

**3R-1011**

**Release Report/ General  
Correspondence**

**Enterprise SJ**

**Date: Oct-Dec 2016**

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

State of New Mexico  
Energy Minerals and Natural  
Resources

AUG 15 2016 Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: <b>Morris #5</b>	Facility Type: <b>Natural Gas Gathering Pipeline</b>

Surface Owner: <b>BLM</b>	Mineral Owner: <b>BLM</b>	Serial Number: <b>NM 0023881</b>
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**LOCATION OF RELEASE**

Unit Letter <b>F</b>	Section <b>29</b>	Township <b>29N</b>	Range <b>11W</b>	Feet from the <b>2048</b>	<del>North</del> South Line	Feet from the <b>1697</b>	East <del>West</del> Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	------------------------------	--------------------------------	------------------------------	------------------------------	---------------------------

Latitude 36.7848 Longitude -107.4422

**NATURE OF RELEASE**

Type of Release: Natural Gas and Condensate	Volume of Release: <b>125.89 MCF Gas; 5-10 Barrels of condensate</b>	Volume Recovered: <b>None</b>
Source of Release: Internal Corrosion	Date and Hour of Occurrence: <b>April 20, 2016 @ 4:00 p.m.</b>	Date and Hour of Discovery: <b>April 20, 2016 @ 5:30 p.m.</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields – NMOCD; Katherina Diemer - BLM	
By Whom? Thomas Long	Date and Time: May 31, 2016 @ 2:46 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\*  
Describe Cause of Problem and Remedial Action: On April 20, 2016, Enterprise technicians discovered a gas leak on the Morris #5 pipeline. The pipeline was isolated, blown down, locked out and tagged out. On May 31, 2016, Enterprise determined the release reportable per NMOCD regulation due the volume of subsurface impacted soil. Repairs and remediation were completed on June 2, 2016.

Describe Area Affected and Cleanup Action: The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 50 feet long by 15 feet wide ranging from 6 to 15 feet deep. Approximately 180 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party corrective action report is included with this "Final" C-141.

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

Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: <u>11-4-16</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>8/9/2016</u>	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

#NCS 16 30955 492

40



OIL CONS. DIV DIST. 3

AUG 15 2016

## CORRECTIVE ACTION REPORT

Property:

**Morris #5 Pipeline Release  
NW 1/4, S29 T30N R11W  
San Juan County, New Mexico**

July 26, 2016

Apex Project No. 725040112160

Prepared for:

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

Prepared by:

  
\_\_\_\_\_  
Raneer Deechilly  
Project Scientist

  
\_\_\_\_\_  
Kyle Summers, CPG  
Branch Manager/Senior Project  
Manager

## TABLE OF CONTENTS

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

### LIST OF APPENDICES

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

## CORRECTIVE ACTION REPORT

**Morris #5 Pipeline Release**  
NW 1/4, S29 T30N R11W  
San Juan County, New Mexico

**Apex Project No. 725040112160**

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The Morris #5 pipeline release Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 29, Township 30 North, Range 11 West in San Juan County, New Mexico (36.7848N, 108.0173W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from east to west.

On April 20, 2016, Enterprise personnel discovered evidence of a surface release on the Morris #5 pipeline. The surface expression of the release was characterized by a small blow hole at the ground surface. Beginning on May 31, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The pipeline release, which resulted from corrosion of the pipe, was repaired by replacing a 40 foot section of pipe.

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

#### 1.2 Project Objective

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

### 2.0 SITE RANKING

In accordance with the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized the general site characteristics obtained during the completion of corrective action activities to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:



Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	0
	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	
<b>Total Ranking Score</b>			<b>10</b>

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 10. This ranking is based on the following:

- Based on information from the Office of the State Engineer (OSE) website, the nearest water wells are located over 3,000 feet northwest of the Site and at lower elevations. The two closest wells have depths to water of 35 feet below grade surface (bgs) and 280 feet bgs. Based on the proximity to the Site and the difference in elevation, the depth to groundwater at the Site is anticipated to be greater than 100 feet bgs, resulting in a ranking of "0" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking of "0".
- The release point is located approximately 650 feet east of Blancett Arroyo, which is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking of "10".

### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On April 20, 2016, Enterprise personnel discovered evidence of a surface release on the Morris #5 pipeline. The surface expression of the release was characterized by a small blow hole at the ground surface. Beginning on May 31, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The pipeline release, which resulted from corrosion, was repaired by replacing a 40 foot section of pipe. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Chad D'Aponti and Kyle Summers, Apex environmental professionals, provided environmental support.

Subsequent to the initial excavation to expose the pipeline, two (2) composite stockpile soil samples (SP-1 and SP-2) were collected for laboratory analysis to determine the potential to reuse a portion of the soils as backfill material. Excavation activities were completed on June 2, 2016. Eight (8) composite soil samples were collected from the sidewalls and base of the final excavation for laboratory analysis.

The final excavation measured approximately 50 feet long by 15 feet wide. Due to the sloping terrain, the apparent total depth ranged from approximately six (6) feet bgs to 13 feet bgs, depending on which wall of the excavation was referenced.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand and weathered sandy shale with occasional coal.

