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

8/17/2017

3R-1011

Release Report/ General Correspondence

Enterprise SJ

Date: Apr-Jun 2017

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 2A-4**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **BLM**	Mineral Owner: **BLM**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	**24**	**27N**	**10W**	**1602**		**1484**		**San Juan**

Latitude 36.563480 Longitude 107.851010

OIL CONS. DIV DIST. 3

JUN 15 2017

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: **17.88 MCF Gas; 5-10 BBLS condensate**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **2/17/2017 @ 2:05 p.m.**	Date and Hour of Discovery: **2/17/2017 @ 2:30 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification: Cory Smith – NMOCD; Whitney Thomas - BLM	
By Whom? Thomas Long	Date and Hour March 2, 2017 @ 10:56 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On February 17, 2017, during routine operations a field operation technician identified a natural gas release on Lateral 2A-4 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation were completed on March 3, 2017.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 18 feet long by 18 feet wide by 13 feet deep. Approximately 124 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation approved land farm facility. A third party corrective action reports are 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: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 6/26/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: — Attached ☐
Date: 6/12/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

NVF1707334470

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CORRECTIVE ACTION REPORT

Property:

Lateral 2A-4 Pipeline Release
NW 1/4, S24 T27N R10W
San Juan County, New Mexico

May 10, 2017
Apex Project No. 725040112259

Prepared for:

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

Prepared by:

Chad D'Aponti
Project Scientist

Kyle Summers, CPG
Branch Manager / Senior Geologist

TABLE OF CONTENTS

LIST OF APPENDICES

APEX

CORRECTIVE ACTION REPORT

Lateral 2A-4 Pipeline Release
NW 1/4, S24 T27N R10W
San Juan County, New Mexico

Apex Project No. 725040112259

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral 2A-4 pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 24, Township 27 North, Range 10 West, in rural San Juan County, New Mexico (36.56348N, 107.85101W), referred to hereinafter as the "Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which transects the area from approximately north to south.

On February 17, 2017, a release of natural gas was discovered at the Site. Enterprise subsequently isolated and locked the line out of service. On March 2, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The pipeline was subsequently repaired.

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 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 TITAN, Inc. (Apex) utilized the general site characteristics obtained during the completion of corrective action activities and information available from the New Mexico Office of the State Engineer (OSE) to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table.

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

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

- No water wells were identified on the OSE website within one mile of the Site. Due to the proximity to the upper Armenta Canyon arroyo, groundwater may be encountered at depths of less than 50 feet below grade surface (bgs). This information supports a ranking score 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 score of "0".
- The release point is located approximately 138 feet from the upper Armenta Canyon arroyo which is identified as a "blue line" on the United States Geological Survey topographic map, resulting in a distance to surface water ranking score of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On February 17, 2017, a release of natural gas was discovered at the Site. Enterprise subsequently isolated and locked the line out of service. On March 2, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The pipeline was subsequently repaired. During the pipeline repair and corrective action activities, Foutz & Bursum Construction Co Inc., provided heavy equipment and labor support, and Apex provided environmental support.

On March 3, 2017, a total of five (5) confirmation soil samples (S-1 through S-5) were collected from the sidewalls and floor of the final excavation for laboratory analysis.

The final excavation measured approximately 18 feet long by 18 feet wide, with a total depth of approximately 13 feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand with slight clay.

A total of approximately 124 cubic yards of hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The

executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

Figure 3 is a Site Map that indicates the approximate sample locations in relation to the excavation extents and the location of the pipeline (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG® hydrocarbon analyzer system to guide excavation extents.

Apex's soil sampling program included the collection of five (5) confirmation soil samples (S-1 through S-5) from the excavation for laboratory analysis. Figure 3 depicts the approximate location of the excavated area and depicts the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

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

3.3 Laboratory Analytical Methods

The confirmation soil samples and stockpiled soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) 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 New Mexico Administrative Code 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 through S-5) to the OCD *RALs* for sites having a total ranking score of "40".

- The laboratory analyses of confirmation samples collected from soils remaining in place do not indicate benzene concentrations above the PQLs, which are below the OCD *RAL* of 10 milligrams per kilogram (mg/kg).

- The laboratory analyses of the confirmation samples collected from soils remaining in place do not indicate total BTEX concentrations above the PQLs, which are below the OCD *RAL* of 50 mg/kg.

- The laboratory analyses of the confirmation samples collected from soils remaining in place do not indicate combined TPH GRO/DRO/MRO concentrations above the PQLs, which are below the OCD *RAL* of 100 mg/kg for a Site ranking of "40".

The stockpiled soils resulting from the excavation were transported to the Envirotech landfarm near Hilltop, New Mexico, New Mexico for disposal/remediation.

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

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral 2A-4 pipeline release site is located within the Enterprise ROW in the NW ¼ of Section 24, Township 27 North, Range 10 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 production and gathering facilities, including the Enterprise natural gas gathering pipeline which transects the area from approximately north to south.

On February 17, 2017, a release of natural gas was discovered at the Site. Enterprise subsequently isolated and locked the line out of service. On March 2, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The pipeline was subsequently repaired.

- The primary objective of the environmental corrective action 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 poorly sorted silty sand with limited clay.

- The final excavation measured approximately 18 feet long by 18 feet wide, with a total depth of approximately 13 feet bgs.

- Prior to backfilling, five (5) confirmation samples soil samples were collected from the final excavation for laboratory analyses. Based on analytical results, soils remaining in place do not exhibit COC concentrations above the OCD *RALs* for a Site ranking of "40".

- A total of approximately 124 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with clean imported fill contoured to surrounding grade.

Based on field observations and laboratory analytical results, no additional investigation or corrective action warranted at this time.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

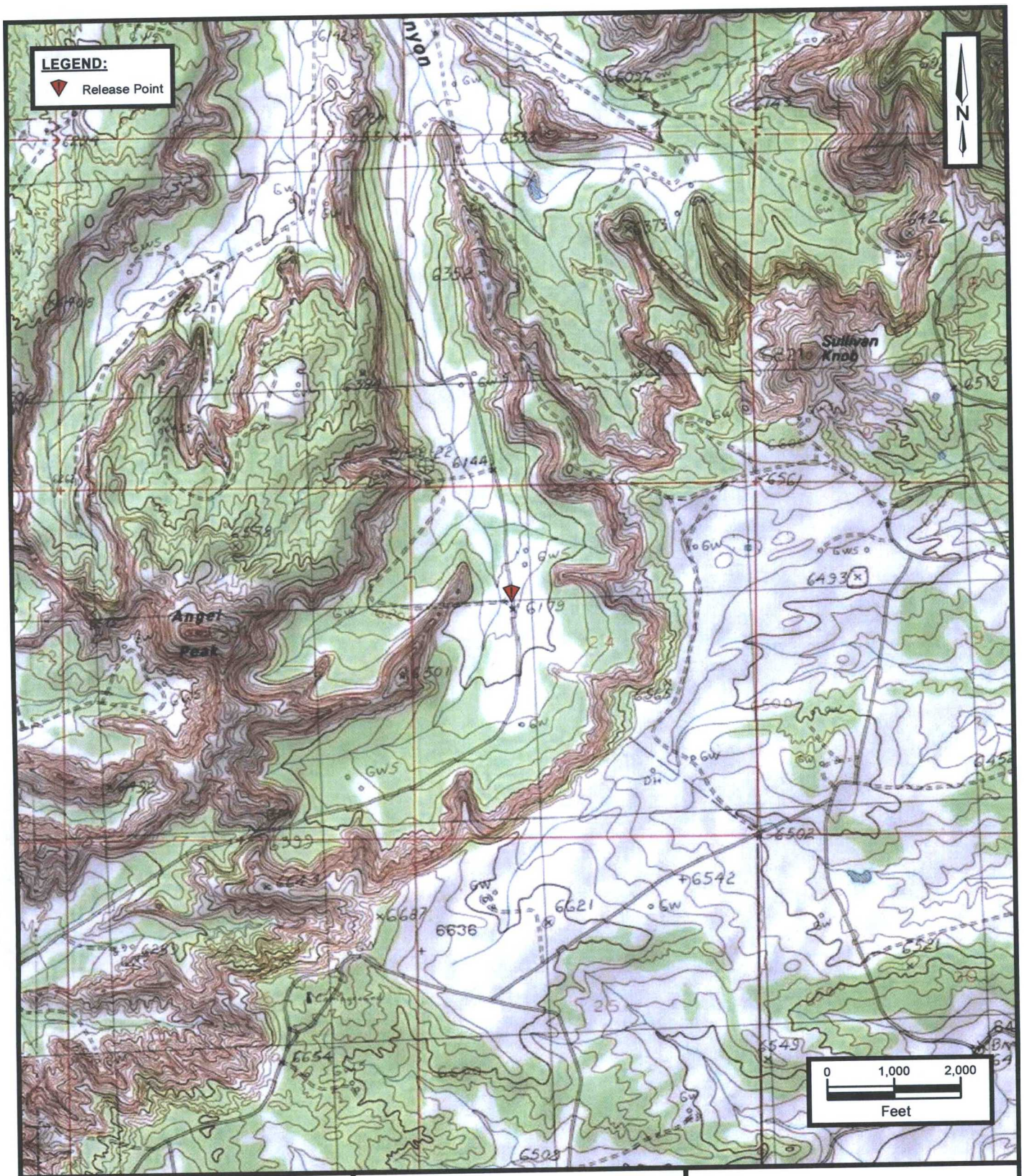
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work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

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

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

APPENDIX A

Figures



Lateral 2A-4
NW1/4 S24 T27N R10W
San Juan County, New Mexico
36.56348 N, 107.85101 W

