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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: **Enterprise Field Services, LLC**	OGRID: **151618**
Contact Name: **Thomas Long**	Contact Telephone: **505-599-2286**
Contact email:**tjlong@eprod.com**	Incident # *(assigned by OCD)*: **NVF1829738401**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.579895** Longitude **-107.429920** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Lateral K-61 Pipeline**	Site Type **Natural Gas Gathering Pipeline**
Date Release Discovered: **8/10/2018 at 1:30 p.m.**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
A	**14**	**27N**	**6W**	**Rio Arriba**

NMOCD
DEC 07 2018
DISTRICT III

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* **Twin Peaks Partners, LLC**)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls): **5-7 BBLs**	Volume Recovered (bbls): **None**
☒ Natural Gas	Volume Released (Mcf): **0.808 MCF**	Volume Recovered (Mcf): **None**
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release Cause of Release: On August 10, 2018 an Enterprise technician discovered a release of natural gas on the Lateral K-61 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Enterprise determined this release reportable per NMOCD regulation on August 15, 2018, due the volume of impacted subsurface soil. Repairs are remediation were completed on October 19, 2018. The contaminant mass was removed by mechanical excavation. The final excavation dimensions measured approximately 15 feet long by 16 feet wide by 9 feet deep. Approximately 56 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party closure report is included with this "Final." C-141.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jon E. Fields Title: Director, Field Environmental

Signature: Jon E. Fields Date: 11-29-18

email: jefields@eprod.com Telephone: (713) 381-6684

OCD Only

Received by: Vanessa Fields Date: 12/7/18

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Date: 1/2/2019

Printed Name: Vanessa Fields Title: Environmental Specalist

CLOSURE REPORT

Property:

Lateral K-61 (8/10/18) Pipeline Release
NE 1/4, S14 T27N R6W
Rio Arriba County, New Mexico

October 25, 2018
Apex Project No. 725040112506

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 Geologist

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LIST OF APPENDICES

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CLOSURE REPORT

Lateral K-61 (8/10/18) Pipeline Release
NE 1/4, S14 T27N R6W
Rio Arriba County, New Mexico

Apex Project No. 725040112506

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral K-61 Pipeline Release site, referred to hereinafter as the "Site", is located in the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 14, Township 27 North, Range 6 West, in rural Rio Arriba County, New Mexico (36.579598N, 107.429920W). The Site is located on private land. The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities, including the Enterprise Lateral K-61 natural gas pipeline which traverses the area from approximately northwest to southeast.

On August 10, 2018, a release of natural gas occurred on the Lateral K-61 pipeline. Enterprise subsequently isolated and locked the line out of service. On August 16, 2018, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release.

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 closure activities was to reduce constituent of concern (COC) concentrations in the on-Site soils to below the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) closure criteria using the New Mexico EMNRD OCD's New Mexico Administrative Code (NMAC) 19.15.29 *Releases* as guidance.

2.0 CLOSURE CRITERIA

In accordance with the New Mexico ENMRD OCD's NMAC 19.15.29 *Releases*, Apex TITAN, Inc. (Apex) utilized the general site characteristics obtained during the implementation of closure activities and information available from the New Mexico Office of the State Engineer (OSE) and the New Mexico EMNRD OCD Imaging database to determine the appropriate closure criteria for the Site.

- No water wells were identified within a half a mile of the Site on the OSE Water Rights Reporting System (WRSS) database. Four (4) cathodic protection wells (San Juan 28-6 Unit #81, #182 (Unit SW, Sec 12 T27 R6W), San Juan 28-6 Unit #181, #196 (Unit NE, Sec 14 T27 R6W), San Juan 28-6 #308 (Sec 11 T27N R6W), San Juan 28-6 #179 (Unit C, Sec 13 T27N R6W)) were identified within half a mile from the Site with depths to water ranging from 100 feet below grade surface (bgs) to 220 feet bgs.

- The Site is located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse. The Site is located approximately 205 feet north of Carrizo Canyon Wash that is identified as a "blue line" on the United States Geological Survey (USGS) topographic map.
- The Site is not located within 200 feet of a lakebed, sinkhole or playa lake.
- The Site is not located within 300 feet from a permanent residence, school, hospital, institution or church.
- No springs or private, domestic fresh water wells used by less than five (5) households for domestic or stock water purposes were identified within 500 feet of the Site.
- No fresh water wells or springs were identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3.
- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- The Site is not located within an unstable area.
- The Site is not located within a 100-year floodplain.

Based on the evaluation of the site characterization, cleanup goals for soils remaining in place at the Site include:

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On August 16, 2018, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release. During the pipeline repair and earthwork activities, OFT Construction Inc. provided heavy equipment and labor support, and Apex provided environmental consulting support.

The final remediation excavation measured approximately 15 feet long by 16 feet wide and was sloped at the northeast and southwest sidewalls for safety. The maximum depth of the excavation measured approximately nine (9) feet bgs.

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

A total of approximately 56 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix B**. The excavation was backfilled with imported fill and segregated, laboratory-confirmed, unaffected stockpiled soil, and contoured to surrounding grade.

Figure 3 is a map with soil sample locations that depicts the approximate dimensions of the excavation with respect to 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.

On August 16, 2018, two (2) composite soil samples (S-1 and S-2) were collected from the east and west end-wall of the pipe chase, prior to the planned extension of the excavation to accommodate a longer section of new pipe. On October 19, 2018, three (3) composite soil samples (S-3 through S-5) were collected from the sidewalls and the base of the final excavation for laboratory analysis. In addition, one (1) composite soil sample (SP-1) was collected from the soils that were designated for reuse, to confirm the material was suitable to remain on-Site.

The samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, New Mexico, under proper chain-of-custody procedures.

3.3 Laboratory Analytical Methods

The composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021/8260, 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, and chlorides using EPA Method #300.0.

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 NMAC 19.15.29 *Releases*. which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Soil Samples

Apex compared the BTEX, TPH, and Chloride concentrations or laboratory practical quantitation limits (PQLs) associated with the composite soil samples (S-1 through S-5, and SP-1) to the New Mexico EMNRD OCD closure criteria.