A total of approximately 180 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. (IEI) landfarm for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and laboratory-confirmed spoils, and then contoured to surrounding grade.

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

### **3.2 Soil Sampling Program**

Apex screened head-space samples of the impacted soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of eight (8) composite soil samples (S-1 through S-8) from the sidewalls and base of the excavation and two (2) composite stockpile soil samples for laboratory analysis.

Figure 3 depicts the approximate location of the excavated area and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

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

### **3.3 Laboratory Analytical Methods**

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

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

## **4.0 DATA EVALUATION**

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

#### 4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final soil samples (S-1 through S-8) collected from the excavated area and the stockpile soil samples (SP-1 and SP-2) to the OCD RALs for sites having a total ranking score of "10".

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused spoils exhibited benzene concentrations ranging from below the PQLs to 0.10 microgram per kilogram (mg/kg) (SP-1), 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 spoils indicate total BTEX concentrations ranging from below the PQLs to 0.34 mg/kg (SP-1), which are below the OCD RAL of 50 mg/kg.
- The laboratory analyses of confirmation samples collected from soils remaining in place and the reused spoils indicate combined TPH GRO/DRO concentrations ranging from below PQLs to 14 mg/kg (SP-2), which are below the OCD RAL of 1,000 mg/kg for a Site ranking of "10".

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

#### 5.0 FINDINGS AND RECOMMENDATIONS

The Morris #5 pipeline release Site is located within the Enterprise pipeline ROW in the NW ¼ of Section 29, Township 30 North, Range 11 West in San Juan County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from east to west.

On April 20, 2016, Enterprise personnel discovered evidence of a surface release on the Morris #5 pipeline. The surface expression of the release was characterized by a small blow hole at the ground surface. Beginning on May 31, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The pipeline release, which resulted from corrosion, was repaired by replacing a 40 foot section of pipe.

- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD RALs using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.
- The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand and weathered sandy shale with occasional coal.
- The final excavation measure approximately 50 feet long by 15 feet wide, with total depths ranging from six (6) feet bgs to 13 feet bgs.
- Prior to backfilling, eight (8) excavation soil samples and two (2) stockpile soil samples were collected for laboratory analyses. Based on analytical results, soils remaining in place and reused spoils do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD RALs for a site ranking of "10".
- A total of approximately 180 cubic yards of hydrocarbon affected soils were transported to the IEI landfarm for disposal/remediation. The excavation was backfilled with clean



imported fill and laboratory-confirmed spoils, and then contoured to the approximate surrounding grade.

**Based on the laboratory analytical results, no additional investigation or corrective action appears warranted at this time.**

## **6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE**

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

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

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

## APPENDIX A

### Figures

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Source: ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

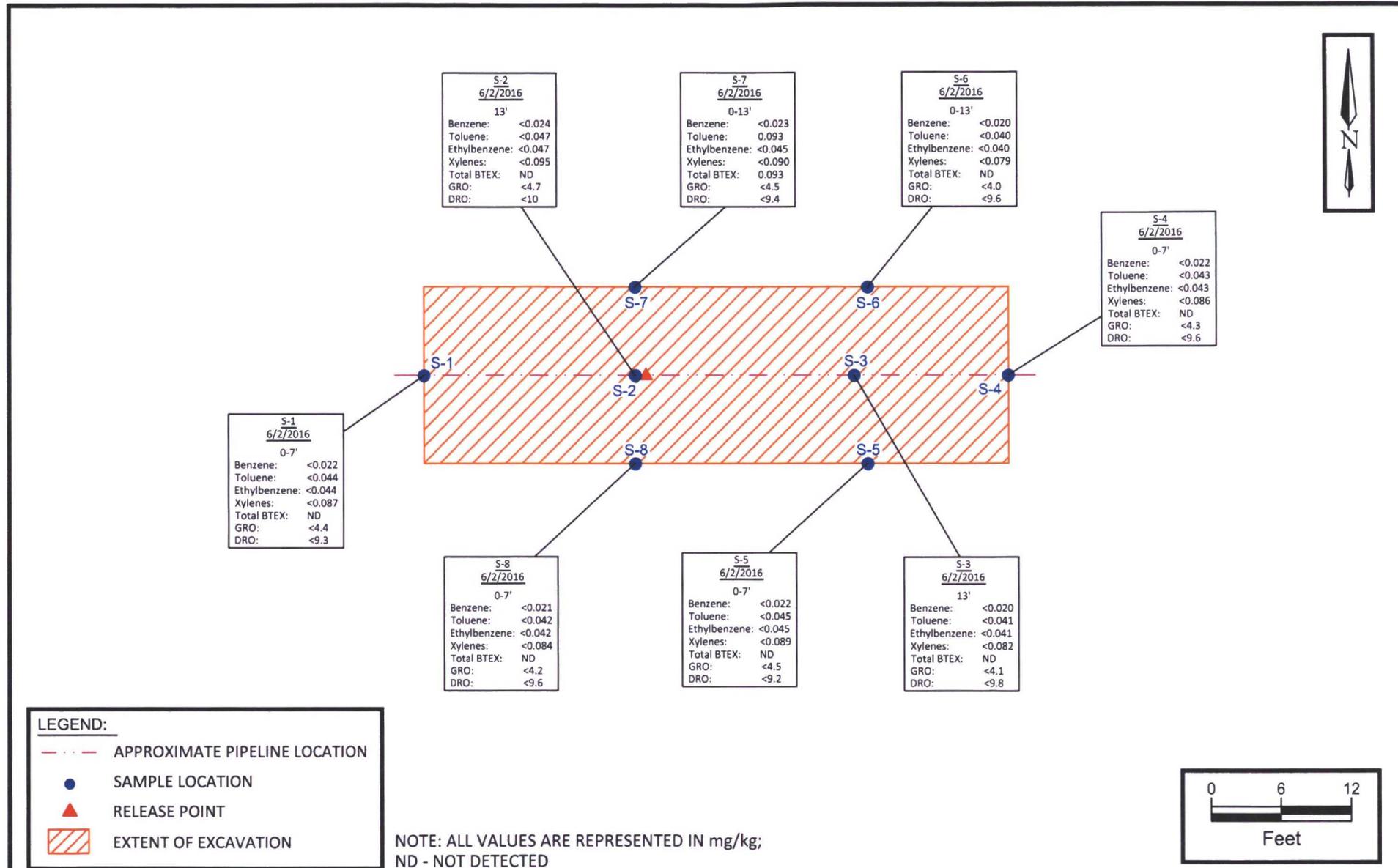
**Morris #5 Pipeline Release**  
 NW1/4 Sec29 T30N R11W  
 San Juan County, New Mexico  
 36.7848N, 108.0173W