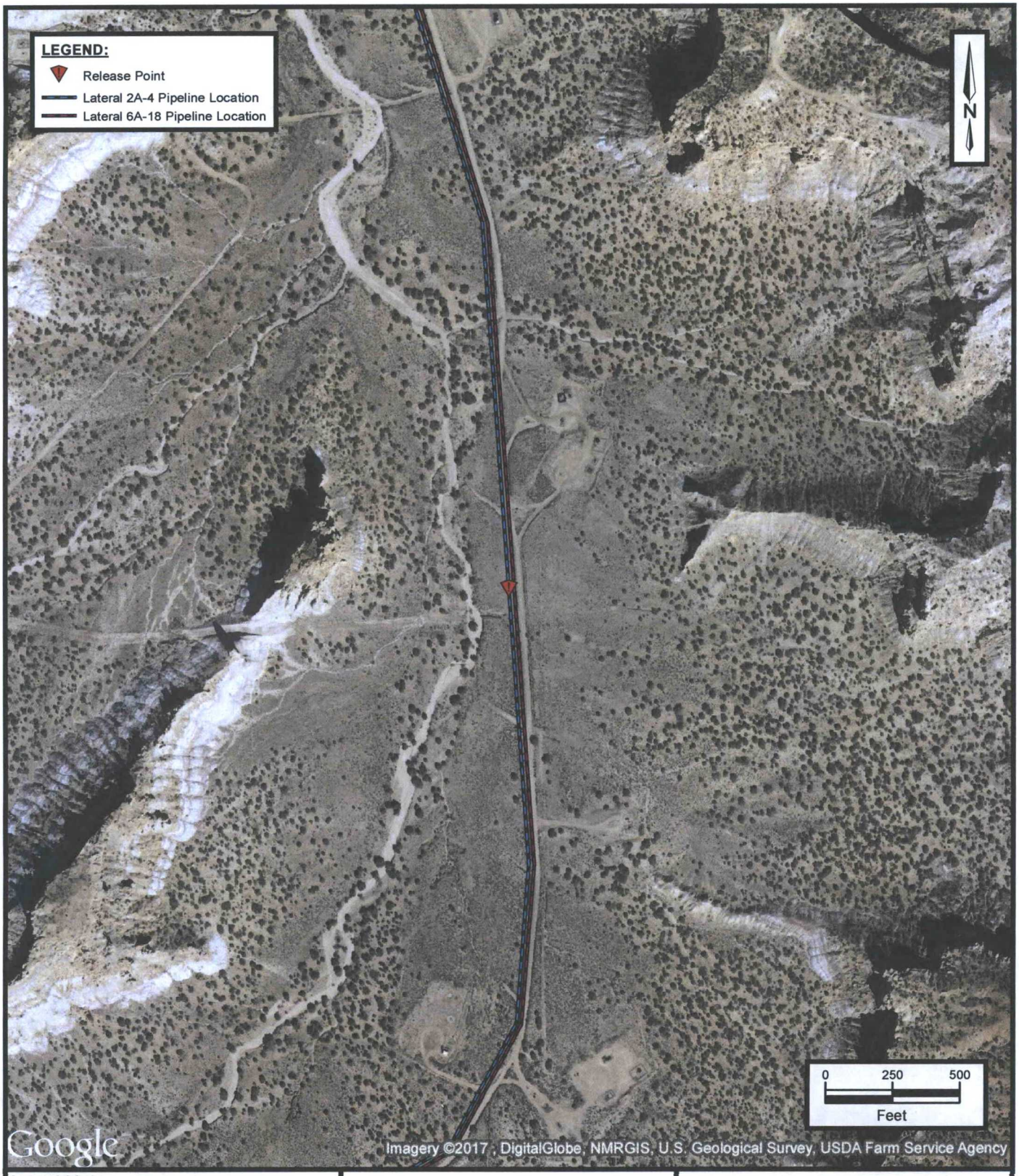
Project No. 725040112259

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

FIGURE 1

Topographic Map

C:\Users\jsimpson\Desktop\725040112259\Figure 1.mxd Modified 3/21/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral 2A-4
NW1/4 S24 T27N R10W
San Juan County, New Mexico
36.56348 N, 107.85101 W

Project No. 725040112259

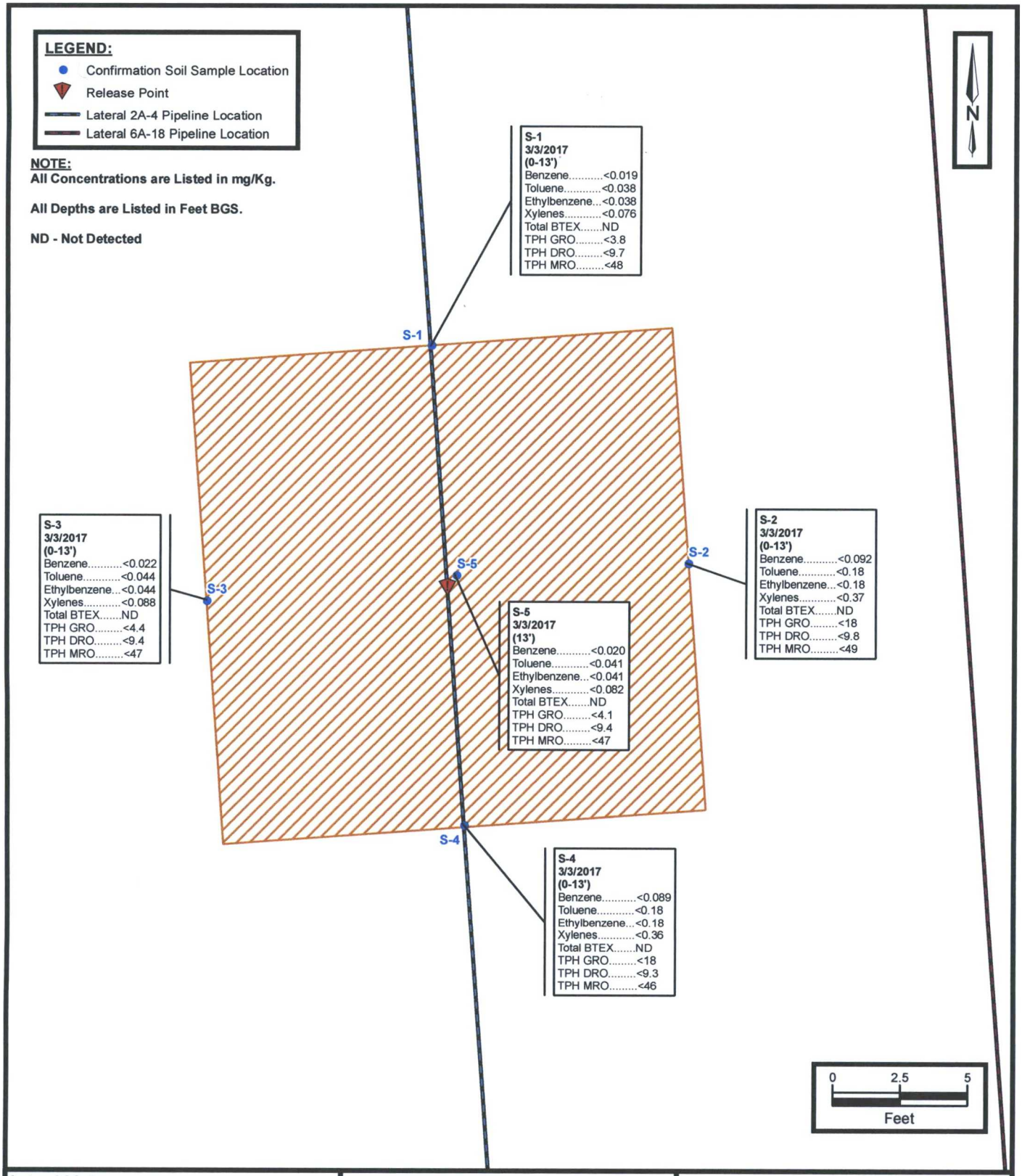
Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Service Layer Credits:
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, Aerial Photograph March 2015

C:\Users\jsimpson\Desktop\725040112259\Figure 2.mxd Modified 3/21/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral 2A-4
NW1/4 S24 T27N R10W
San Juan County, New Mexico
36.56348 N, 107.85101 W

Project No. 725040112259

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

FIGURE 3

Site Map

C:\Users\jsimpson\Desktop\725040112259\Figure 3.mxd Modified 3/21/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

APEX

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 97057-0830

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

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:**
Lateral 2A-4 Pipeline

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter F, Section 24, T27N, R10W; 36.563480, -107.851010 March 2017

4. **Source and Description of Waste:** Hydrocarbon impacted soils associated with a release from a natural gas pipeline.

5. Estimated Volume 50 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 124 (yd³) bbls

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

I, Thomas Long (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) 3-2-17, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

I, _____, 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: Foutz & Bursum, Prado, Tercero**

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

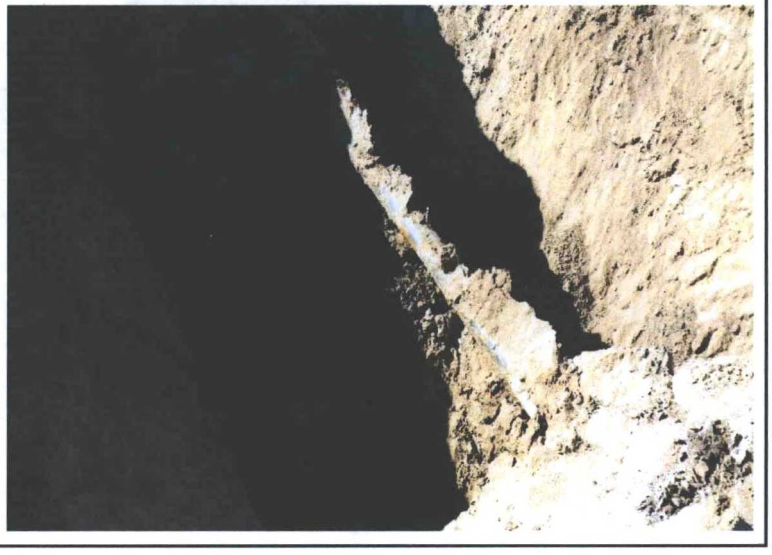
Waste Acceptance Status:
☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

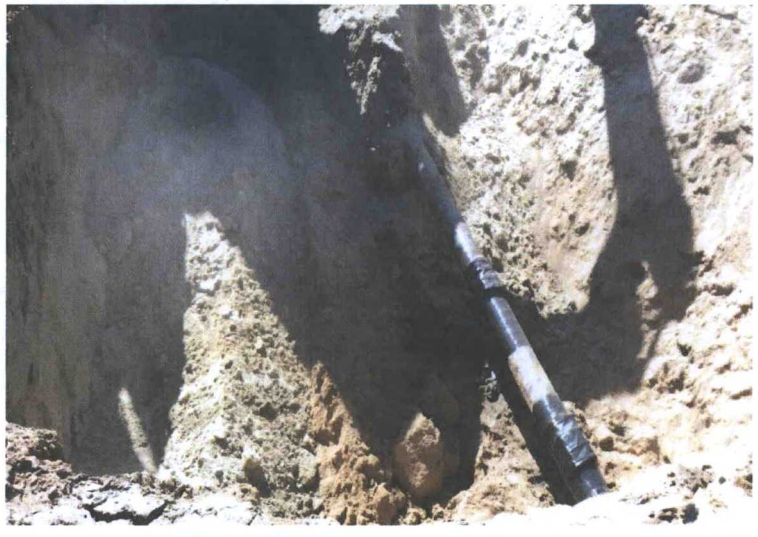
PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 3/3/17

SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

APPENDIX C

Photographic Documentation

Photograph 1 View of the source area.	
Photograph 2 Beginning of excavation activities.	
Photograph 3 View of the in-process excavation activities.	

Photograph 4 View of the in-process excavation activities.	
Photograph 5 View of the excavation, facing north.	
Photograph 6 View of the excavation, facing south.	