- The laboratory analyses of the composite soil samples collected from soils remaining in place do not indicate benzene concentrations above the laboratory PQLs, which are below the New Mexico EMNRD OCD closure criteria of 10 mg/kg.
- The laboratory analyses of the composite soil samples collected from soils remaining in place do not indicate total BTEX concentrations above the laboratory PQLs, which are below the New Mexico EMNRD OCD closure criteria of 50 mg/kg.
- The laboratory analyses of the composite soil samples collected from soils remaining in place do not indicate combined TPH GRO/DRO/MRO concentrations above the laboratory PQLs, which are below the New Mexico EMNRD OCD closure criteria of 100 mg/kg.
- The laboratory analyses of the composite soil samples collected from soils remaining in place indicate chloride concentrations ranging from below the laboratory PQLs to 170 mg/kg (S-4), which are below the New Mexico OCD closure criteria of 600 mg/kg.

Laboratory analytical results are summarized in **Table 1** in **Appendix D.**

5.0 RECLAMATION AND RE-VEGETATION

The excavation was backfilled with imported fill and contoured to the surrounding grade. Enterprise will re-seed the Site with a BLM Farmington Field Office approved seeding mixture at the beginning of the next favorable growing season.

6.0 FINDINGS AND RECOMMENDATIONS

The Lateral K-61 Pipeline Release Site is located in the Enterprise pipeline ROW in the NE ¼ of Section 14, Township 27 North, Range 6 West, in rural Rio Arriba County, New Mexico. The Site is located on private land. The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities, including the Enterprise Lateral K-61 natural gas pipeline which traverses the area from approximately northwest to southeast.

On August 10, 2018, a release of natural gas occurred on the Lateral K-61 pipeline. Enterprise subsequently isolated and locked the line out of service. On August 16, 2018, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release.

- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria identified in NMAC 19.15.29 *Releases.*

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

- The final remediation excavation measured approximately 15 feet long by 16 feet wide and was sloped at the northeast and southwest sidewalls for safety. The maximum depth of the excavation measured approximately nine (9) feet bgs.

- Prior to backfilling, five (5) composite soil samples were collected from the excavation and one (1) composite soil sample was collected from stockpiled soils. Based on soil analytical results, soils remaining in place do not exhibit COC concentrations above the New Mexico EMNRD OCD closure criteria.

- A total of approximately 56 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with imported fill and segregated, laboratory-confirmed, unaffected stockpiled soil, and contoured to surrounding grade.

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

7.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

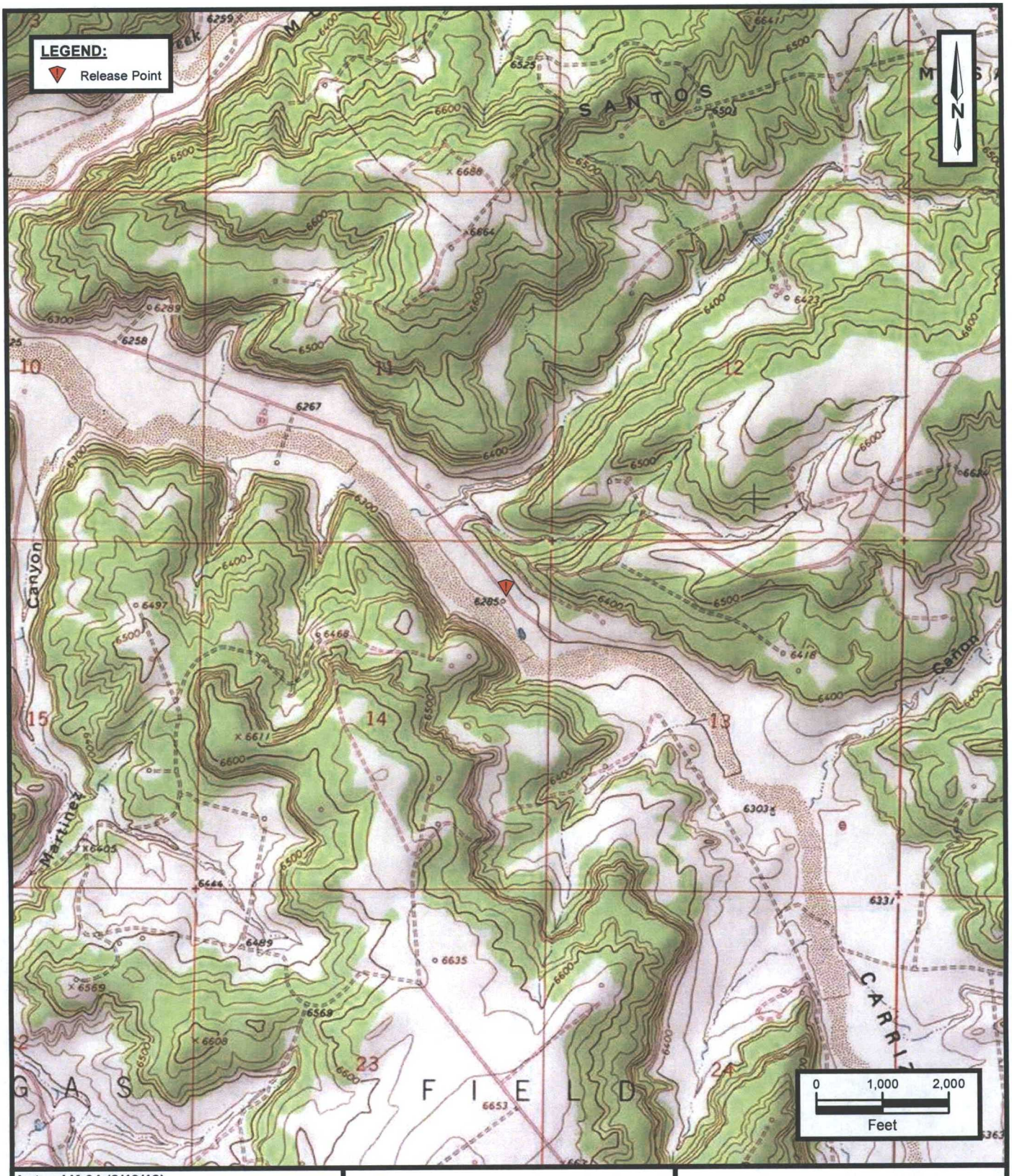
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work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

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

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

APPENDIX A

Figures



Lateral K-61 (8/10/18)
NE 1/4, S14 T27N R6W
Rio Arriba County, New Mexico
36.579598 N, 107.429920 W