**Apex TITAN, Inc.**  
 808 South Rio Grande, Suite A  
 Aztec, NM 87410  
 Phone: (505) 334-8206  
[www.apexcos.com](http://www.apexcos.com)  
 A Subsidiary of Apex Companies, LLC

**FIGURE 2**  
 Site Vicinity Map

Project No. 725040112160



**Morris #5 Pipeline Release**  
 NW1/4 Sec29 T30N R11W  
 San Juan County, New Mexico  
 36.7848N, 108.0173W

Project No. 725040112160



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

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

## APPENDIX B

### Executed C-138 Solid Waste Acceptance Forms

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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-138  
Revised August 1, 2011

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

### REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. <b>Generator Name and Address:</b> Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401
2. <b>Originating Site:</b> Morris #5 Pipeline
3. <b>Location of Material (Street Address, City, State or ULSTR):</b> Unit Letter F Section 29 Township 30 North Range 11 West; 36.7848, -108.1073
4. <b>Source and Description of Waste:</b> Hydrocarbon impacted soil/sludge from excavation activities associated with a natural gas pipeline release. <i>10/2/12 - 18,000 yd<sup>3</sup></i>
5. Estimated Volume <u>50</u> <input checked="" type="radio"/> yd <sup>3</sup> bbls Known Volume (to be entered by the operator at the end of the haul) <u>24</u> yd <sup>3</sup> bbls
<b>5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b> 1. <u>Thomas Long</u> <i>Thomas Long</i> representative or authorized agent for <u>Enterprise Field Services, LLC</u> 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) <input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <del>Operator Use Only Waste Acceptance Frequency</del> <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load <input type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) <input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)
<b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b> 1. <u>Thomas Long</u> <i>Thomas Long</i> <u>6-1-16</u> , representative for <u>Enterprise Field Services, LLC</u> authorize IEL, Inc. to Generator Signature complete the required testing/sign the Generator Waste Testing Certification. 1. <u>M. Mancoske</u> representative for <u>IEL, Inc.</u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
Transporter: <u>West States Energy Contractors</u>

#### OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: JEL Landfarm Industrial Ecosystems, Inc \* Permit #: NM 01-0010B  
Address of Facility: #49 CR 2150 Aztec, New Mexico  
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:  
SIGNATURE:

*M. Mancoske*  
Surface Waste Management Facility Authorized Agent

TITLE: Land Farm Administrator  
PHONE NO: 505-632-1782

DATE: 6/1/16

## APPENDIX C

### Photographic Documentation

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**Photograph 1**

View of the release area and in-process corrective action activities, facing east.

**Photograph 2**

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

**Photograph 3**

View of the initial excavation and temporary repaired pipeline, facing south.