APPENDIX D

Table

TABLE 1
Lateral 2A-4 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)	TPH MRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100		
Excavation Soil Samples										
S-1	3.3.17	0 to 13	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.7	<48
S-2	3.3.17	0 to 13	<0.092	<0.18	<0.18	<0.37	ND	<18	<9.8	<49
S-3	3.3.17	0 to 13	<0.022	<0.044	<0.044	<0.088	ND	<4.4	<9.4	<47
S-4	3.3.17	0 to 13	<0.089	<0.18	<0.18	<0.36	ND	<18	<9.3	<46
S-5	3.3.17	13	<0.020	<0.041	<0.041	<0.082	ND	<4.1	<9.4	<47

ND = Not Detected above the Practical Quantitation Limits

NE = Not Established

mg/kg = milligram per kilogram

Appendix E

Laboratory Data Sheets & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

March 07, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral 2A-4 OrderNo.: 1703191

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/4/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1703191**
Date Reported: **3/7/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 2A-4
Lab ID: 1703191-001

Client Sample ID: S-1
Collection Date: 3/3/2017 10:30:00 AM
Matrix: MEOH (SOIL) **Received Date:** 3/4/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/6/2017 12:51:18 PM	30525
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/6/2017 12:51:18 PM	30525
Surr: DNOP	108	70-130		%Rec	1	3/6/2017 12:51:18 PM	30525
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/6/2017 9:53:45 AM	30516
Surr: BFB	91.5	54-150		%Rec	1	3/6/2017 9:53:45 AM	30516
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	3/6/2017 9:53:45 AM	30516
Toluene	ND	0.038		mg/Kg	1	3/6/2017 9:53:45 AM	30516
Ethylbenzene	ND	0.038		mg/Kg	1	3/6/2017 9:53:45 AM	30516
Xylenes, Total	ND	0.076		mg/Kg	1	3/6/2017 9:53:45 AM	30516
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	1	3/6/2017 9:53:45 AM	30516

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
Project: Lateral 2A-4
Lab ID: 1703191-002

Client Sample ID: S-2
Collection Date: 3/3/2017 10:35:00 AM
Matrix: MEOH (SOIL) **Received Date:** 3/4/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/6/2017 1:12:56 PM	30525
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/6/2017 1:12:56 PM	30525
Surr: DNOP	101	70-130		%Rec	1	3/6/2017 1:12:56 PM	30525
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/6/2017 10:17:17 AM	30516
Surr: BFB	91.9	54-150		%Rec	5	3/6/2017 10:17:17 AM	30516
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.092		mg/Kg	5	3/6/2017 10:17:17 AM	30516
Toluene	ND	0.18		mg/Kg	5	3/6/2017 10:17:17 AM	30516
Ethylbenzene	ND	0.18		mg/Kg	5	3/6/2017 10:17:17 AM	30516
Xylenes, Total	ND	0.37		mg/Kg	5	3/6/2017 10:17:17 AM	30516
Surr: 4-Bromofluorobenzene	122	66.6-132		%Rec	5	3/6/2017 10:17:17 AM	30516

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
Project: Lateral 2A-4
Lab ID: 1703191-003

Client Sample ID: S-3
Collection Date: 3/3/2017 10:40:00 AM
Matrix: MEOH (SOIL) **Received Date:** 3/4/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/6/2017 1:34:43 PM	30525
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/6/2017 1:34:43 PM	30525
Surr: DNOP	105	70-130		%Rec	1	3/6/2017 1:34:43 PM	30525
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	3/6/2017 10:40:42 AM	30516
Surr: BFB	91.1	54-150		%Rec	1	3/6/2017 10:40:42 AM	30516
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	3/6/2017 10:40:42 AM	30516
Toluene	ND	0.044		mg/Kg	1	3/6/2017 10:40:42 AM	30516
Ethylbenzene	ND	0.044		mg/Kg	1	3/6/2017 10:40:42 AM	30516
Xylenes, Total	ND	0.088		mg/Kg	1	3/6/2017 10:40:42 AM	30516
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	3/6/2017 10:40:42 AM	30516

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
Project: Lateral 2A-4
Lab ID: 1703191-004
Client Sample ID: S-4
Collection Date: 3/3/2017 10:45:00 AM
Matrix: MEOH (SOIL)
Received Date: 3/4/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/6/2017 1:56:21 PM	30525
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/6/2017 1:56:21 PM	30525
Surr: DNOP	101	70-130		%Rec	1	3/6/2017 1:56:21 PM	30525
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/6/2017 11:04:18 AM	30516
Surr: BFB	92.8	54-150		%Rec	5	3/6/2017 11:04:18 AM	30516
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.089		mg/Kg	5	3/6/2017 11:04:18 AM	30516
Toluene	ND	0.18		mg/Kg	5	3/6/2017 11:04:18 AM	30516
Ethylbenzene	ND	0.18		mg/Kg	5	3/6/2017 11:04:18 AM	30516
Xylenes, Total	ND	0.36		mg/Kg	5	3/6/2017 11:04:18 AM	30516
Surr: 4-Bromofluorobenzene	122	66.6-132		%Rec	5	3/6/2017 11:04:18 AM	30516

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
Project: Lateral 2A-4
Lab ID: 1703191-005
Client Sample ID: S-5
Collection Date: 3/3/2017 10:50:00 AM
Matrix: MEOH (SOIL)
Received Date: 3/4/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/6/2017 2:18:10 PM	30525
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/6/2017 2:18:10 PM	30525
Surr: DNOP	102	70-130		%Rec	1	3/6/2017 2:18:10 PM	30525
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	3/6/2017 11:27:45 AM	30516
Surr: BFB	94.0	54-150		%Rec	1	3/6/2017 11:27:45 AM	30516
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	3/6/2017 11:27:45 AM	30516
Toluene	ND	0.041		mg/Kg	1	3/6/2017 11:27:45 AM	30516
Ethylbenzene	ND	0.041		mg/Kg	1	3/6/2017 11:27:45 AM	30516
Xylenes, Total	ND	0.082		mg/Kg	1	3/6/2017 11:27:45 AM	30516
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	3/6/2017 11:27:45 AM	30516

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#: **1703191**

07-Mar-17

Client: APEX TITAN

Project: Lateral 2A-4

Sample ID **LCS-30525**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **30525**			RunNo: **41156**					
Prep Date: **3/6/2017**	Analysis Date: **3/6/2017**			SeqNo: **1289126**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.1	63.8	116			
Surr: DNOP	4.5		5.000		90.0	70	130			

Sample ID **MB-30525**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **30525**			RunNo: **41156**					
Prep Date: **3/6/2017**	Analysis Date: **3/6/2017**			SeqNo: **1289127**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		98.9	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#: **1703191**

07-Mar-17

Client: APEX TITAN

Project: Lateral 2A-4

Sample ID **MB-30516**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **30516**	RunNo: **41160**
Prep Date: **3/3/2017**	Analysis Date: **3/6/2017**	SeqNo: **1289697** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.3	54	150			

Sample ID **LCS-30516**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **30516**	RunNo: **41160**
Prep Date: **3/3/2017**	Analysis Date: **3/6/2017**	SeqNo: **1289698** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.0	76.4	125			
Surr: BFB	970		1000		97.5	54	150			

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#: **1703191**

07-Mar-17

Client: APEX TITAN

Project: Lateral 2A-4

Sample ID **MB-30516**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **30516**	RunNo: **41160**
Prep Date: **3/3/2017**	Analysis Date: **3/6/2017**	SeqNo: **1289735** 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	1.2		1.000		121	66.6	132			

Sample ID **LCS-30516**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **30516**	RunNo: **41160**
Prep Date: **3/3/2017**	Analysis Date: **3/6/2017**	SeqNo: **1289736** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	75.2	115			
Toluene	1.0	0.050	1.000	0	103	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	104	78.9	117			
Xylenes, Total	3.1	0.10	3.000	0	104	79.2	115			
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

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

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: 1703191 | RcptNo: 1

Received by/date: 03/04/17

Logged By: Lindsay Mangin 3/4/2017 9:30:00 AM

Completed By: Lindsay Mangin 3/6/2017 8:02:46 AM

Reviewed By: dvj 3/6/17

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 ☑	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
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 ☐	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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec NM

Project Manager: K. Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Chad D'Apert

Sampler's Signature:

Proj. No.: 725040.0225

Project Name: Lateral 2A-4

Lab use only
Due Date:

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

1 | 2 | 3 | 4 | 5

Page 1 of 1

ANALYSIS REQUESTED: BTEX 6021 / TPH DRO/GRO / MRO SOS

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	3/3/17	10:30			S-1						1		1703191-001
S		10:35			S-2						1		-002
S		10:40			S-3						1		-003
S		10:45			S-4						1		-004
S		10:50			S-5						1		-005

NFS (2)

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☑ 100% Rush Same Day

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3-3-17	845		3/3/17	1305
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3/3/17	1820		03/04/17	0938
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

AFE # N29639

Same Day

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/Runell Seale
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Gallegos Canyon Unit #203 DK**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **BLM**	Mineral Owner: **BLM**	API No. **NA**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	**24**	**28N**	**12W**	**2475**		**953**		**San Juan**

Latitude 36.64443 Longitude -108.05873

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: **Unknown**	Volume Recovered: **None**
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: **4/18/2017 @ 7:00 a.m.**	Date and Hour of Discovery: **4/18/2017 @ 7:00 a.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification: Vanessa Fields – NMOCD Whitney Thomas-BLM	
By Whom? Thomas Long	Date and Hour May 2, 2017 @ 8:28 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

OIL CONS. DIV DIST. 3
MAY 08 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On April 18, 2017, Enterprise responded to a natural gas release on the Gallegos Canyon Unit #203 well tie. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation were initiated on April 28, 2017 and Enterprise determined this release is reportable per NMOCD regulation on May 2, 2017, due to the volume of subsurface impacts.

Describe Area Affected and Cleanup Action Taken.* Repairs and remediation are currently in progress. 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: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 5/12/17 Expiration Date:
E-mail Address:jefields@eprod.com	~~Conditions of Approval:~~ Inc # NVF1713248433 Conditions of Approval Attached ☒
Date: 5/5/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 4/18/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _____ has been assigned. **Please refer to this case number in all future correspondence.**

NVF1713248433

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in 30 on or before 6/12/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Glen Griswold
OCD Environmental Bureau Chief
220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
glen.griswold@state.nm.us

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 C-11 (July 22, 2013)**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Navajo Allotment**	Mineral Owner: **Navajo Nation**	Serial Number:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
L	**11**	**27N**	**9W**	the **2160**	North (South)	the **947**	East (West)	**San Juan**

Latitude 36.58841 Longitude -107.76347

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release: **Estimated 10-15 Barrels of Condensate**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **July 22, 2013**	Date and Hour of Discovery: **July 22, 2013 @ 1:40 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Steve Austin - NNEPA	
By Whom? Aaron Dailey	Date and Time: July 23, 2013 @ 8:30 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On July 22, 2013, Enterprise technicians discovered a release on the Lateral C-11 pipeline. The pipeline was isolated, blown down, locked out and tagged out. Initial pipeline repair and remediation activities were completed in July 2013.