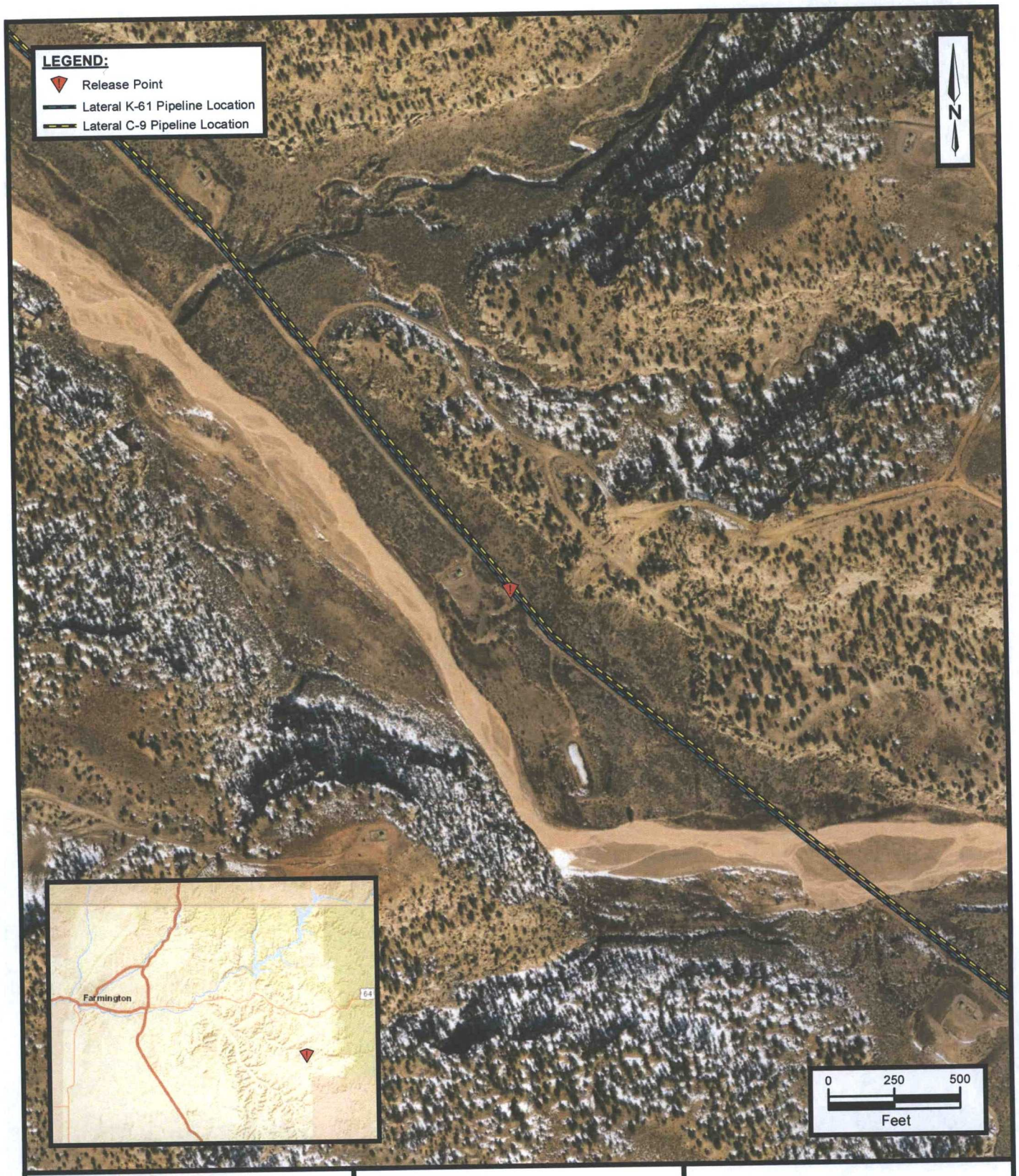
Project No. 725040112506

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

Q:\Projects\725040112506\Figure 1.mxd Modified 10/24/2018 by jsimpson NAD 1983 2011 StatePlane New Mexico Central FIPS 3002 Ft US Coordinate System



Lateral K-61 (8/10/18)
NE 1/4, S14 T27N R6W
Rio Arriba County, New Mexico
36.579598 N, 107.429920 W

