 0755

Remarks:  
Direct Bill to Enterprise  
Non-AFE: N25321  
Attn: Tom Long





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

May 09, 2016

Heather Woods  
Rule Engineering LLC  
501 Airport Dr., Ste 205  
Farmington, NM 87401  
TEL: (505) 325-1055  
FAX

RE: Enterprise Edgar Federal 7

OrderNo.: 1605108

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/4/2016 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](http://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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1605108

Date Reported: 5/9/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SP-1

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 5:02:00 PM

Lab ID: 1605108-001

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/4/2016 2:38:43 PM	25140
Surr: DNOP	99.3	70-130		%Rec	1	5/4/2016 2:38:43 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 9:34:07 AM	25141
Surr: BFB	95.3	80-120		%Rec	1	5/5/2016 9:34:07 AM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/5/2016 9:34:07 AM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 9:34:07 AM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 9:34:07 AM	25141
Xylenes, Total	ND	0.096		mg/Kg	1	5/5/2016 9:34:07 AM	25141
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	5/5/2016 9:34:07 AM	25141

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



**Hall Environmental Analysis Laboratory, Inc.**

Analytical Report

Lab Order 1605108

Date Reported: 5/9/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SP-2

Project: Enterprise Edgar Federal 7

Collection Date: 5/3/2016 4:55:00 PM

Lab ID: 1605108-002

Matrix: SOIL

Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/4/2016 3:00:36 PM	25140
Surr: DNOP	105	70-130		%Rec	1	5/4/2016 3:00:36 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/5/2016 9:58:39 AM	25141
Surr: BFB	92.5	80-120		%Rec	1	5/5/2016 9:58:39 AM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	5/5/2016 9:58:39 AM	25141
Toluene	ND	0.047		mg/Kg	1	5/5/2016 9:58:39 AM	25141
Ethylbenzene	ND	0.047		mg/Kg	1	5/5/2016 9:58:39 AM	25141
Xylenes, Total	ND	0.094		mg/Kg	1	5/5/2016 9:58:39 AM	25141
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	5/5/2016 9:58:39 AM	25141

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	W	Sample container temperature is out of limit as specified



**Analytical Report**

Lab Order 1605108

Date Reported: 5/9/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Rule Engineering LLC**Client Sample ID:** SP-3**Project:** Enterprise Edgar Federal 7**Collection Date:** 5/3/2016 1:45:00 PM**Lab ID:** 1605108-003**Matrix:** SOIL**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	12	10		mg/Kg	1	5/4/2016 3:22:23 PM	25140
Surr: DNOP	102	70-130		%Rec	1	5/4/2016 3:22:23 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 2:27:38 AM	25141
Surr: BFB	89.4	80-120		%Rec	1	5/5/2016 2:27:38 AM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/5/2016 2:27:38 AM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 2:27:38 AM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 2:27:38 AM	25141
Xylenes, Total	ND	0.096		mg/Kg	1	5/5/2016 2:27:38 AM	25141
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	5/5/2016 2:27:38 AM	25141

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Rule Engineering LLC  
**Project:** Enterprise Edgar Federal 7  
**Lab ID:** 1605108-004

**Matrix:** SOIL

**Client Sample ID:** SP-4  
**Collection Date:** 5/3/2016 4:50:00 PM  
**Received Date:** 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/4/2016 3:44:12 PM	25140
Surr: DNOP	102	70-130		%Rec	1	5/4/2016 3:44:12 PM	25140
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/5/2016 10:23:20 AM	25141
Surr: BFB	94.9	80-120		%Rec	1	5/5/2016 10:23:20 AM	25141
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/5/2016 10:23:20 AM	25141
Toluene	ND	0.048		mg/Kg	1	5/5/2016 10:23:20 AM	25141
Ethylbenzene	ND	0.048		mg/Kg	1	5/5/2016 10:23:20 AM	25141
Xylenes, Total	ND	0.096		mg/Kg	1	5/5/2016 10:23:20 AM	25141
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	1	5/5/2016 10:23:20 AM	25141

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

<b>Qualifiers:</b>	*	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	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605108

09-May-16

Client: Rule Engineering LLC

Project: Enterprise Edgar Federal 7

Sample ID	LCS-25140		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	25140		RunNo:	33966				
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047132		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	93.0	65.8	136				
Surr: DNOP	4.7		5.000		94.2	70	130				