Describe Area Affected and Cleanup Action: Initial remediation activities occurred in July 2013. Subsequently, a work plan was submitted to New Mexico Oil Conservation Division (NMOCD) and the Navajo Nation Environmental Protection Agency (NNEPA) on December 2, 2013 with non- responsiveness. In October 2016, Enterprise initiated additional pipeline repairs at this release location with subsequent soil remediation activities. The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 91 feet long by 15 feet wide ranging from 4 to 12.5 feet deep. Approximately 271 cubic yards of hydrocarbon impacted soil were excavated and transported to a NMOCD 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: Jon E. Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: 4/28/17	Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: —	Attached ☐
Date: 3-13-17 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary #N3K1326732294

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CORRECTIVE ACTION REPORT

Property:

Lateral C-11 (July 2013) Pipeline Release
SW 1/4, S11 T27N R9W
San Juan County, New Mexico

February 8, 2017
Apex Project No. 7030414G018

Prepared for:

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

Prepared by:

Ranee Deechilly
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Project Manager

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CORRECTIVE ACTION REPORT

Lateral C-11 (July 2013) Pipeline Release
SW 1/4, S11 T27N R9W
San Juan County, New Mexico

Apex Project No. 7030414G018

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral C-11 (July 2013) pipeline release is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 11, Township 27 North, Range 9 West, in San Juan County, New Mexico (36.58841N, 107.76347W), referred to hereinafter as the "Site". The Site is located on Navajo Nation allotted lands. The Site is predominantly surrounded by native vegetation rangeland, periodically interrupted by oil and gas gathering facilities, and occasional private residences. The closest residence is located approximately 1,000 feet northwest of the Site. The Enterprise Lateral C-11 natural gas pipeline transects the area from approximately northeast to southwest.

On July 15, 2013, a release of natural gas was discovered at the Site. Animas Environmental Services, LLC (AES) completed the initial site assessment activities and collected 14 discrete soil samples (S-1 through S-14) from the repair excavation. Laboratory analytical results indicated constituent of concern (COC) concentrations above New Mexico Oil Conservation Division (OCD) *Remediation Action Levels (RALs)* in soils remaining on-Site. The excavation was subsequently backfilled with clean fill pending further site investigation activities. In December 2013, AES submitted a work plan to the New Mexico OCD, Bureau of Indian Affairs (BIA) and Navajo Nation Environmental Protection Agency (NNEPA) that included results from the initial site assessment and proposed investigative activities to evaluate potential hydrocarbon impact to soil and groundwater, however, approval from the BIA has apparently not yet been received. (*Continued Site Assessment Workplan*, dated November 22, 2013 – AES).

During 2014 and 2015, Enterprise pursued monitoring well drilling permits and water use permits through the Navajo Nation Water Code Administration (NNWCA) Department of Water Resources in order to proceed with proposed soil and groundwater investigative activities, but was unable to obtain them. In 2016, NNWCA Shiprock Field Office Compliance Officer Mr. Melvin Badonie indicated that well drilling and water use permits are not required for Sites located within Navajo Nation allotted lands. Also during 2016, the NNEPA indicated that BIA approval would be required on all environmental projects occurring on Navajo Nation lands if the work was not continuous with the initial response or pipeline repair activities.

During October 2016, Enterprise initiated additional pipeline repair activities at the Site to facilitate the replacement of approximately 80 feet of pipe. During these activities Enterprise elected to excavate within the ROW as an extension to the pipeline repair activities to remove as much remaining hydrocarbon-affected soils as practicable.

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 reduce the COCs in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) OCD *RALs* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

The Site is subject to regulatory oversight by the NNEPA and the New Mexico OCD. In the absence of published NNEPA regulatory guidance, Apex TITAN, Inc. (Apex) references 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 and information available from the Office of the New Mexico Office of the State Engineer (OSE) to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	**20**
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	**0**
	No	0	
Distance to Surface Water Body	<200 feet	20	**10**
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**30**

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 30. This ranking is based on the following:

- Based on depths to groundwater observed in groundwater monitoring wells located at the nearby Lateral C-11 (2012) Release Site, depth to groundwater at the Site is anticipated to be less than 50 feet below grade surface (bgs). This information supports a ranking score 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 score of "0".

- The Site is located approximately 600 feet southwest of an 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 score of "10".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

During October 2016, Enterprise initiated additional pipeline repair activities at the Site to facilitate the replacement of approximately 80 feet of pipe. During these activities Enterprise elected to excavate within the ROW as an extension to the pipeline repair activities to remove as much remaining hydrocarbon-affected soils as practicable. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Apex provided environmental support.

On November 15, 2016, a total of 13 confirmation soil samples (CS-1 through CS-13) were collected from the repair excavation. Additionally, three (3) soil samples (SP-1 through SP-3) were collected from the stockpiled soils to evaluate its potential for reuse as backfill. On November 30, 2016, the floor of the former release footprint was over-excavated and five (5) soil samples (CS-14 through CS-18) were collected to complete the analytical profile. Combined total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), and motor oil/mineral range organics (MRO) concentrations exceeded OCD standards, however, OCD gave permission to backfill.

The final excavation measured approximately 91 feet long by 15 feet wide, with total depths ranging from four (4) feet bgs to 12.5 feet bgs. The initial excavation was extended approximately 50 feet to the east and 17 feet to the west to facilitate the replacement of 80 feet of pipe. The extended excavation to the east was approximately five (5) feet deep bgs and the extended excavation to the west was approximately four (4) feet deep bgs.

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

A total of approximately 271 cubic yards of hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The landfarm mistakenly added these affected soils to the disposal ticket for the nearby Lateral C-11 (2012) release and as such the C-138 lists the combined volume of soil from these two (2) Sites. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and laboratory–confirmed stockpiled soils, and then contoured to surrounding grade.

Figure 3 is a Site Map with Soil Analytical Results that indicates the approximate location of the excavated area in relation to the pipeline (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 18 confirmation soil samples from the repair excavation and three (3) soil samples from the associated stockpiles for laboratory analysis.

The confirmation soil samples and stockpiled soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using laboratory supplied labels, 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 (HEAL) of Albuquerque, New Mexico for analysis.

3.3 Laboratory Analytical Methods

The confirmation soil samples and stockpiled soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and TPH GRO, DRO, and MRO 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 NNEPA and the New Mexico OCD. In the absence of published NNEPA regulatory guidance, Apex referenced the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code 19.15.29 *Release Notification*. These guidance documents establish investigation and abatement action requirements for 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 and stockpiled soil samples to the OCD *RALs* for sites having a total ranking score of "30". Soils associated with stockpile soil sample SP-2 were transported to an approved OCD facility for disposal/treatment and are not included in the following discussion.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils indicate 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 and the reused stockpiled soils indicate total BTEX concentrations below the PQLs, which are below the OCD *RAL* of 50 mg/kg.

- **The laboratory analysis of confirmation sample CS-17 indicates a combined TPH GRO/DRO/MRO concentration of 146 mg/kg, which exceeds the OCD RAL of 100 mg/kg.** The laboratory analyses of confirmation samples CS-1 through CS-16 and CS-18, and stockpiled soil samples SP-1 and SP-3 indicate combined TPH GRO/DRO/MRO concentrations ranging from below PQLs to 81 mg/kg (CS-14), which are below the OCD *RAL* of 100 mg/kg.

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

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral C-11 pipeline release Site is located within the Enterprise pipeline ROW in the SW ¼ of Section 11, Township 27 North, Range 9 West, in San Juan County, New Mexico. The Site is located on Navajo Nation allotted lands. The Site is predominantly surrounded by native vegetation rangeland, periodically interrupted by oil and gas gathering facilities, and occasional private residences. The closest residence is located approximately 1,000 feet northwest of the Site. The Enterprise Lateral C-11 natural gas pipeline transects the area from approximately northeast to southwest.

During October 2016, Enterprise initiated additional pipeline repair activities at the Site to facilitate the replacement of approximately 80 feet of pipe. During these activities Enterprise elected to excavate within the ROW as an extension to the pipeline repair activities to remove as much remaining hydrocarbon-affected soils as practicable.

- The primary objective of the environmental 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 sand and silty sand.

- The final excavation measured approximately 91 feet long by 15 feet wide, with total depths ranging from four (4) feet bgs to 12.5 feet bgs. The initial excavation was extended approximately 50 feet to the east and 17 feet to the west to allow the replacement of 80 feet of pipe. The extended excavation to the east was approximately five (5) feet deep bgs and the extended excavation to the west was approximately four (4) feet deep bgs.

- Prior to backfilling, 18 excavation soil samples and three (3) stockpiled soil samples were collected for laboratory analyses. Soils associated with stockpile samples SP-2 transported to an approved OCD facility for disposal/treatment. **Based on analytical results, one (1) soil sample from the soils remaining in place exhibited TPH GRO/DRO/MRO concentrations slightly above the above the OCD *RALs* for TPH GRO/DRO/MRO.**

- A total of approximately 271 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The landfarm mistakenly added these affected soils to the disposal ticket for the nearby Lateral C-11 (2012) release and as such the C-138 lists the combined volume of soil from these two (2) Sites. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and laboratory-confirmed stockpiled soils, and then contoured to the approximate surrounding grade.

Although one (1) soil sample from the soils remaining in place exhibited combined TPH GRO/DRO/MRO concentrations slightly in excess of the OCD RALs, the OCD granted Enterprise permission to backfill (close) the Site due to a lack of perceived risk to the environment. Based on the laboratory analytical results and OCD approval to backfill the Site, 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.

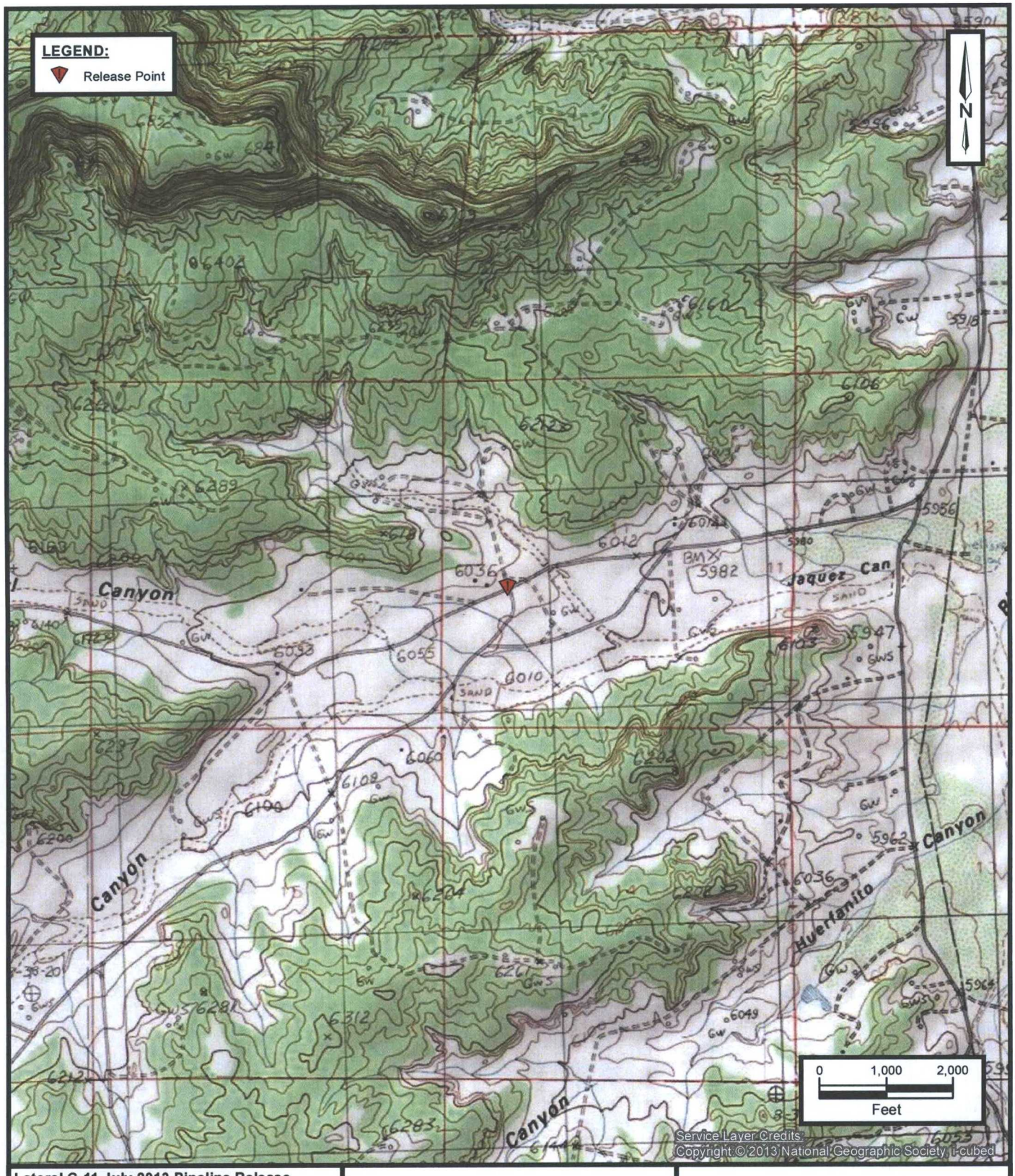
Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain