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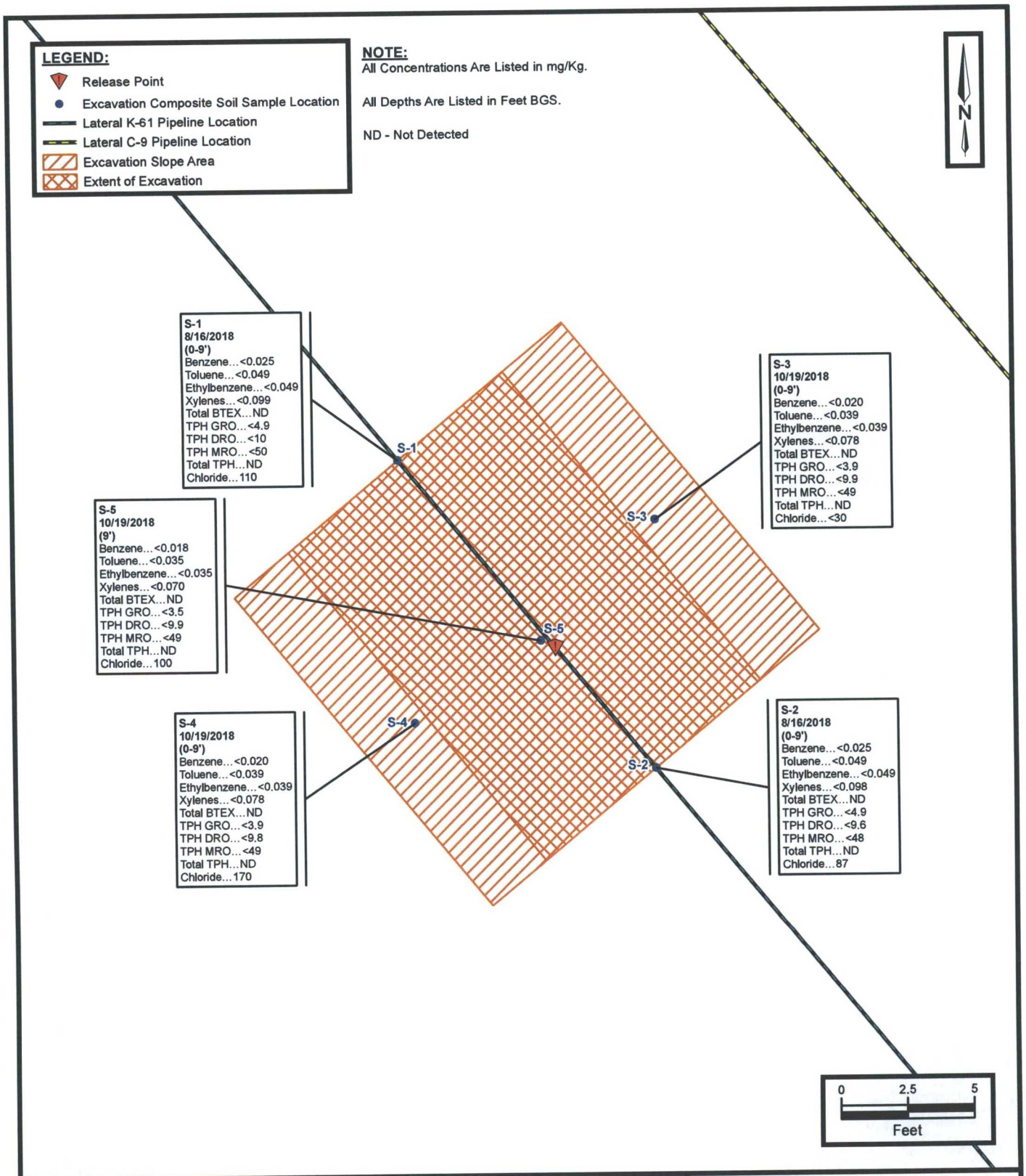
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Q:\Projects\725040112506\Figure 2.mxd Modified 10/25/2018 by jsimpson NAD 1983 2011 StatePlane New Mexico Central FIPS 3002 Ft US Coordinate System



Lateral K-61 (8/10/18)
NE 1/4, S14 T27N R6W
Rio Arriba County, New Mexico
36.579598 N, 107.429920 W

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Aztec, New Mexico 87410
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A Subsidiary of Apex Companies, LLC

FIGURE 3

Site Map with Soil Analytical Results

Q:\Projects\725040112506\Figure 3.mxd Modified 10/25/2018 by jsimpson NAD 1983 2011 StatePlane New Mexico Central FIPS 3002 Ft US Coordinate System

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

97057-0955

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:
3. Lateral K-61 Pipeline

Invoice Information: PM: Dwayne Dixon
Non AFE: N37762
Pay Key: CM22355

4. Location of Material (Street Address, City, State or ULSTR):
UL A Section 14 T27N R6W; 36.579598, -107.429920

October 2018

4. Source and Description of Waste:
Source: Overtopping of a storage tank.
Description: Hydrocarbon/Condensate impacted soil associated with the remediation of a natural gas pipeline leak.
Estimated Volume 50 (yd³) bbls Known Volume (to be entered by the operator at the end of the haul) 56 (yd³) 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 10-17-18, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
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.

5. Transporter: West States Energy Contractors or subcontractors Sweezy, OFT

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:

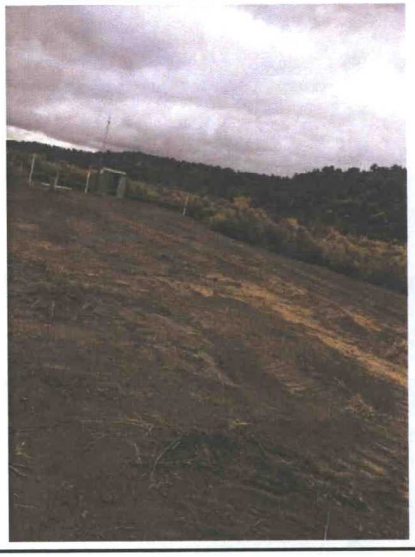
☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 10/19/18
SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

APPENDIX C

Photographic Documentation

Photograph 1 View of the in-process excavation activities.	
Photograph 2 View of the in-process excavation activities, facing north.	
Photograph 3 View of the in-process excavation activities, facing northeast.	

Photograph 4 View of the final excavation.	
Photograph 5 View of the final excavation.	
Photograph 6 View of the final excavation after initial restoration.	

APPENDIX D

Table

TABLE 1
Lateral K-61
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	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)	Total Combined TPH (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Closure Criteria				10	NE	NE	NE	50				100	600
Composite Soil Sample Collected from Stockpiled Soils													
SP-1	10.19.18	C	Stockpile	<0.020	<0.040	<0.040	<0.080	ND	<4.0	<9.9	<50	ND	160
Excavation Composite Soil Samples													
S-1	08.16.18	C	0 to 9	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<10	<50	ND	110
S-2	08.16.18	C	0 to 9	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.6	<48	ND	87
S-3	10.19.18	C	0 to 9	<0.020	<0.039	<0.039	<0.078	ND	<3.9	<9.9	<49	ND	<30
S-4	10.19.18	C	0 to 9	<0.020	<0.039	<0.039	<0.078	ND	<3.9	<9.8	<49	ND	170
S-5	10.19.18	C	9	<0.018	<0.035	<0.035	<0.070	ND	<3.5	<9.9	<49	ND	100

ND = Not Detected above the Practical Quantitation Limits
NE = Not established
mg/kg = milligram per kilogram
BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
MRO = Motor Oil/Lube Oil Range Organics
TPH = Total Petroleum Hydrocarbon

APEX

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

August 31, 2018

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

RE: Lateral K 61 OrderNo.: 1808B69

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/18/2018 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K 61
Lab ID: 1808B69-001 **Matrix:** SOIL