Sample ID	MB-25140		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25140		RunNo:	33966				
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047133		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	9.8		10.00		97.9	70	130				

## 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 | W Sample container temperature is out of limit as specified |



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1605108

09-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	MB-25141		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	25141		RunNo:	33991				
Prep Date:	5/4/2016		Analysis Date:	5/5/2016		SeqNo:	1047349		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	880		1000		88.4	80	120				

Sample ID	LCS-25141		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	25141		RunNo:	33991				
Prep Date:	5/4/2016		Analysis Date:	5/4/2016		SeqNo:	1047350		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	97.7	80	120				
Surr: BFB	1000		1000		102	80	120				

Sample ID	1605108-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SP-1		Batch ID:	25141		RunNo:	33991				
Prep Date:	5/4/2016		Analysis Date:	5/5/2016		SeqNo:	1047351		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	30	4.9	24.27	0	123	59.3	143				
Surr: BFB	990		970.9		102	80	120				

Sample ID	1605108-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SP-1		Batch ID:	25141		RunNo:	33991				
Prep Date:	5/4/2016		Analysis Date:	5/5/2016		SeqNo:	1047352		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	32	4.9	24.61	0	132	59.3	143	8.78	20		
Surr: BFB	1000		984.3		106	80	120	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605108

09-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	MB-25141	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25141	RunNo:	33991					
Prep Date:	5/4/2016	Analysis Date:	5/5/2016	SeqNo:	1047378	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	LCS-25141	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25141	RunNo:	33991					
Prep Date:	5/4/2016	Analysis Date:	5/5/2016	SeqNo:	1047379	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.6	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	1.0	0.050	1.000	0	104	82.8	121			
Xylenes, Total	3.1	0.10	3.000	0	105	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		119	80	120			

## 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 | W Sample container temperature is out of limit as specified |





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: RULE ENGINEERING LL

Work Order Number: 1605108

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/4/2016 7:55:00 AM

Completed By: Lindsay Mangin

5/4/2016 8:31:37 AM

Reviewed By:

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			



## Friday 5/6

At Rush Results ~~574~~ 575

→

1

Enterprise Edgar Federal #7

**Project Manager:**

Heather Woods

Sampler: H. ibarra / J. Valdez

On Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
---------	---	-----------------------------

Sample Temperature: 1.4

HEAL No.

1605108

100-

-002

300-

722-

—

✓



Date \_\_\_\_\_ Time \_\_\_\_\_

13/11 18:

141

10/21/07

**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

[www.hallenviromental.com](http://www.hallenviromental.com)

4901 Hawkins NE - Albuquerque, NM 87110

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

## Analysis Request

BTEX + MTBE + TPH's (8021)
BTEX + MTBE + TPH (Gas only)
TPH 8015B (GRO / DRO / <del>TPH</del> )
TPH (Method 418.1)
EDB (Method 504.1)
PAH's (8310 or 8270 SIMS)
RCRA 8 Metals
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )
8081 Pesticides / 8082 PCB's
8260B (VOA)
8270 (Semi-VOA)
Air Bubbles (Y or N)

Air Bubbles (Y or N)

Remarks:

Direct Bill to Enterprise  
Non-AFE: N25321

Addn: Tom Long

If necessary, samples submitted to Han 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](http://www.hallenvironmental.com)

May 18, 2016

Heather Woods  
Rule Engineering LLC  
501 Airport Dr., Ste 205  
Farmington, NM 87401  
TEL: (505) 325-1055  
FAX

RE: Enterprise Edgar Federal 7

OrderNo.: 1605392

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/10/2016 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](http://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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 1605392

Date Reported: 5/18/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-12

Project: Enterprise Edgar Federal 7

Collection Date: 5/9/2016 10:55:00 AM

Lab ID: 1605392-001

Matrix: SOIL

Received Date: 5/10/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/16/2016 3:50:58 PM	25234
Surr: DNOP	89.7	70-130		%Rec	1	5/16/2016 3:50:58 PM	25234
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2016 1:53:26 PM	25244
Surr: BFB	107	80-120		%Rec	1	5/11/2016 1:53:26 PM	25244
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/11/2016 1:53:26 PM	25244
Toluene	ND	0.048		mg/Kg	1	5/11/2016 1:53:26 PM	25244
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2016 1:53:26 PM	25244
Xylenes, Total	ND	0.095		mg/Kg	1	5/11/2016 1:53:26 PM	25244
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/11/2016 1:53:26 PM	25244