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



Lateral C-11 July 2013 Pipeline Release
SW 1/4 S11 T27N R9W
San Juan County, New Mexico
36.58841 N, 107.76347 W

Project No. 7030414G018

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

FIGURE 1

Topographic Map

Huerfanito Peak and Fresno Canyon
New Mexico Quadrangles
1985

Z:\Dallas South\Drafting\New Mexico\2014\7030414G018\Figure 1.mxd Modified 12/20/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

Lateral C-11 July 2013 Pipeline Release
SW 1/4 S11 T27N R9W
San Juan County, New Mexico
36.58841 N, 107.76347 W

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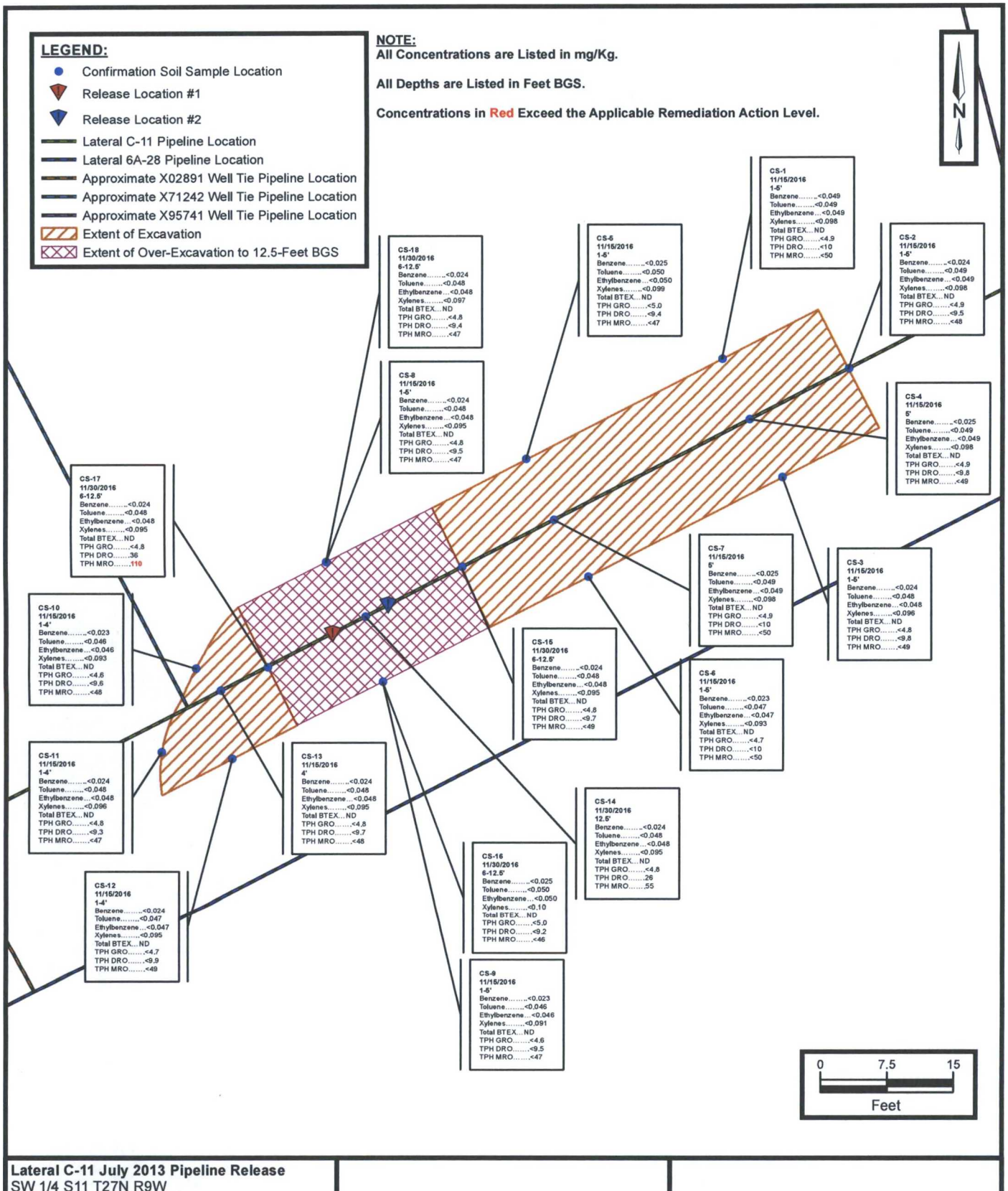
FIGURE 2

Site Vicinity Map

Aerial Photograph March 2016

Z:\Dallas South\Drafting\New Mexico\2014\7030414G018\Figure 2.mxd Modified 12/20/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral C-11 July 2013 Pipeline Release
SW 1/4 S11 T27N R9W
San Juan County, New Mexico
36.58841 N, 107.76347 W

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FIGURE 3

Site Map with Soil Analytical Results

Z:\Dallas South\Drafting\New Mexico\2014\7030414G018\Figure 3.mxd Modified 1/12/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

APEX

APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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

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

97057-0813

Form C-138
Revised 08/01/11

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

2. Originating Site:
Lateral C-11 2013 Pipeline Release

3. Location of Material (Street Address, City, State or ULSTR):
UL L Section 11 T27N R9W; 36.58841, -107.76347 December 2016

4. Source and Description of Waste: Hydrocarbon Impacted Soil associated with a natural gas pipeline release.
Estimated Volume 50 (yd^3) / bbls Known Volume (to be entered by the operator at the end of the haul) 1056 (yd^3) / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

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

☒ 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 (Thomas Long) 11-28-16, representative for Enterprise Products Operating authorize Envirotech, Inc. to complete
Generator Signature
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.

5. Transporter: TBD Flying M, HBL, West States

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM01-0011**
Address of Facility: **Hill Top, 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: 11/30/16

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

Surface Waste Management Facility Authorized Agent

APPENDIX C

Photographic Documentation

Photograph 1

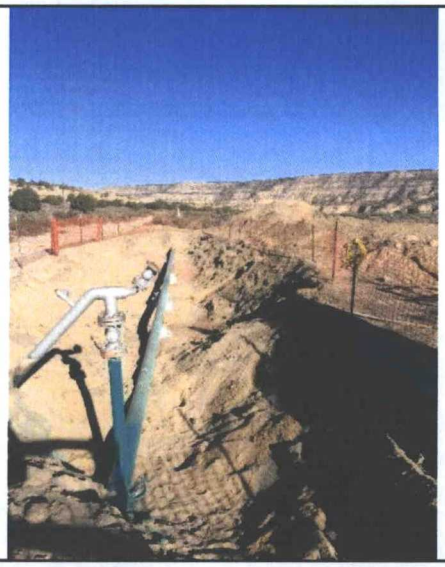
View of the source area, facing north-east.

Photograph 2

View of the in-process excavation activities, facing northeast.

Photograph 3

View of the repaired pipe, facing south-west.

Photograph 4 View of the repaired pipe, facing northeast.	
Photograph 5 View of the in-process over-excavation activities at the points of release, facing west. In this photo, the east-northeast portion of the unaffected extended pipeline replacement excavation has already been backfilled to facilitate the deeper excavation in the release area.	

APPENDIX D

Tables

TABLE 1
Lateral C-11 2013 Pipeline Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample (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)	TPH MRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100		
Samples from Stockpiled Soil Removed for Disposal/Treatment										
SP-2	11.15.16	Stockpile	<0.050	<0.050	<0.050	<0.10	ND	**<5.0**	**190**	**520**
Stockpile Soil Samples										
SP-1	11.15.16	Stockpile	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<10	<50
SP-3	11.15.16	Stockpile	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<9.9	<49
Excavation Confirmation Samples										
CS-1	11.15.16	1 to 5	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	<50
CS-2	11.15.16	1 to 5	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.5	<48
CS-3	11.15.16	1 to 5	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.8	<49
CS-4	11.15.16	5	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.8	<49
CS-5	11.15.16	1 to 5	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.4	<47
CS-6	11.15.16	1 to 5	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<10	<50
CS-7	11.15.16	5	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<10	<50
CS-8	11.15.16	1 to 5	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.5	<47
CS-9	11.15.16	1 to 5	<0.023	<0.046	<0.046	<0.091	ND	<4.6	<9.5	<47
CS-10	11.15.16	1 to 4	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<9.6	<48
CS-11	11.15.16	1 to 4	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.3	<47
CS-12	11.15.16	1 to 4	<0.024	<0.047	<0.047	<0.095	ND	<4.7	<9.9	<49
CS-13	11.15.16	4	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.7	<48
CS-14	11.30.16	12.5	<0.024	<0.048	<0.048	<0.095	ND	<4.8	26	55
CS-15	11.30.16	6 to 12.5	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.7	<49
CS-16	11.30.16	6 to 12.5	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.2	<46
CS-17	11.30.16	6 to 12.5	<0.024	<0.048	<0.048	<0.095	ND	**<4.8**	**36**	**110**
CS-18	11.30.16	6 to 12.5	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.4	<47

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

mg/kg = milligram per kilogram

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established

APEX

Appendix E

Laboratory Analytical Reports & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 21, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral C-11 2013 OrderNo.: 1611790

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/16/2016 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1611790**
Date Reported: **11/21/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral C-11 2013
Lab ID: 1611790-001 **Matrix:** SOIL