Client Sample ID: S-1
Collection Date: 8/16/2018 1:00:00 PM
Received Date: 8/18/2018 11:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	110	30		mg/Kg	20	8/30/2018 2:29:39 AM	40062
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/25/2018 3:16:02 PM	39939
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/25/2018 3:16:02 PM	39939
Surr: DNOP	119	50.6-138		%Rec	1	8/25/2018 3:16:02 PM	39939
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2018 3:50:21 PM	39915
Surr: BFB	90.4	15-316		%Rec	1	8/22/2018 3:50:21 PM	39915
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	8/22/2018 3:50:21 PM	39915
Toluene	ND	0.049		mg/Kg	1	8/22/2018 3:50:21 PM	39915
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2018 3:50:21 PM	39915
Xylenes, Total	ND	0.099		mg/Kg	1	8/22/2018 3:50:21 PM	39915
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/22/2018 3:50:21 PM	39915

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
PQL	Practical Quanitative Limit	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 K 61
Lab ID: 1808B69-002 **Matrix:** SOIL

Client Sample ID: S-2
Collection Date: 8/16/2018 1:10:00 PM
Received Date: 8/18/2018 11:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	87	30		mg/Kg	20	8/30/2018 3:06:52 AM	40062
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/25/2018 3:38:14 PM	39939
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/25/2018 3:38:14 PM	39939
Surr: DNOP	119	50.6-138		%Rec	1	8/25/2018 3:38:14 PM	39939
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2018 4:13:55 PM	39915
Surr: BFB	90.6	15-316		%Rec	1	8/22/2018 4:13:55 PM	39915
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	8/22/2018 4:13:55 PM	39915
Toluene	ND	0.049		mg/Kg	1	8/22/2018 4:13:55 PM	39915
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2018 4:13:55 PM	39915
Xylenes, Total	ND	0.098		mg/Kg	1	8/22/2018 4:13:55 PM	39915
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	8/22/2018 4:13:55 PM	39915

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
PQL	Practical Quanitative Limit	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#: **1808B69**

31-Aug-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID	**MB-40062**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**40062**	RunNo:	**53808**					
Prep Date:	**8/29/2018**	Analysis Date:	**8/30/2018**	SeqNo:	**1775700**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40062**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**40062**	RunNo:	**53808**					
Prep Date:	**8/29/2018**	Analysis Date:	**8/30/2018**	SeqNo:	**1775701**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.1	90	110			

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
PQL	Practical Quanitative Limit	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#: **1808B69**

31-Aug-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID **LCS-39939**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **39939**	RunNo: **53657**
Prep Date: **8/22/2018**	Analysis Date: **8/23/2018**	SeqNo: **1770197** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	91.0	70	130			
Surr: DNOP	4.9		5.000		98.5	50.6	138			

Sample ID **MB-39939**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **39939**	RunNo: **53657**
Prep Date: **8/22/2018**	Analysis Date: **8/23/2018**	SeqNo: **1770198** 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	9.8		10.00		97.5	50.6	138			

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
PQL	Practical Quanitative Limit	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

WO#: **1808B69**

Hall Environmental Analysis Laboratory, Inc.

31-Aug-18

Client: APEX TITAN
Project: Lateral K 61

Sample ID **MB-39915**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **39915**	RunNo: **53636**
Prep Date: **8/21/2018**	Analysis Date: **8/22/2018**	SeqNo: **1768784** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.8	15	316			

Sample ID **LCS-39915**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **39915**	RunNo: **53636**
Prep Date: **8/21/2018**	Analysis Date: **8/22/2018**	SeqNo: **1768785** 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	90.4	75.9	131			
Surr: BFB	1000		1000		102	15	316			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808B69**

31-Aug-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID **MB-39915**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **39915**	RunNo: **53636**
Prep Date: **8/21/2018**	Analysis Date: **8/22/2018**	SeqNo: **1768802** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID **LCS-39915**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **39915**	RunNo: **53636**
Prep Date: **8/21/2018**	Analysis Date: **8/22/2018**	SeqNo: **1768803** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.0	77.3	128			
Toluene	1.0	0.050	1.000	0	103	79.2	125			
Ethylbenzene	1.0	0.050	1.000	0	103	80.7	127			
Xylenes, Total	3.1	0.10	3.000	0	105	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	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
PQL	Practical Quanitative Limit	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: 1808B69 | RcptNo: 1

Received By: Anne Thorne 8/18/2018 11:15:00 AM

Completed By: Ashley Gallegos 8/20/2018 10:05:32 AM

Reviewed By: ZD 8/21/18

labeled by: ENM 8/21/18

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

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

ENM 8/21/18

Special Handling (if applicable)

15. 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:			

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location
606 S Rio Grande Suite A
Aztec, NM 87410

Project Manager K. Summers

Laboratory: Hall Environmental Analysis Laboratory
Address: 4901 Hawkins NE
Albuquerque, NM 87109
Contact: A. Freeman
Phone: 505-345-3975
PO/SO #: See notes

Sampler's Name: Ranee Deechilly
Sampler's Signature:

Proj. No.: 725040112506
Project Name: Lateral K-61

ANALYSIS REQUESTED: BTEX 8021 / TPH 6.20/D20/MRO 8015 / Chlorides

Lab use only
Due Date:
Temp. of coolers when received (C°): 2.1-IR-1.0 = 1.1
Cooler: (1) 2 3 4 5
Page 1 of 1

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	Lab Sample ID (Lab Use Only)
S	8/16/18	1300	X		S-1						1		1808B109-001
S	8/16/18	1310	X		S-2						1		-002

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

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
	8/17/18	1509		8/17/18	1509
	8/17/18	1839		08/17/18	1115

NOTES: PM - Tom Long
PayKey - CM 22355
Non AFE - N 37762

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

October 23, 2018

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

RE: Lateral K 61 OrderNo.: 1810B17

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 10/20/2018 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1810B17**
Date Reported: **10/23/2018**

CLIENT: APEX TITAN
Project: Lateral K 61
Lab ID: 1810B17-001 **Matrix:**

Client Sample ID: S-3
Collection Date: 10/19/2018 11:30:00 AM
Received Date: 10/20/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/22/2018 2:21:05 PM	41115
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/22/2018 12:41:40 PM	41111
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/22/2018 12:41:40 PM	41111
Surr: DNOP	95.3	50.6-138		%Rec	1	10/22/2018 12:41:40 PM	41111
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/22/2018 12:25:09 PM	41104
Surr: BFB	89.3	15-316		%Rec	1	10/22/2018 12:25:09 PM	41104
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	10/22/2018 12:25:09 PM	41104
Toluene	ND	0.039		mg/Kg	1	10/22/2018 12:25:09 PM	41104
Ethylbenzene	ND	0.039		mg/Kg	1	10/22/2018 12:25:09 PM	41104
Xylenes, Total	ND	0.078		mg/Kg	1	10/22/2018 12:25:09 PM	41104
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	10/22/2018 12:25:09 PM	41104