**Photograph 4**

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



## APPENDIX D

### Table

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**TABLE 1**  
**Morris #5 Pipeline Release**  
**SOIL ANALYTICAL SUMMARY**

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	1,000	
<b>Stockpile Soil Samples</b>									
SP-1	5.31.16	Stockpile	0.10	0.13	<0.044	0.11	0.34	<4.4	<9.7
SP-2	5.31.16	Stockpile	0.043	0.090	<0.041	<0.083	0.13	<4.1	14
<b>Excavation Confirmation Samples</b>									
S-1	6.02.16	0 to 7	<0.022	<0.044	<0.044	<0.087	ND	<4.4	<9.3
S-2	6.02.16	13	<0.024	<0.047	<0.047	<0.095	ND	<4.7	<10
S-3	6.02.16	13	<0.020	<0.041	<0.041	<0.082	ND	<4.1	<9.8
S-4	6.02.16	0 to 7	<0.022	<0.043	<0.043	<0.086	ND	<4.3	<9.6
S-5	6.02.16	0 to 7	<0.022	<0.045	<0.045	<0.089	ND	<4.5	<9.2
S-6	6.02.16	0 to 13	<0.020	<0.040	<0.040	<0.079	ND	<4.0	<9.6
S-7	6.02.16	0 to 13	<0.023	0.093	<0.045	<0.090	0.093	<4.5	<9.4
S-8	6.02.16	0 to 7	<0.021	<0.042	<0.042	<0.084	ND	<4.2	<9.6

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

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established

## APPENDIX E

### Laboratory Analytical Reports & Chain of Custody Documentation

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

June 03, 2016

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

RE: Morris #5

OrderNo.: 1606001

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/1/2016 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN  
 Project: Morris #5  
 Lab ID: 1606001-001

Matrix: SOIL

Client Sample ID: SP-1  
 Collection Date: 5/31/2016 3:20:00 PM  
 Received Date: 6/1/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/1/2016 9:19:12 AM	25598
Surr: DNOP	90.8	70-130		%Rec	1	6/1/2016 9:19:12 AM	25598
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	6/1/2016 10:00:49 AM	25568
Surr: BFB	118	80-120		%Rec	1	6/1/2016 10:00:49 AM	25568
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.10	0.022		mg/Kg	1	6/1/2016 10:00:49 AM	25568
Toluene	0.13	0.044		mg/Kg	1	6/1/2016 10:00:49 AM	25568
Ethylbenzene	ND	0.044		mg/Kg	1	6/1/2016 10:00:49 AM	25568
Xylenes, Total	0.11	0.088		mg/Kg	1	6/1/2016 10:00:49 AM	25568
Surr: 4-Bromofluorobenzene	120	80-120		%Rec	1	6/1/2016 10:00:49 AM	25568

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

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

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: SP-2

Project: Morris #5

Collection Date: 5/31/2016 3:22:00 PM

Lab ID: 1606001-002

Matrix: SOIL

Received Date: 6/1/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	14	9.6		mg/Kg	1	6/1/2016 9:40:37 AM	25598
Surr: DNOP	93.9	70-130		%Rec	1	6/1/2016 9:40:37 AM	25598
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	6/1/2016 10:24:13 AM	25568
Surr: BFB	117	80-120		%Rec	1	6/1/2016 10:24:13 AM	25568
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	0.043	0.021		mg/Kg	1	6/1/2016 10:24:13 AM	25568
Toluene	0.090	0.041		mg/Kg	1	6/1/2016 10:24:13 AM	25568
Ethylbenzene	ND	0.041		mg/Kg	1	6/1/2016 10:24:13 AM	25568
Xylenes, Total	ND	0.083		mg/Kg	1	6/1/2016 10:24:13 AM	25568
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	1	6/1/2016 10:24:13 AM	25568

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606001

03-Jun-16

Client: APEX TITAN  
Project: Morris #5

Sample ID	MB-25598	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25598	RunNo:	34589					
Prep Date:	6/1/2016	Analysis Date:	6/1/2016	SeqNo:	1066725	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	ND	10								
Surr: DNOP	7.6		10.00		75.8	70	130			

Sample ID	LCS-25598	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25598	RunNo:	34589					
Prep Date:	6/1/2016	Analysis Date:	6/1/2016	SeqNo:	1066858	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	49	10	50.00	0	98.7	62.6	124			
Surr: DNOP	3.7		5.000		73.2	70	130			

Sample ID	1606001-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SP-1	Batch ID:	25598	RunNo:	34590					
Prep Date:	6/1/2016	Analysis Date:	6/1/2016	SeqNo:	1067174	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.8	48.97	0	85.4	33.9	141			
Surr: DNOP	4.3		4.897		87.5	70	130			

Sample ID	1606001-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SP-1	Batch ID:	25598	RunNo:	34590					
Prep Date:	6/1/2016	Analysis Date:	6/1/2016	SeqNo:	1067175	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	37	9.7	48.26	0	77.2	33.9	141	11.5	20	
Surr: DNOP	4.0		4.826		83.2	70	130	0	0	

Sample ID	LCS-25570	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25570	RunNo:	34590					
Prep Date:	5/31/2016	Analysis Date:	6/1/2016	SeqNo:	1068093	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.6	70	130			

Sample ID	MB-25570	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25570	RunNo:	34590					
Prep Date:	5/31/2016	Analysis Date:	6/1/2016	SeqNo:	1068094	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.3		10.00		83.3	70	130			