Client Sample ID: SP-1
Collection Date: 11/15/2016 2:00:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/17/2016 9:25:42 AM	28701
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/17/2016 9:25:42 AM	28701
Surr: DNOP	110	70-130		%Rec	1	11/17/2016 9:25:42 AM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/17/2016 12:08:22 PM	28714
Surr: BFB	95.1	68.3-144		%Rec	1	11/17/2016 12:08:22 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	11/17/2016 12:08:22 PM	28714
Toluene	ND	0.048		mg/Kg	1	11/17/2016 12:08:22 PM	28714
Ethylbenzene	ND	0.048		mg/Kg	1	11/17/2016 12:08:22 PM	28714
Xylenes, Total	ND	0.096		mg/Kg	1	11/17/2016 12:08:22 PM	28714
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	11/17/2016 12:08:22 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611790-002 **Matrix:** SOIL

Client Sample ID: SP-2
Collection Date: 11/15/2016 2:10:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	190	97		mg/Kg	10	11/17/2016 1:32:48 PM	28701
Motor Oil Range Organics (MRO)	520	480		mg/Kg	10	11/17/2016 1:32:48 PM	28701
Surr: DNOP	0	70-130	S	%Rec	10	11/17/2016 1:32:48 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/17/2016 1:21:43 PM	28714
Surr: BFB	94.6	68.3-144		%Rec	1	11/17/2016 1:21:43 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	11/17/2016 1:21:43 PM	28714
Toluene	ND	0.050		mg/Kg	1	11/17/2016 1:21:43 PM	28714
Ethylbenzene	ND	0.050		mg/Kg	1	11/17/2016 1:21:43 PM	28714
Xylenes, Total	ND	0.10		mg/Kg	1	11/17/2016 1:21:43 PM	28714
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	11/17/2016 1:21:43 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611790-003 **Matrix:** SOIL

Client Sample ID: SP-3
Collection Date: 11/15/2016 2:20:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/17/2016 3:49:09 PM	28701
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/17/2016 3:49:09 PM	28701
Surr: DNOP	100	70-130		%Rec	1	11/17/2016 3:49:09 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/17/2016 2:34:53 PM	28714
Surr: BFB	96.1	68.3-144		%Rec	1	11/17/2016 2:34:53 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	11/17/2016 2:34:53 PM	28714
Toluene	ND	0.050		mg/Kg	1	11/17/2016 2:34:53 PM	28714
Ethylbenzene	ND	0.050		mg/Kg	1	11/17/2016 2:34:53 PM	28714
Xylenes, Total	ND	0.10		mg/Kg	1	11/17/2016 2:34:53 PM	28714
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	11/17/2016 2:34:53 PM	28714

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#: **1611790**

21-Nov-16

Client: APEX TITAN
Project: Lateral C-11 2013

Sample ID **MB-28701**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28701**	RunNo: **38768**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1211355** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.1	70	130			

Sample ID **LCS-28701**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **28701**	RunNo: **38768**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1211490** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.8	62.6	124			
Surr: DNOP	4.2		5.000		83.6	70	130			

Sample ID **1611790-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP-1**	Batch ID: **28701**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212056** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.7	48.45	0	106	51.6	130			
Surr: DNOP	4.6		4.845		94.6	70	130			

Sample ID **1611790-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP-1**	Batch ID: **28701**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212057** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.2	46.17	0	104	51.6	130	6.31	20	
Surr: DNOP	4.2		4.617		91.9	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#: **1611790**

21-Nov-16

Client: APEX TITAN
Project: Lateral C-11 2013

Sample ID **MB-28714**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212132** 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	950		1000		94.6	68.3	144			

Sample ID **LCS-28714**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212133** 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	89.9	74.6	123			
Surr: BFB	1000		1000		102	68.3	144			

Sample ID **1611790-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP-2**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212136** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	23.95	0	102	61.3	150			
Surr: BFB	980		957.9		102	68.3	144			

Sample ID **1611790-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP-2**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212137** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.18	0	95.8	61.3	150	5.07	20	
Surr: BFB	1000		967.1		104	68.3	144	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#: **1611790**

21-Nov-16

Client: APEX TITAN

Project: Lateral C-11 2013

Sample ID **MB-28714**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212159** 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		102	80	120			

Sample ID **LCS-28714**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212160** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	75.2	115			
Toluene	1.1	0.050	1.000	0	110	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	102	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	99.6	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID **1611790-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP-1**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212162** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9515	0	111	71.5	122			
Toluene	1.0	0.048	0.9515	0	108	71.2	123			
Ethylbenzene	1.0	0.048	0.9515	0	106	75.2	130			
Xylenes, Total	2.9	0.095	2.854	0	103	72.4	131			
Surr: 4-Bromofluorobenzene	1.0		0.9515		108	80	120			

Sample ID **1611790-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP-1**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212163** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9328	0	109	71.5	122	3.75	20	
Toluene	1.0	0.047	0.9328	0	109	71.2	123	1.47	20	
Ethylbenzene	0.97	0.047	0.9328	0	104	75.2	130	3.81	20	
Xylenes, Total	2.9	0.093	2.799	0	103	72.4	131	2.09	20	
Surr: 4-Bromofluorobenzene	0.96		0.9328		103	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1611790 RcptNo: 1

Received by/date: AG 11/16/16

Logged By: Ashley Gallegos 11/16/2016 8:00:00 AM AG

Completed By: Ashley Gallegos 11/16/2016 8:25:16 AM AG

Reviewed By: JC 11/16/16

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° 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	1.6	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.6°C

1 | 2 | 3 | 4 | 5

Page 1 of 1

Sampler's Name: Ranee Deechilly

Sampler's Signature:

Proj. No.

Project Name: Lateral C-11 2013

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	ANALYSIS REQUESTED: 8021 BTEX	8015 TPH GRO/DRO/MRO	Lab Sample ID (Lab Use Only)
S	11/15/16	1400			SP-1						1		X	X	16 11790-001
S	11/15/16	1410			SP-2						1		X	X	-002
S	11/15/16	1420			SP-3						1		X	X	-003

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush 48hour Res

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/15/16	1701		11/15/16	1701
	11/15/16	1827		11/16/16	0800

NOTES:

Bill to Tom Long EPPOD

Non-AFE N21720

48 hr Rush

Friday morning

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

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 06, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral C-11 2013 OrderNo.: 1612018

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/1/2016 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral C-11 2013
Lab ID: 1612018-001 **Matrix:** SOIL

Client Sample ID: CS-14
Collection Date: 11/30/2016 12:15:00 PM
Received Date: 12/1/2016 8:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	26	9.8		mg/Kg	1	12/5/2016 10:47:15 AM	28971
Motor Oil Range Organics (MRO)	55	49		mg/Kg	1	12/5/2016 10:47:15 AM	28971
Surr: DNOP	103	70-130		%Rec	1	12/5/2016 10:47:15 AM	28971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/2/2016 10:00:11 AM	28954
Surr: BFB	82.5	68.3-144		%Rec	1	12/2/2016 10:00:11 AM	28954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/2/2016 10:00:11 AM	28954
Toluene	ND	0.048		mg/Kg	1	12/2/2016 10:00:11 AM	28954
Ethylbenzene	ND	0.048		mg/Kg	1	12/2/2016 10:00:11 AM	28954
Xylenes, Total	ND	0.095		mg/Kg	1	12/2/2016 10:00:11 AM	28954
Surr: 4-Bromofluorobenzene	93.5	80-120		%Rec	1	12/2/2016 10:00:11 AM	28954

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
Project: Lateral C-11 2013
Lab ID: 1612018-002 **Matrix:** SOIL

Client Sample ID: CS-15
Collection Date: 11/30/2016 12:25:00 PM
Received Date: 12/1/2016 8:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/5/2016 11:08:53 AM	28971
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/5/2016 11:08:53 AM	28971
Surr: DNOP	98.4	70-130		%Rec	1	12/5/2016 11:08:53 AM	28971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/2/2016 11:10:55 AM	28954
Surr: BFB	82.5	68.3-144		%Rec	1	12/2/2016 11:10:55 AM	28954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/2/2016 11:10:55 AM	28954
Toluene	ND	0.048		mg/Kg	1	12/2/2016 11:10:55 AM	28954
Ethylbenzene	ND	0.048		mg/Kg	1	12/2/2016 11:10:55 AM	28954
Xylenes, Total	ND	0.095		mg/Kg	1	12/2/2016 11:10:55 AM	28954
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	12/2/2016 11:10:55 AM	28954

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
Project: Lateral C-11 2013
Lab ID: 1612018-003 **Matrix:** SOIL

Client Sample ID: CS-16
Collection Date: 11/30/2016 12:35:00 PM
Received Date: 12/1/2016 8:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/5/2016 11:30:29 AM	28971
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/5/2016 11:30:29 AM	28971
Surr: DNOP	101	70-130		%Rec	1	12/5/2016 11:30:29 AM	28971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/2/2016 12:21:56 PM	28954
Surr: BFB	82.4	68.3-144		%Rec	1	12/2/2016 12:21:56 PM	28954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/2/2016 12:21:56 PM	28954
Toluene	ND	0.050		mg/Kg	1	12/2/2016 12:21:56 PM	28954
Ethylbenzene	ND	0.050		mg/Kg	1	12/2/2016 12:21:56 PM	28954
Xylenes, Total	ND	0.10		mg/Kg	1	12/2/2016 12:21:56 PM	28954
Surr: 4-Bromofluorobenzene	97.1	80-120		%Rec	1	12/2/2016 12:21:56 PM	28954

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
Project: Lateral C-11 2013
Lab ID: 1612018-004 **Matrix:** SOIL

Client Sample ID: CS-17
Collection Date: 11/30/2016 12:45:00 PM
Received Date: 12/1/2016 8:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	36	9.4		mg/Kg	1	12/5/2016 12:13:58 PM	28971
Motor Oil Range Organics (MRO)	110	47		mg/Kg	1	12/5/2016 12:13:58 PM	28971
Surr: DNOP	103	70-130		%Rec	1	12/5/2016 12:13:58 PM	28971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/2/2016 12:45:35 PM	28954
Surr: BFB	82.6	68.3-144		%Rec	1	12/2/2016 12:45:35 PM	28954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/2/2016 12:45:35 PM	28954
Toluene	ND	0.048		mg/Kg	1	12/2/2016 12:45:35 PM	28954
Ethylbenzene	ND	0.048		mg/Kg	1	12/2/2016 12:45:35 PM	28954
Xylenes, Total	ND	0.095		mg/Kg	1	12/2/2016 12:45:35 PM	28954
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	1	12/2/2016 12:45:35 PM	28954

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
Project: Lateral C-11 2013
Lab ID: 1612018-005 **Matrix:** SOIL

Client Sample ID: CS-18
Collection Date: 11/30/2016 12:55:00 PM
Received Date: 12/1/2016 8:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/5/2016 11:52:22 AM	28971
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/5/2016 11:52:22 AM	28971
Surr: DNOP	98.1	70-130		%Rec	1	12/5/2016 11:52:22 AM	28971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/2/2016 1:09:12 PM	28954
Surr: BFB	82.1	68.3-144		%Rec	1	12/2/2016 1:09:12 PM	28954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/2/2016 1:09:12 PM	28954
Toluene	ND	0.048		mg/Kg	1	12/2/2016 1:09:12 PM	28954
Ethylbenzene	ND	0.048		mg/Kg	1	12/2/2016 1:09:12 PM	28954
Xylenes, Total	ND	0.097		mg/Kg	1	12/2/2016 1:09:12 PM	28954
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	12/2/2016 1:09:12 PM	28954