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
PQL	Practical Quanitative Limit	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 K 61
Lab ID: 1810B17-002 **Matrix:**

Client Sample ID: S-4
Collection Date: 10/19/2018 11:35:00 AM
Received Date: 10/20/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	170	30		mg/Kg	20	10/22/2018 2:33:30 PM	41115
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/22/2018 1:03:59 PM	41111
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/22/2018 1:03:59 PM	41111
Surr: DNOP	102	50.6-138		%Rec	1	10/22/2018 1:03:59 PM	41111
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/22/2018 11:38:17 AM	41104
Surr: BFB	85.8	15-316		%Rec	1	10/22/2018 11:38:17 AM	41104
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	10/22/2018 11:38:17 AM	41104
Toluene	ND	0.039		mg/Kg	1	10/22/2018 11:38:17 AM	41104
Ethylbenzene	ND	0.039		mg/Kg	1	10/22/2018 11:38:17 AM	41104
Xylenes, Total	ND	0.078		mg/Kg	1	10/22/2018 11:38:17 AM	41104
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	10/22/2018 11:38:17 AM	41104

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
PQL	Practical Quanitative Limit	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 K 61
Lab ID: 1810B17-003 **Matrix:**

Client Sample ID: S-5
Collection Date: 10/19/2018 11:40:00 AM
Received Date: 10/20/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	100	30		mg/Kg	20	10/22/2018 2:45:55 PM	41115
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/22/2018 1:26:17 PM	41111
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/22/2018 1:26:17 PM	41111
Surr: DNOP	102	50.6-138		%Rec	1	10/22/2018 1:26:17 PM	41111
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	10/22/2018 12:01:39 PM	41104
Surr: BFB	89.2	15-316		%Rec	1	10/22/2018 12:01:39 PM	41104
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	10/22/2018 12:01:39 PM	41104
Toluene	ND	0.035		mg/Kg	1	10/22/2018 12:01:39 PM	41104
Ethylbenzene	ND	0.035		mg/Kg	1	10/22/2018 12:01:39 PM	41104
Xylenes, Total	ND	0.070		mg/Kg	1	10/22/2018 12:01:39 PM	41104
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	10/22/2018 12:01:39 PM	41104

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
PQL	Practical Quanitative Limit	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#: **1810B17**

23-Oct-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID	**MB-41115**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**41115**		RunNo:	**55062**				
Prep Date:	**10/22/2018**	Analysis Date:	**10/22/2018**		SeqNo:	**1831098**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-41115**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**41115**		RunNo:	**55062**				
Prep Date:	**10/22/2018**	Analysis Date:	**10/22/2018**		SeqNo:	**1831099**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

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
PQL	Practical Quanitative Limit	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#: **1810B17**

23-Oct-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID **LCS-41111**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **41111**	RunNo: **55065**
Prep Date: **10/22/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830642** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.5	70	130			
Surr: DNOP	4.6		5.000		91.0	50.6	138			

Sample ID **MB-41111**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **41111**	RunNo: **55065**
Prep Date: **10/22/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830643** 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		96.9	50.6	138			

Sample ID **MB-41093**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **41093**	RunNo: **55065**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830650** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		104	50.6	138			

Sample ID **1810B17-003AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-5**	Batch ID: **41111**	RunNo: **55065**
Prep Date: **10/22/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.9	49.46	0	86.1	53.5	126			
Surr: DNOP	4.8		4.946		96.9	50.6	138			

Sample ID **1810B17-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-5**	Batch ID: **41111**	RunNo: **55065**
Prep Date: **10/22/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830658** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.7	48.54	0	88.6	53.5	126	0.936	21.7	
Surr: DNOP	4.9		4.854		102	50.6	138	0	0	

Sample ID **LCS-41093**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **41093**	RunNo: **55065**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1831222** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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
PQL	Practical Quanitative Limit	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#: **1810B17**

23-Oct-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID	**LCS-41093**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID:	**41093**		RunNo:	**55065**					
Prep Date:	**10/19/2018**	Analysis Date:	**10/22/2018**		SeqNo:	**1831222**	Units:	**%Rec**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.7		5.000		94.0	50.6	138			

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
PQL	Practical Quanitative Limit	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#: **1810B17**

23-Oct-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID **MB-41104**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830809** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.6	15	316			

Sample ID **LCS-41104**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830810** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	75.9	131			
Surr: BFB	1000		1000		104	15	316			

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
PQL	Practical Quanitative Limit	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#: **1810B17**

23-Oct-18

Client: APEX TITAN
Project: Lateral K 61

Sample ID **MB-41104**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830829** 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	0.92		1.000		91.6	80	120			

Sample ID **LCS-41104**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830830** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.1	77.3	128			
Toluene	0.93	0.050	1.000	0	92.9	79.2	125			
Ethylbenzene	0.93	0.050	1.000	0	93.0	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	93.6	81.6	129			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	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
PQL	Practical Quanitative Limit	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: **1810B17** RcptNo: **1**

Received By: **Jazzmine Burkhead** **10/20/2018 10:00:00 AM**

Completed By: **Isaiah Ortiz** **10/22/2018 9:00:44 AM**

Reviewed By: JAB 10/22/18

CB ENM 10/22/18

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐ # of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐ Adjusted?
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐ Checked by:

ENM 10/22/18

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.6	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location
606 S Rio Grande, Suite A
Aztec, NM 87410

Project Manager K. Summers

Laboratory: Hall Environmental Analysis Laboratory
Address: 4901 Hawkins NE
Albuquerque, NM 87109
Contact: A. Freeman
Phone: 505-345-3975
PO/SO #: See notes

Sampler's Name: Ranee Deechilly
Sampler's Signature:

Proj. No.: 725040112506
Project Name: Lateral K-61
No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021; TPH 8015B/DRO/MRO 8015; Chlorides

Lab use only
Due Date:
Temp. of coolers when received (C°): 5.6
1 2 3 4 5
Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	10/19/18	1130	X		S-3						1		1810B17 -001
S	10/19/18	1135	X		S-4						1		-002
S	10/19/18	1140	X		S-5						1		-003