**Qualifiers:**

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606001

03-Jun-16

Client: APEX TITAN

Project: Morris #5

Sample ID	MB-25568	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25568	RunNo:	34598					
Prep Date:	5/31/2016	Analysis Date:	6/1/2016	SeqNo:	1067457	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		112	80	120			

Sample ID	LCS-25568	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25568	RunNo:	34598					
Prep Date:	5/31/2016	Analysis Date:	6/1/2016	SeqNo:	1067458	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	91.1	80	120			
Surr: BFB	1200		1000		125	80	120			S

Sample ID	MB-25547	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25547	RunNo:	34598					
Prep Date:	5/27/2016	Analysis Date:	6/1/2016	SeqNo:	1067478	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		118	80	120			

Sample ID	LCS-25547	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25547	RunNo:	34598					
Prep Date:	5/27/2016	Analysis Date:	6/1/2016	SeqNo:	1067479	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1300		1000		127	80	120			S

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606001

03-Jun-16

Client: APEX TITAN

Project: Morris #5

Sample ID	MB-25568	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25568	RunNo:	34598					
Prep Date:	5/31/2016	Analysis Date:	6/1/2016	SeqNo:	1067503	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		116	80	120			

Sample ID	LCS-25568	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25568	RunNo:	34598					
Prep Date:	5/31/2016	Analysis Date:	6/1/2016	SeqNo:	1067504	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	75.3	123			
Toluene	1.0	0.050	1.000	0	101	80	124			
Ethylbenzene	0.99	0.050	1.000	0	98.9	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	99.3	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		124	80	120			S

### Qualifiers:

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

**Sample Log-In Check List**

Client Name: APEX AZTEC

Work Order Number: 1606001

RcptNo: 1

Received by/date: AT 06/14/16

Logged By: Anne Thorne 8/1/2016 7:15:00 AM

*Anne Thorne*

Completed By: Anne Thorne 8/1/2016

*Anne Thorne*

Reviewed By: *AT* 6/1/16

**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? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

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

**Special Handling (if applicable)**

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

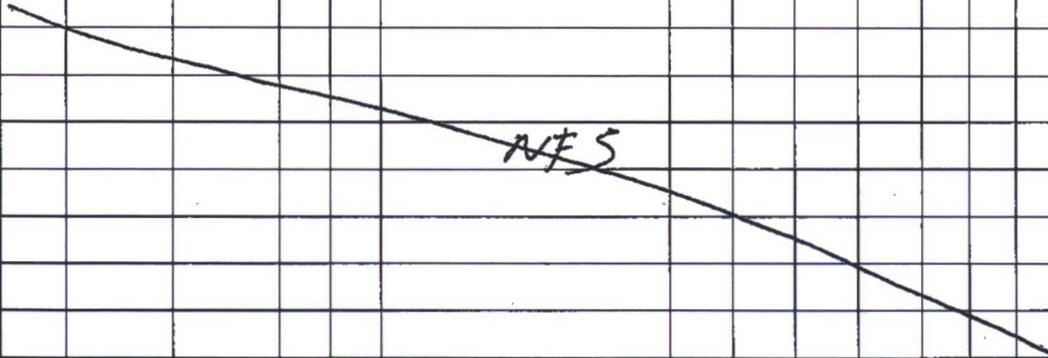
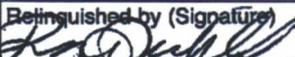
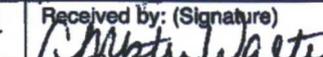
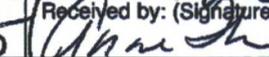
Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

**18. Cooler Information**

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

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall</u> Address: <u>ABQ, NM</u>		ANALYSIS REQUESTED <div style="transform: rotate(-45deg); display: inline-block; border: 1px solid black; padding: 5px;">                     80216TEX                      8015 TRH 6201DR0                 </div>										Lab use only Due Date: <u>1-0</u>				
		Contact: <u>A. Freeman</u> Phone: _____												Temp. of coolers when received (C°): 1   2   3   4   5 _____   _____   _____   _____   _____				
Project Manager <u>K. Summers</u>		PO/SO #: _____		Sampler's Name <u>Chad DeLoach</u>					Sampler's Signature 									
Proj. No. <u>7254012160</u>		Project Name <u>Morris #5</u>			No/Type of Containers _____					Lab Sample ID (Lab Use Only)								
Matrix	Date	Time	COED	Garb	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L						250 ml	Glass Jar	P/O	
S	5/31/16	15:20			SP-1						1		X X	1606001 CO1				
S	5/31/16	15:30			SP-2						1		X X	CO2				
<del>  </del>																		
Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush <u>Same Day</u>																		
Relinquished by (Signature) 			Date: <u>5-31-16</u> Time: <u>16:00</u>		Received by (Signature) 			Date: <u>5/31/16</u> Time: <u>16:00</u>		NOTES:  <div style="font-size: 2em; text-align: center;">Bill to Tom Long</div>								
Relinquished by (Signature) 			Date: <u>5/31/16</u> Time: <u>16:35</u>		Received by (Signature) 			Date: <u>5/31/16</u> Time: <u>16:35</u>										
Relinquished by (Signature) 			Date: <u>5/31/16</u> Time: <u>2015</u>		Received by (Signature) 			Date: <u>06/01/16</u> Time: <u>0715</u>										
Relinquished by (Signature) _____			Date: _____    Time: _____		Received by (Signature) _____			Date: _____    Time: _____										