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#: **1612018**

06-Dec-16

Client: APEX TITAN

Project: Lateral C-11 2013

Sample ID **LCS-28971**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **28971**			RunNo: **39131**					
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**			SeqNo: **1224358**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.5	62.6	124			
Surr: DNOP	4.7		5.000		93.4	70	130			

Sample ID **MB-28971**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **28971**			RunNo: **39131**					
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**			SeqNo: **1224359**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.6	70	130			

Sample ID **MB-28987**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **28987**			RunNo: **39131**					
Prep Date: **12/5/2016**	Analysis Date: **12/5/2016**			SeqNo: **1224588**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

Sample ID **LCS-28987**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **28987**			RunNo: **39131**					
Prep Date: **12/5/2016**	Analysis Date: **12/5/2016**			SeqNo: **1224590**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.0	70	130			

Sample ID **1612018-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **CS-14**	Batch ID: **28971**			RunNo: **39131**					
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**			SeqNo: **1224688**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	86	9.5	47.48	26.00	127	51.6	130			
Surr: DNOP	5.0		4.748		105	70	130			

Sample ID **1612018-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **CS-14**	Batch ID: **28971**			RunNo: **39131**					
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**			SeqNo: **1224689**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	76	9.7	48.45	26.00	102	51.6	130	13.3	20	

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#: **1612018**

06-Dec-16

Client: APEX TITAN

Project: Lateral C-11 2013

Sample ID	**1612018-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**CS-14**	Batch ID:	**28971**		RunNo:	**39131**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**		SeqNo:	**1224689**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	5.0		4.845		104	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#: **1612018**

06-Dec-16

Client: APEX TITAN

Project: Lateral C-11 2013

Sample ID **MB-28954**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223834** 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	810		1000		81.3	68.3	144			

Sample ID **LCS-28954**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223835** 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	93.3	74.6	123			
Surr: BFB	860		1000		85.6	68.3	144			

Sample ID **1612018-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CS-15**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223838** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.51	0	89.0	61.3	150			
Surr: BFB	870		980.4		89.2	68.3	144			

Sample ID **1612018-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CS-15**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223839** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.44	0	111	61.3	150	22.2	20	R
Surr: BFB	880		977.5		90.4	68.3	144	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#: **1612018**

06-Dec-16

Client: APEX TITAN
Project: Lateral C-11 2013

Sample ID **MB-28954**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223861** 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	0.94		1.000		94.5	80	120			

Sample ID **LCS-28954**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223862** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	110	75.2	115			
Toluene	0.99	0.050	1.000	0	98.9	80.7	112			
Ethylbenzene	0.94	0.050	1.000	0	93.8	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	93.3	79.2	115			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.0	80	120			

Sample ID **1612018-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-14**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223864** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9671	0	109	61.5	138			
Toluene	1.0	0.048	0.9671	0	104	71.4	127			
Ethylbenzene	0.96	0.048	0.9671	0	99.6	70.9	132			
Xylenes, Total	2.9	0.097	2.901	0	98.6	76.2	123			
Surr: 4-Bromofluorobenzene	1.0		0.9671		103	80	120			

Sample ID **1612018-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-14**	Batch ID: **28954**	RunNo: **39123**
Prep Date: **12/1/2016**	Analysis Date: **12/2/2016**	SeqNo: **1223865** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.024	0.9416	0	129	61.5	138	14.4	20	
Toluene	1.2	0.047	0.9416	0	122	71.4	127	13.6	20	
Ethylbenzene	1.1	0.047	0.9416	0	119	70.9	132	15.3	20	
Xylenes, Total	3.3	0.094	2.825	0	118	76.2	123	15.3	20	
Surr: 4-Bromofluorobenzene	0.96		0.9416		102	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1612018 | RcptNo: 1

Received by/date: LM 12/01/16

Logged By: Lindsey Concha 12/1/2016 8:25:00 AM

Completed By: Lindsey Concha 12/01/16

Reviewed By: AJS 12/01/16

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° 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	1.6	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO#:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.6

1 | 2 | 3 | 4 | 5

Page 1 of 1

Sampler's Name: Ranee Deechilly

Sampler's Signature:

Proj. No.

Project Name: Lateral C-11 2013

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO/MRO

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	11/30/16	1215			CS-14						1		1612018-001
		1225			CS-15						1		-002
		1235			CS-16						1		-003
		1245			CS-17						1		-004
V	V	1255			CS-18						1		-005

NES

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush — Rush 1 by 12/5

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/30/16	1630		11/30/16	1630
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/30/16	1964		12/01/16	0825
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 (EPROD)

Non-AFE N21720

Monday turn around

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

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

November 21, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral C-11 2013 OrderNo.: 1611791

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/16/2016 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1611791**
Date Reported: **11/21/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-1
Project: Lateral C-11 2013
Collection Date: 11/15/2016 11:45:00 AM
Lab ID: 1611791-001
Matrix: SOIL
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/17/2016 9:53:16 AM	28701
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/17/2016 9:53:16 AM	28701
Surr: DNOP	90.7	70-130		%Rec	1	11/17/2016 9:53:16 AM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/17/2016 2:59:22 PM	28714
Surr: BFB	93.0	68.3-144		%Rec	1	11/17/2016 2:59:22 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	11/17/2016 2:59:22 PM	28714
Toluene	ND	0.049		mg/Kg	1	11/17/2016 2:59:22 PM	28714
Ethylbenzene	ND	0.049		mg/Kg	1	11/17/2016 2:59:22 PM	28714
Xylenes, Total	ND	0.098		mg/Kg	1	11/17/2016 2:59:22 PM	28714
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	11/17/2016 2:59:22 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-002 **Matrix:** SOIL

Client Sample ID: CS-2
Collection Date: 11/15/2016 11:55:00 AM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/17/2016 4:16:06 PM	28701
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/17/2016 4:16:06 PM	28701
Surr: DNOP	91.0	70-130		%Rec	1	11/17/2016 4:16:06 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/17/2016 3:23:48 PM	28714
Surr: BFB	92.1	68.3-144		%Rec	1	11/17/2016 3:23:48 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/17/2016 3:23:48 PM	28714
Toluene	ND	0.049		mg/Kg	1	11/17/2016 3:23:48 PM	28714
Ethylbenzene	ND	0.049		mg/Kg	1	11/17/2016 3:23:48 PM	28714
Xylenes, Total	ND	0.098		mg/Kg	1	11/17/2016 3:23:48 PM	28714
Surr: 4-Bromofluorobenzene	98.5	80-120		%Rec	1	11/17/2016 3:23:48 PM	28714

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: CS-3
Project: Lateral C-11 2013
Collection Date: 11/15/2016 12:05:00 PM
Lab ID: 1611791-003
Matrix: SOIL
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/17/2016 4:43:23 PM	28701
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/17/2016 4:43:23 PM	28701
Surr: DNOP	91.5	70-130		%Rec	1	11/17/2016 4:43:23 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/17/2016 3:48:12 PM	28714
Surr: BFB	93.0	68.3-144		%Rec	1	11/17/2016 3:48:12 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/17/2016 3:48:12 PM	28714
Toluene	ND	0.048		mg/Kg	1	11/17/2016 3:48:12 PM	28714
Ethylbenzene	ND	0.048		mg/Kg	1	11/17/2016 3:48:12 PM	28714
Xylenes, Total	ND	0.096		mg/Kg	1	11/17/2016 3:48:12 PM	28714
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	11/17/2016 3:48:12 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-004 **Matrix:** SOIL

Client Sample ID: CS-4
Collection Date: 11/15/2016 12:15:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/17/2016 3:21:56 PM	28701
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/17/2016 3:21:56 PM	28701
Surr: DNOP	99.5	70-130		%Rec	1	11/17/2016 3:21:56 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/17/2016 5:49:49 PM	28714
Surr: BFB	92.3	68.3-144		%Rec	1	11/17/2016 5:49:49 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	11/17/2016 5:49:49 PM	28714
Toluene	ND	0.049		mg/Kg	1	11/17/2016 5:49:49 PM	28714
Ethylbenzene	ND	0.049		mg/Kg	1	11/17/2016 5:49:49 PM	28714
Xylenes, Total	ND	0.098		mg/Kg	1	11/17/2016 5:49:49 PM	28714
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	11/17/2016 5:49:49 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-005 **Matrix:** SOIL

Client Sample ID: CS-5
Collection Date: 11/15/2016 12:25:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/17/2016 1:49:41 PM	28701
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/17/2016 1:49:41 PM	28701
Surr: DNOP	90.7	70-130		%Rec	1	11/17/2016 1:49:41 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/17/2016 6:14:18 PM	28714
Surr: BFB	94.2	68.3-144		%Rec	1	11/17/2016 6:14:18 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	11/17/2016 6:14:18 PM	28714
Toluene	ND	0.050		mg/Kg	1	11/17/2016 6:14:18 PM	28714
Ethylbenzene	ND	0.050		mg/Kg	1	11/17/2016 6:14:18 PM	28714
Xylenes, Total	ND	0.099		mg/Kg	1	11/17/2016 6:14:18 PM	28714
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	11/17/2016 6:14:18 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-006 **Matrix:** SOIL

Client Sample ID: CS-6
Collection Date: 11/15/2016 12:35:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/17/2016 2:11:53 PM	28701
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/17/2016 2:11:53 PM	28701
Surr: DNOP	90.5	70-130		%Rec	1	11/17/2016 2:11:53 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/17/2016 6:38:42 PM	28714
Surr: BFB	91.5	68.3-144		%Rec	1	11/17/2016 6:38:42 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/17/2016 6:38:42 PM	28714
Toluene	ND	0.047		mg/Kg	1	11/17/2016 6:38:42 PM	28714
Ethylbenzene	ND	0.047		mg/Kg	1	11/17/2016 6:38:42 PM	28714
Xylenes, Total	ND	0.093		mg/Kg	1	11/17/2016 6:38:42 PM	28714
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	11/17/2016 6:38:42 PM	28714

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: CS-7
Project: Lateral C-11 2013
Collection Date: 11/15/2016 12:45:00 PM
Lab ID: 1611791-007
Matrix: SOIL
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/17/2016 2:37:56 PM	28701
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/17/2016 2:37:56 PM	28701
Surr: DNOP	84.8	70-130		%Rec	1	11/17/2016 2:37:56 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/17/2016 7:03:06 PM	28714
Surr: BFB	93.1	68.3-144		%Rec	1	11/17/2016 7:03:06 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	11/17/2016 7:03:06 PM	28714
Toluene	ND	0.049		mg/Kg	1	11/17/2016 7:03:06 PM	28714
Ethylbenzene	ND	0.049		mg/Kg	1	11/17/2016 7:03:06 PM	28714
Xylenes, Total	ND	0.098		mg/Kg	1	11/17/2016 7:03:06 PM	28714
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	11/17/2016 7:03:06 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-008 **Matrix:** SOIL