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

<b>Qualifiers:</b>	* 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	W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605392

18-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	LCS-25300		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	25300		RunNo:	34242				
Prep Date:	5/13/2016		Analysis Date:	5/16/2016		SeqNo:	1055900		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.2		5.000		85.0	70	130				

Sample ID	MB-25234		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25234		RunNo:	34242				
Prep Date:	5/11/2016		Analysis Date:	5/16/2016		SeqNo:	1056603		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	70	130				

Sample ID: <b>LCS-25234</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>25234</b>		RunNo: <b>34242</b>							
Prep Date: <b>5/11/2016</b>	Analysis Date: <b>5/16/2016</b>		SeqNo: <b>1056604</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.7	65.8	136			
Surr: DNOP	4.2		5.000		83.8	70	130			

## 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 | W Sample container temperature is out of limit as specified |



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1605392

18-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	MB-25244	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25244	RunNo:	34138					
Prep Date:	5/10/2016	Analysis Date:	5/11/2016	SeqNo:	1053057	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	1000		1000		104	80	120			

Sample ID	LCS-25244	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25244	RunNo:	34138					
Prep Date:	5/10/2016	Analysis Date:	5/11/2016	SeqNo:	1053058	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	94.0	80	120			
Surr: BFB	1100		1000		110	80	120			

Sample ID	MB-25265	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25265	RunNo:	34190					
Prep Date:	5/11/2016	Analysis Date:	5/12/2016	SeqNo:	1054189	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	80	120			

Sample ID	LCS-25265	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25265	RunNo:	34190					
Prep Date:	5/11/2016	Analysis Date:	5/12/2016	SeqNo:	1054190	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		111	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
- W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605392

18-May-16

Client: Rule Engineering LLC  
Project: Enterprise Edgar Federal 7

Sample ID	MB-25244		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	25244		RunNo:	34138			
Prep Date:	5/10/2016		Analysis Date:	5/11/2016		SeqNo:	1053072		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	LCS-25244		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	25244		RunNo:	34138			
Prep Date:	5/10/2016		Analysis Date:	5/11/2016		SeqNo:	1053073		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.0	75.3	123			
Toluene	0.96	0.050	1.000	0	95.6	80	124			
Ethylbenzene	0.98	0.050	1.000	0	97.6	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	97.4	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	MB-25265		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	25265		RunNo:	34190			
Prep Date:	5/11/2016		Analysis Date:	5/12/2016		SeqNo:	1054205		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	LCS-25265		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	25265		RunNo:	34190			
Prep Date:	5/11/2016		Analysis Date:	5/12/2016		SeqNo:	1054206		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	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
- W Sample container temperature is out of limit as specified





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: RULE ENGINEERING LL

Work Order Number: 1605392

RcptNo: 1

Received by/date: At 05/10/16

Logged By: Anne Thorne 5/10/2016 7:55:00 AM

Completed By: Anne Thorne 5/10/2016

Reviewed By: WJG 05/10/16

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			



# Chain-of-Custody Record

Client: Rule Engineering, LLC

Mailing Address: 501 Airport Drive, Suite 205  
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other \_\_\_\_\_

☐ EDD (Type) \_\_\_\_\_

Turn-Around Time:

☒ Standard ☐ Rush \_\_\_\_\_

Project Name:

Enterprise Edgar Federal #7

Project #:

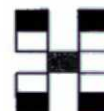
Project Manager:

Heather Woods

Sampler: H. Woods / J. Valdez

On Ice: ☒ Yes ☐ No

Sample Temperature: 28



## 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 (Gas only)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / VOA)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
5/9/16	1055	Soil	SC-12	(1) 4oz Glass	Cold	1005392	X		X													
<div style="transform: rotate(-45deg); position: absolute; top: 50%; left: 50%; font-size: 2em; opacity: 0.5;">             N/A N/A           </div>																						

Date: 5/9/16 Time: 1716 Relinquished by: Heather M. Woods

Received by: Christine White Date: 5/9/16 Time: 1716

Date: 5/9/16 Time: 1740 Relinquished by: Christine White

Received by: Christine White Date: 5/9/16 Time: 1740

Remarks:

Direct Bill to Enterprise  
Non-AFE: N25321  
Attn: Tom Long

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.