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



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

June 07, 2016

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

RE: Morris #5

OrderNo.: 1606129

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/3/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-1

**Project:** Morris #5

**Collection Date:** 6/2/2016 2:10:00 PM

**Lab ID:** 1606129-001

**Matrix:** SOIL

**Received Date:** 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/3/2016 11:15:03 AM	25656
Surr: DNOP	101	70-130		%Rec	1	6/3/2016 11:15:03 AM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	6/3/2016 9:58:47 AM	25645
Surr: BFB	100	80-120		%Rec	1	6/3/2016 9:58:47 AM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.022		mg/Kg	1	6/3/2016 9:58:47 AM	25645
Toluene	ND	0.044		mg/Kg	1	6/3/2016 9:58:47 AM	25645
Ethylbenzene	ND	0.044		mg/Kg	1	6/3/2016 9:58:47 AM	25645
Xylenes, Total	ND	0.087		mg/Kg	1	6/3/2016 9:58:47 AM	25645
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	6/3/2016 9:58:47 AM	25645

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

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

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: APEX TITAN

Client Sample ID: S-2

Project: Morris #5

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

Lab ID: 1606129-002

Matrix: SOIL

Received Date: 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/3/2016 11:36:48 AM	25656
Surr: DNOP	102	70-130		%Rec	1	6/3/2016 11:36:48 AM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/3/2016 10:22:22 AM	25645
Surr: BFB	102	80-120		%Rec	1	6/3/2016 10:22:22 AM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/3/2016 10:22:22 AM	25645
Toluene	ND	0.047		mg/Kg	1	6/3/2016 10:22:22 AM	25645
Ethylbenzene	ND	0.047		mg/Kg	1	6/3/2016 10:22:22 AM	25645
Xylenes, Total	ND	0.095		mg/Kg	1	6/3/2016 10:22:22 AM	25645
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/3/2016 10:22:22 AM	25645

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

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

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: APEX TITAN  
 Project: Morris #5  
 Lab ID: 1606129-003

Matrix: SOIL

Client Sample ID: S-3  
 Collection Date: 6/2/2016 2:30:00 PM  
 Received Date: 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/3/2016 11:58:22 AM	25656
Surr: DNOP	99.9	70-130		%Rec	1	6/3/2016 11:58:22 AM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	6/3/2016 10:45:55 AM	25645
Surr: BFB	102	80-120		%Rec	1	6/3/2016 10:45:55 AM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	6/3/2016 10:45:55 AM	25645
Toluene	ND	0.041		mg/Kg	1	6/3/2016 10:45:55 AM	25645
Ethylbenzene	ND	0.041		mg/Kg	1	6/3/2016 10:45:55 AM	25645
Xylenes, Total	ND	0.082		mg/Kg	1	6/3/2016 10:45:55 AM	25645
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/3/2016 10:45:55 AM	25645

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-4

Project: Morris #5

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

Lab ID: 1606129-004

Matrix: SOIL

Received Date: 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/3/2016 12:20:04 PM	25656
Surr: DNOP	103	70-130		%Rec	1	6/3/2016 12:20:04 PM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	6/3/2016 11:09:32 AM	25645
Surr: BFB	104	80-120		%Rec	1	6/3/2016 11:09:32 AM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	6/3/2016 11:09:32 AM	25645
Toluene	ND	0.043		mg/Kg	1	6/3/2016 11:09:32 AM	25645
Ethylbenzene	ND	0.043		mg/Kg	1	6/3/2016 11:09:32 AM	25645
Xylenes, Total	ND	0.086		mg/Kg	1	6/3/2016 11:09:32 AM	25645
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/3/2016 11:09:32 AM	25645

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-5

Project: Morris #5

Collection Date: 6/2/2016 2:50:00 PM

Lab ID: 1606129-005

Matrix: SOIL

Received Date: 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/3/2016 10:54:28 AM	25656
Surr: DNOP	87.1	70-130		%Rec	1	6/3/2016 10:54:28 AM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	6/3/2016 11:33:03 AM	25645
Surr: BFB	101	80-120		%Rec	1	6/3/2016 11:33:03 AM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.022		mg/Kg	1	6/3/2016 11:33:03 AM	25645
Toluene	ND	0.045		mg/Kg	1	6/3/2016 11:33:03 AM	25645
Ethylbenzene	ND	0.045		mg/Kg	1	6/3/2016 11:33:03 AM	25645
Xylenes, Total	ND	0.089		mg/Kg	1	6/3/2016 11:33:03 AM	25645
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	6/3/2016 11:33:03 AM	25645

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

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

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: APEX TITAN  
 Project: Morris #5  
 Lab ID: 1606129-006