Client Sample ID: CS-8
Collection Date: 11/15/2016 12:55:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/17/2016 3:00:05 PM	28701
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/17/2016 3:00:05 PM	28701
Surr: DNOP	84.6	70-130		%Rec	1	11/17/2016 3:00:05 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/17/2016 7:27:29 PM	28714
Surr: BFB	92.7	68.3-144		%Rec	1	11/17/2016 7:27:29 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/17/2016 7:27:29 PM	28714
Toluene	ND	0.048		mg/Kg	1	11/17/2016 7:27:29 PM	28714
Ethylbenzene	ND	0.048		mg/Kg	1	11/17/2016 7:27:29 PM	28714
Xylenes, Total	ND	0.095		mg/Kg	1	11/17/2016 7:27:29 PM	28714
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	11/17/2016 7:27:29 PM	28714

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: CS-9
Project: Lateral C-11 2013
Collection Date: 11/15/2016 1:05:00 PM
Lab ID: 1611791-009
Matrix: SOIL
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/17/2016 3:22:21 PM	28701
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/17/2016 3:22:21 PM	28701
Surr: DNOP	87.8	70-130		%Rec	1	11/17/2016 3:22:21 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/17/2016 7:51:49 PM	28714
Surr: BFB	88.7	68.3-144		%Rec	1	11/17/2016 7:51:49 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/17/2016 7:51:49 PM	28714
Toluene	ND	0.046		mg/Kg	1	11/17/2016 7:51:49 PM	28714
Ethylbenzene	ND	0.046		mg/Kg	1	11/17/2016 7:51:49 PM	28714
Xylenes, Total	ND	0.091		mg/Kg	1	11/17/2016 7:51:49 PM	28714
Surr: 4-Bromofluorobenzene	94.9	80-120		%Rec	1	11/17/2016 7:51:49 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-010 **Matrix:** SOIL

Client Sample ID: CS-10
Collection Date: 11/15/2016 1:15:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/17/2016 3:44:23 PM	28701
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/17/2016 3:44:23 PM	28701
Surr: DNOP	82.9	70-130		%Rec	1	11/17/2016 3:44:23 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/17/2016 8:16:10 PM	28714
Surr: BFB	91.1	68.3-144		%Rec	1	11/17/2016 8:16:10 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/17/2016 8:16:10 PM	28714
Toluene	ND	0.046		mg/Kg	1	11/17/2016 8:16:10 PM	28714
Ethylbenzene	ND	0.046		mg/Kg	1	11/17/2016 8:16:10 PM	28714
Xylenes, Total	ND	0.093		mg/Kg	1	11/17/2016 8:16:10 PM	28714
Surr: 4-Bromofluorobenzene	97.9	80-120		%Rec	1	11/17/2016 8:16:10 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-011
Matrix: SOIL
Client Sample ID: CS-11
Collection Date: 11/15/2016 1:25:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/17/2016 4:06:37 PM	28701
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/17/2016 4:06:37 PM	28701
Surr: DNOP	86.6	70-130		%Rec	1	11/17/2016 4:06:37 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/17/2016 8:40:31 PM	28714
Surr: BFB	88.9	68.3-144		%Rec	1	11/17/2016 8:40:31 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/17/2016 8:40:31 PM	28714
Toluene	ND	0.048		mg/Kg	1	11/17/2016 8:40:31 PM	28714
Ethylbenzene	ND	0.048		mg/Kg	1	11/17/2016 8:40:31 PM	28714
Xylenes, Total	ND	0.096		mg/Kg	1	11/17/2016 8:40:31 PM	28714
Surr: 4-Bromofluorobenzene	94.3	80-120		%Rec	1	11/17/2016 8:40:31 PM	28714

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: CS-12
Project: Lateral C-11 2013
Collection Date: 11/15/2016 1:35:00 PM
Lab ID: 1611791-012
Matrix: SOIL
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/17/2016 4:28:42 PM	28701
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/17/2016 4:28:42 PM	28701
Surr: DNOP	86.2	70-130		%Rec	1	11/17/2016 4:28:42 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/17/2016 9:04:49 PM	28714
Surr: BFB	93.1	68.3-144		%Rec	1	11/17/2016 9:04:49 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/17/2016 9:04:49 PM	28714
Toluene	ND	0.047		mg/Kg	1	11/17/2016 9:04:49 PM	28714
Ethylbenzene	ND	0.047		mg/Kg	1	11/17/2016 9:04:49 PM	28714
Xylenes, Total	ND	0.095		mg/Kg	1	11/17/2016 9:04:49 PM	28714
Surr: 4-Bromofluorobenzene	99.9	80-120		%Rec	1	11/17/2016 9:04:49 PM	28714

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
Project: Lateral C-11 2013
Lab ID: 1611791-013 **Matrix:** SOIL

Client Sample ID: CS-13
Collection Date: 11/15/2016 1:45:00 PM
Received Date: 11/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/17/2016 1:27:29 PM	28701
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/17/2016 1:27:29 PM	28701
Surr: DNOP	82.5	70-130		%Rec	1	11/17/2016 1:27:29 PM	28701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/17/2016 9:29:09 PM	28714
Surr: BFB	92.5	68.3-144		%Rec	1	11/17/2016 9:29:09 PM	28714
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/17/2016 9:29:09 PM	28714
Toluene	ND	0.048		mg/Kg	1	11/17/2016 9:29:09 PM	28714
Ethylbenzene	ND	0.048		mg/Kg	1	11/17/2016 9:29:09 PM	28714
Xylenes, Total	ND	0.095		mg/Kg	1	11/17/2016 9:29:09 PM	28714
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	11/17/2016 9:29:09 PM	28714

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#: **1611791**

21-Nov-16

Client: APEX TITAN
Project: Lateral C-11 2013

Sample ID **MB-28701**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28701**	RunNo: **38768**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1211355** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.1	70	130			

Sample ID **LCS-28701**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **28701**	RunNo: **38768**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1211490** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.8	62.6	124			
Surr: DNOP	4.2		5.000		83.6	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#: **1611791**

21-Nov-16

Client: APEX TITAN

Project: Lateral C-11 2013

Sample ID	**MB-28714**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**28714**	RunNo:	**38798**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212132**	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	950		1000		94.6	68.3	144			

Sample ID	**LCS-28714**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**28714**	RunNo:	**38798**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212133**	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	89.9	74.6	123			
Surr: BFB	1000		1000		102	68.3	144			

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#: **1611791**

21-Nov-16

Client: APEX TITAN

Project: Lateral C-11 2013

Sample ID **MB-28714**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212159** 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		102	80	120			

Sample ID **LCS-28714**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **28714**	RunNo: **38798**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212160** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	75.2	115			
Toluene	1.1	0.050	1.000	0	110	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	102	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	99.6	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	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

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: 1611791 | RcptNo: 1

Received by/date: 11/16/16

Logged By: Ashley Gallegos 11/16/2016 8:00:00 AM

Completed By: Ashley Gallegos 11/16/2016 8:35:23 AM

Reviewed By: 11/16/16

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° 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	1.6	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.6°C

1 | 2 | 3 | 4 | 5

Page 1 of 2

Sampler's Name: Ranee Deehilly

Sampler's Signature:

Proj. No.

Project Name: Lateral C-11 2013

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO / MRO

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	11/15/16	1145			CS-1						1		1611791-001
		1155			CS-2								-002
		1205			CS-3								-003
		1215			CS-4								-004
		1225			CS-5								-005
		1235			CS-6								-006
		1245			CS-7								-007
		1255			CS-8								-008
		1305			CS-9								-009
		1315			CS-10								-010

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush 48 hr Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/15/16	1701		11/15/16	1701
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/15/16	1827		11/16/16	0800
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 EPROD

Non AFE N21720

48 hr Rush

Friday morning

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.6°C

1 | 2 | 3 | 4 | 5

Page 2 of 2

Sampler's Name: Ranee Deechilly

Sampler's Signature:

Proj. No.

Project Name: Lateral C-11 2013

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO/MRO

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O										Lab Sample ID (Lab Use Only)
S	11/15/16	1325			CS-11						1		X	X								1611791-001
↓	↓	1335			CS-12						1		X	X								-002
↓	↓	1345			CS-13						1		X	X								-003

NPS

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush 48 hr Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/15/16	1701		11/15/16	1701
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/15/16	1827		11/16/16	0800
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 (EPPOD)

Non AFE N21720

48 hr Rush

Friday morning

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/Runell Seale
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **MB-18 Pipeline**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Private**	Mineral Owner: **BLM**	API No. **NA**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	**20**	**31N**	**8W**	**1612**		**1682**		**San Juan**

OIL CONS. DIV DIST. 3

MAY 08 2017

Latitude 36.886080 Longitude -107.701957

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: **Unknown**	Volume Recovered: **None**
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: **4/24/2017 @ 1:10 a.m.**	Date and Hour of Discovery: **4/24/2017 @ 1:10 a.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification: Vanessa Fields – NMOCD	
By Whom? Thomas Long	Date and Hour May 1, 2017 @ 12:35 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On April 24, 2017, Enterprise responded to a natural gas release on the MB-18 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation were initiated on April 28, 2017 and Enterprise determined this release is reportable per NMOCD regulation on May 1, 2017, due to the volume of subsurface impacts.

Describe Area Affected and Cleanup Action Taken.* Repairs and remediation are currently in progress. 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: J. E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 5/11/2017 Expiration Date:
E-mail Address:jefields@eprod.com	~~Conditions of Approval:~~ Inc# NVF1713151792 Attached ☒
Date: 5/5/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

Conditions of Approval → Sample Area 8015, 8021 Include MRO Range

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 5/8/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _____ has been assigned. **Please refer to this case number in all future correspondence.** NVF1713151792

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in 30 days_ on or before 6/8/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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/Runell Seale
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286/505-599-2124
Facility Name: **Gordon #3**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **BLM**	Mineral Owner: **BLM**	API No. **NA**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	**23**	**27N**	**10W**	**767**		**953**		**San Juan**

Latitude 36.5555580 Longitude -107.859306

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: **Unknown**	Volume Recovered: **None**
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: **3/282017 @ 3:00 p.m.**	Date and Hour of Discovery: **3/28/2017 @ 3:00 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification: Vanessa Fields – NMOCD Whitney Thomas-BLM	
By Whom? Runell Seale	Date and Hour April 6, 2017 @ 4:00 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On March 28, 2017, Enterprise responded to a possible leak on the Gordon #3 pipeline during. Enterprise technician verified the leak and the pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation are currently in progress and Enterprise has determined this release is reportable per NMOCD regulation on April 6, 2017, due to the volume of subsurface impacts.

Describe Area Affected and Cleanup Action Taken.* Repairs and remediation are currently in progress. 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: J. E. Fields	**OIL CONSERVATION DIVISION**
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 4/24/2017 Expiration Date:
E-mail Address:jefields@eprod.com	~~Conditions of Approval:~~ OIL CONS. DIV DIST. 3 Attached ☒
Date: 4/8/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

APR 14 2017

NVF1711435283

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **_04/14/2017_** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number **nVF1711435283** has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in 30 days_ on or before 5/14/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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