NT5

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/19/18	1432		10/19/18	1422
	10/19/18	15:17		10/19/18	1517
	10/19/18	1804		10-22-18	1000

NOTES:
PM - Tom Long
Pay key - CM 22355
Non AFE - N37762
SAME DAY

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solic; 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

October 23, 2018

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

RE: Lateral K 61 OrderNo.: 1810B16

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/20/2018 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1810B16**
Date Reported: **10/23/2018**

CLIENT: APEX TITAN
Project: Lateral K 61
Lab ID: 1810B16-001
Matrix: MEOH (SOIL)
Client Sample ID: SP-1
Collection Date: 10/19/2018 11:45:00 AM
Received Date: 10/20/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: **MRA**
Chloride	160	30		mg/Kg	20	10/22/2018 2:08:40 PM	41115
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/22/2018 12:19:34 PM	41111
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/22/2018 12:19:34 PM	41111
Surr: DNOP	96.2	50.6-138		%Rec	1	10/22/2018 12:19:34 PM	41111
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/22/2018 10:51:06 AM	41104
Surr: BFB	94.1	15-316		%Rec	1	10/22/2018 10:51:06 AM	41104
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Benzene	ND	0.020		mg/Kg	1	10/22/2018 10:51:06 AM	41104
Toluene	ND	0.040		mg/Kg	1	10/22/2018 10:51:06 AM	41104
Ethylbenzene	ND	0.040		mg/Kg	1	10/22/2018 10:51:06 AM	41104
Xylenes, Total	ND	0.080		mg/Kg	1	10/22/2018 10:51:06 AM	41104
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	10/22/2018 10:51:06 AM	41104

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
PQL	Practical Quanitative Limit	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#: **1810B16**

23-Oct-18

Client: APEX TITAN
Project: Lateral K 61

Sample ID	**MB-41115**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**41115**		RunNo:	**55062**				
Prep Date:	**10/22/2018**	Analysis Date:	**10/22/2018**		SeqNo:	**1831098**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-41115**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**41115**		RunNo:	**55062**				
Prep Date:	**10/22/2018**	Analysis Date:	**10/22/2018**		SeqNo:	**1831099**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

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
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810B16**

23-Oct-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID **LCS-41111**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **41111**	RunNo: **55065**
Prep Date: **10/22/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830642** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.5	70	130			
Surr: DNOP	4.6		5.000		91.0	50.6	138			

Sample ID **MB-41111**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **41111**	RunNo: **55065**
Prep Date: **10/22/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830643** 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		96.9	50.6	138			

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
PQL	Practical Quanitative Limit	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#: **1810B16**

23-Oct-18

Client: APEX TITAN

Project: Lateral K 61

Sample ID **MB-41104**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830809** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.6	15	316			

Sample ID **LCS-41104**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830810** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	75.9	131			
Surr: BFB	1000		1000		104	15	316			

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
PQL	Practical Quanitative Limit	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#: **1810B16**

23-Oct-18

Client: APEX TITAN
Project: Lateral K 61

Sample ID **MB-41104**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830829** 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	0.92		1.000		91.6	80	120			

Sample ID **LCS-41104**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **41104**	RunNo: **55058**
Prep Date: **10/19/2018**	Analysis Date: **10/22/2018**	SeqNo: **1830830** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.1	77.3	128			
Toluene	0.93	0.050	1.000	0	92.9	79.2	125			
Ethylbenzene	0.93	0.050	1.000	0	93.0	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	93.6	81.6	129			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	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
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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: 1810B16 RcptNo: 1

Received By: Jazzmine Burkhead 10/20/2018 10:00:00 AM

Completed By: Isaiah Ortiz 10/22/2018 8:38:19 AM I Ortiz

Reviewed By: JAB 10/22/18

LB: ENM 10/22/18

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

ENM 10/22/18

Special Handling (if applicable)

15. 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: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.6	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: 606 S Rio Grande, Suite A, Aztec, NM 87410

Project Manager: K. Summers

Laboratory: Hall Environmental Analysis Laboratory

Address: 4901 Hawkins NE, Albuquerque, NM 87109

Contact: A. Freeman

Phone: 505-345-3975

PO/SO #: See notes

Sampler's Name: Ranee Deechilly

Sampler's Signature:

Proj. No.: 725040112506

Project Name: Lateral K-61

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021; TPH 6PO/DRO/MRO 8015; Chlorides

Lab use only
Due Date:

Temp. of coolers when received (C°): 5-6

1 2 3 4 5

Page 1 of 1

Matrix	Date	Time	Composite	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	10/19/18	1145	X		SP-1						1		1810B16-001

NFS

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☑ 100% Rush SAME DAY

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/19/18	1422		10/19/18	1422
Relinquished by (Signature)	10/19/18	15:17	Received by: (Signature)	10/19/18	15:17
Relinquished by (Signature)	10/19/18	1804	Received by: (Signature)	10/20/18	1000
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:
PM - Tom Long
Pay Key - CM 22355
NM AFE - N37762

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	3RP- 1012
Facility ID	
Application ID	

NMOCD
JAN 18 2019
DISTRICT III

Release Notification

Responsible Party

Responsible Party: **Enterprise Field Services, LLC**	OGRID: **151618**
Contact Name: **Thomas Long**	Contact Telephone: **505-599-2286**
Contact email:**tjlong@eprod.com**	Incident # *(assigned by OCD)*: **N/A** NCS 1902429266
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.568668** Longitude **-107.464885** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Martinez Compressor Station**	Site Type **Natural Gas Compressor Station**
Date Release Discovered: **1/03/2019**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
P	**16**	**27N**	**6W**	**Rio Arriba**

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls):	Volume Recovered (bbls):
☒ Natural Gas	Volume Released (Mcf): **2,840 MCF**	Volume Recovered (Mcf): **None**
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release Cause of Release: On January 3, 2019, Enterprise received a call from a third party that observed gas emitting from Martinez Compressor Station. A compression technician was dispatch and discovered a discharge relief valve blowing gas. The compressor station was immediately shut down and the discharge relief valve repaired. The surrounding areas around the compressor station were monitored for hazardous atmospheric conditions. No hazardous atmospheric conditions were observed. A calculated amount 2,840 MCF was released to atmosphere. No fluids were released. No remediation activities were required.