Matrix: SOIL

Client Sample ID: S-6  
 Collection Date: 6/2/2016 3:00:00 PM  
 Received Date: 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/3/2016 11:22:14 AM	25656
Surr: DNOP	93.5	70-130		%Rec	1	6/3/2016 11:22:14 AM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	6/3/2016 11:56:37 AM	25645
Surr: BFB	101	80-120		%Rec	1	6/3/2016 11:56:37 AM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	6/3/2016 11:56:37 AM	25645
Toluene	ND	0.040		mg/Kg	1	6/3/2016 11:56:37 AM	25645
Ethylbenzene	ND	0.040		mg/Kg	1	6/3/2016 11:56:37 AM	25645
Xylenes, Total	ND	0.079		mg/Kg	1	6/3/2016 11:56:37 AM	25645
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	6/3/2016 11:56:37 AM	25645

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

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

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: APEX TITAN

Client Sample ID: S-7

Project: Morris #5

Collection Date: 6/2/2016 3:10:00 PM

Lab ID: 1606129-007

Matrix: SOIL

Received Date: 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/3/2016 11:49:57 AM	25656
Surr: DNOP	92.0	70-130		%Rec	1	6/3/2016 11:49:57 AM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	6/3/2016 12:20:08 PM	25645
Surr: BFB	101	80-120		%Rec	1	6/3/2016 12:20:08 PM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	6/3/2016 12:20:08 PM	25645
Toluene	0.093	0.045		mg/Kg	1	6/3/2016 12:20:08 PM	25645
Ethylbenzene	ND	0.045		mg/Kg	1	6/3/2016 12:20:08 PM	25645
Xylenes, Total	ND	0.090		mg/Kg	1	6/3/2016 12:20:08 PM	25645
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	6/3/2016 12:20:08 PM	25645

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-8

Project: Morris #5

Collection Date: 6/2/2016 3:20:00 PM

Lab ID: 1606129-008

Matrix: SOIL

Received Date: 6/3/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/3/2016 12:17:42 PM	25656
Surr: DNOP	91.8	70-130		%Rec	1	6/3/2016 12:17:42 PM	25656
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	6/3/2016 12:43:46 PM	25645
Surr: BFB	101	80-120		%Rec	1	6/3/2016 12:43:46 PM	25645
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	6/3/2016 12:43:46 PM	25645
Toluene	ND	0.042		mg/Kg	1	6/3/2016 12:43:46 PM	25645
Ethylbenzene	ND	0.042		mg/Kg	1	6/3/2016 12:43:46 PM	25645
Xylenes, Total	ND	0.084		mg/Kg	1	6/3/2016 12:43:46 PM	25645
Surr: 4-Bromofluorobenzene	99.7	80-120		%Rec	1	6/3/2016 12:43:46 PM	25645

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606129

07-Jun-16

Client: APEX TITAN

Project: Morris #5

Sample ID	MB-25656	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	25656	RunNo:	34676					
Prep Date:	6/3/2016	Analysis Date:	6/3/2016	SeqNo:	1069821	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-25656	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	25656	RunNo:	34676					
Prep Date:	6/3/2016	Analysis Date:	6/3/2016	SeqNo:	1069822	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	51	10	50.00	0	101	62.6	124			
Surr: DNOP	5.0		5.000		99.6	70	130			

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606129

07-Jun-16

Client: APEX TITAN

Project: Morris #5

Sample ID	MB-25645	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25645	RunNo:	34678					
Prep Date:	6/2/2016	Analysis Date:	6/3/2016	SeqNo:	1070415	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
line Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	80	120			

Sample ID	LCS-25645	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25645	RunNo:	34678					
Prep Date:	6/2/2016	Analysis Date:	6/3/2016	SeqNo:	1070416	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	90.8	80	120			
Surr: BFB	1100		1000		109	80	120			

Sample ID	MB-25662	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25662	RunNo:	34709					
Prep Date:	6/3/2016	Analysis Date:	6/6/2016	SeqNo:	1071121	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	80	120			

Sample ID	LCS-25662	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25662	RunNo:	34709					
Prep Date:	6/3/2016	Analysis Date:	6/6/2016	SeqNo:	1071122	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		112	80	120			

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606129

07-Jun-16

Client: APEX TITAN

Project: Morris #5

Sample ID	MB-25645	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25645	RunNo:	34678					
Prep Date:	6/2/2016	Analysis Date:	6/3/2016	SeqNo:	1070436	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-25645	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25645	RunNo:	34678					
Prep Date:	6/2/2016	Analysis Date:	6/3/2016	SeqNo:	1070437	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	105	75.3	123			
Toluene	1.0	0.050	1.000	0	103	80	124			
Ethylbenzene	0.99	0.050	1.000	0	99.4	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	99.3	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	MB-25662	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25662	RunNo:	34709					
Prep Date:	6/3/2016	Analysis Date:	6/6/2016	SeqNo:	1071144	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-25662	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25662	RunNo:	34709					
Prep Date:	6/3/2016	Analysis Date:	6/6/2016	SeqNo:	1071149	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