(5)

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Rodney M. Sartor Title: Sr. Director, Environmental

Signature: [signature] Date: 1/18/19

email: environmental@eprod.com Telephone: (713) 381-6595

OCD Only

Received by: 1/18/19 OCD Date:

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: [signature] Date: 1/24/19

Printed Name: Cory Title: Environmental Spec.

Enterprise Field Services, LLC
Martinez Compressor Station
UL P Section 16 T27N R6W; 36.568668, -107.464885
Rio Arriba County, New Mexico

On January 3, 2019, Enterprise received a call from a third party that observed gas emitting from Martinez Compressor Station. A compression technician was dispatch and discovered a discharge relief valve blowing gas. The compressor station was immediately shut down and the discharge relief valve repaired. The surrounding areas around the compressor station were monitored for hazardous atmospheric conditions. No hazardous atmospheric conditions were observed. A calculated amount 2,840 MCF was released to atmosphere. No fluids were released. No remediation activities were required. No soil samples were collected for laboratory analysis.

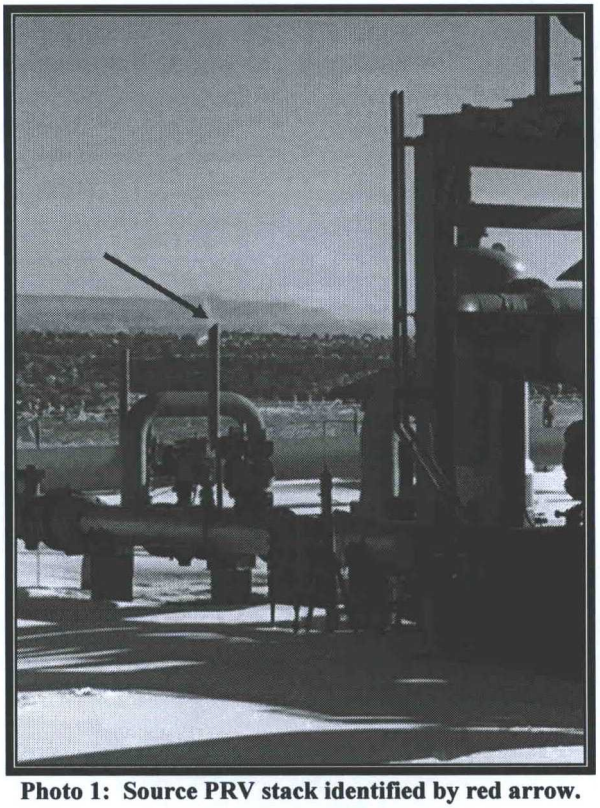

Photo 1: Source PRV stack identified by red arrow.

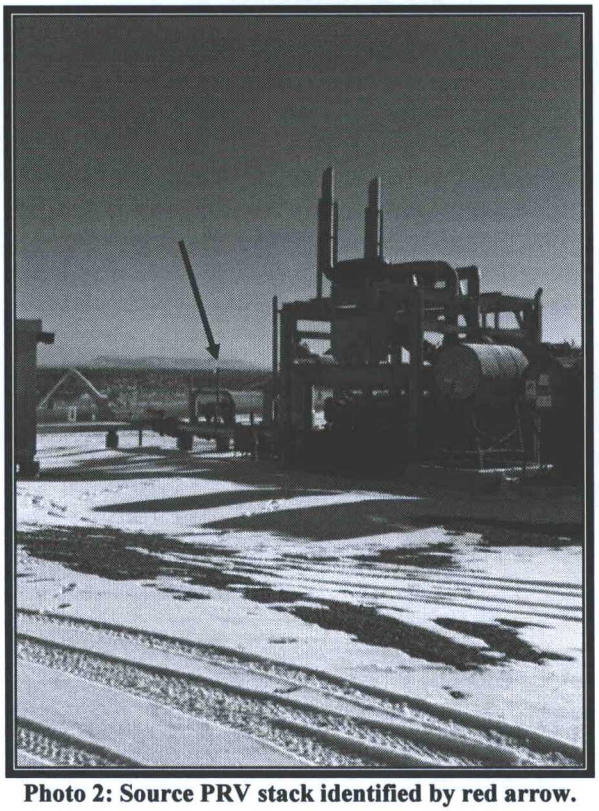

Photo 2: Source PRV stack identified by red arrow.


Martinez Compressor Station
Write a description for your map.
Legend
Martinez Compressor Station PRV Stack
Martinez Compressor Station PRV Stack
Google Earth
©2016 Google
N
100 ft

District I
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State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

NMOCD
MAR 04 2019
DISTRICT III

Release Notification

Responsible Party

Responsible Party: **Enterprise Field Services, LLC**	OGRID: **151618**
Contact Name: **Thomas Long**	Contact Telephone: **505-599-2286**
Contact email:**tjlong@eprod.com**	Incident # *(assigned by OCD)* **N/A**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.385225** Longitude **-107.320180** *NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Lateral 2C-29 Pipeline**	Site Type **Natural Gas Pipeline**
Date Release Discovered: **2/14/2019**	Serial # *(if applicable)* **N/A**

Unit Letter	Section	Township	Range	County
L	**24**	**25N**	**5W**	**Rio Arriba**

Surface Owner: ☐ State ☐ Federal ☒ Tribal ☐ Private (*Name:* Jicarilla Apache Tribe)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls): **Estimated 3-5 BBLs**	Volume Recovered (bbls):
☒ Natural Gas	Volume Released (Mcf): **Unknown**	Volume Recovered (Mcf):
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: On February 14, 2019, an Enterprise technician discovered a release of natural gas and natural gas liquids on the Lateral 2C-29 pipeline. An area of approximately 10 feet long by 10 feet wide was impacted by the released fluids. Also, fluids ran down a bar ditch along the adjacent dirt road for about 120 feet. The pipeline was blown down, depressurized, locked out and tagged out. Enterprise recovered the released fluids as much as practicable and barricaded off the affected areas. Repairs and remediation are in the scheduling process. A third party closure report will be submitted with the "Final C-141."

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Jon E. Fields Title: Director, Field Environmental

Signature: Jon E. Fields Date: 2-27-19

email: jefields@eprod.com Telephone: 713-381-6684

OCD Only

Received by: Vanessa Fields Date: 3/1/2019