### Qualifiers:

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

# Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1606129

RcptNo: 1

Received by/date: AD 06/03/14

Logged By: Anne Thorne 6/3/2016 7:45:00 AM

*Anne Thorne*

Completed By: Anne Thorne 6/3/2016

*Anne Thorne*

Reviewed By: AT 06/03/14

### 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, N.M.</u>		Laboratory: <u>Hell</u> Address: <u>ABQ N.M.</u>		ANALYSIS REQUESTED <div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;">                     BTEX 5001                      TPH @ 0.125/2.0 8015                 </div>										Lab use only Due Date: <u>1, 2</u>	
		Contact: <u>A. Freeman</u> Phone: _____ PO/SO #: _____												Temp. of coolers when received (C°): <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">2</td> <td style="width: 20px;">3</td> <td style="width: 20px;">4</td> <td style="width: 20px;">5</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> Page <u>1</u> of <u>1</u>	
1	2	3	4	5											
Project Manager <u>K. Summers</u>		Sampler's Name: <u>Cliff D'Arpent / Kyle Summers</u> Sampler's Signature: <u>[Signature]</u>		Lab Sample ID (Lab Use Only)											
Proj. No. <u>20540112160</u>		Project Name: <u>Horris #5</u>												No/Type of Containers	
Matrix	Date	Time	CO2	Org	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)		
S	6-2-16	2:10			S-1									1606129-001	
		2:30			S-2									202	
		2:30			S-3									203	
		2:40			S-4									204	
		2:50			S-5									205	
		3:00			S-6									206	
		3:10			S-7									207	
		3:20			S-8									208	
Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush <u>Same Day</u>															
Relinquished by (Signature)		Date:	Time:	Received by (Signature)		Date:	Time:	NOTES:  <div style="font-size: 1.2em; font-family: cursive;">                     Bill to Tom Long                 </div>							
[Signature]		6/2/16	1655	[Signature]		6/2/16	1659								
[Signature]		6/2/16	2020	[Signature]		6/2/16	0745								
[Signature]				[Signature]											
Relinquished by (Signature)		Date:	Time:	Received by (Signature)		Date:	Time:								
[Signature]				[Signature]											

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   AG - Amber / Or Glass 1 Liter   250 ml - Glass wide mouth   P/O - Plastic or other

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

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Lateral MA-5	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: BLM	Mineral Owner: BLM	Serial Number: NM080782
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**LOCATION OF RELEASE**

Unit Letter K	Section 35	Township 30N	Range 8W	Feet from the 2213	North/South Line	Feet from the 2248	East/West Line	County San Juan
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Latitude 36.76677 Longitude -107.64616

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release 3,174 MCF Gas	Volume Recovered: None
Source of Release: Suspected Stress Crack in Weld	Date and Hour of Occurrence: 10/6/2016 @ 10:00 a.m.	Date and Hour of Discovery: 10/6/2016 @ 10:00 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith – NMOCD; Whitney Thomas - BLM	
By Whom? Thomas Long	Date and Time October 7, 2016 @ 10:51 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: On October 6, 2016, Enterprise technicians discovered a gas leak on the Lateral MA-5 pipeline. No fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out.

Describe Area Affected and Cleanup Action: Repairs and remediation are in the scheduling process. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

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

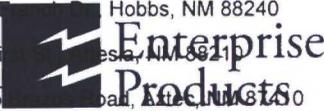
Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: 11/7/2016	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/14/2016	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

NES 1628138433  
BTEX, TPH include MRO  
Chlorides

1

District I  
1625 N. Hobbs, NM 88240  
District II  
811 S. F...  
District II  
1000 Rio...  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505



State of New Mexico  
Energy Minerals and Natural Resources  
ENTERPRISE PRODUCTS PARTNERS L.P.  
ENTERPRISE PRODUCTS HOLDINGS LLC  
(General Partner)  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011  
ENTERPRISE PRODUCTS OPERATING LLC  
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: <b>Lateral 6B-10</b>	Facility Type: <b>Natural Gas Gathering Pipeline</b>

Surface Owner: <b>Navajo/NAPI</b>	Mineral Owner: <b>Navajo</b>	Serial Number: <b>N/A</b>
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### LOCATION OF RELEASE

Unit Letter <b>P</b>	Section <b>27</b>	Township <b>28N</b>	Range <b>12W</b>	Feet from the <b>20</b>	North Line <b>South</b>	Feet from the <b>664</b>	<b>East</b> West Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	----------------------------	----------------------------	-----------------------------	--------------------------	---------------------------

Latitude 36.625981 Longitude -108.092347

### NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release <b>Unknown</b>	Volume Recovered: <b>None</b>
Source of Release: Suspected Internal Corrosion	Date and Hour of Occurrence: <b>10/28/2016 @ 11:55 a.m.</b>	Date and Hour of Discovery: <b>10/28/2016 @ 12:30 p.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields - NMOCD, Steve Austin - NNEPA, Mike Freeman - NAPI	
By Whom? Thomas Long	Date and Time October 28, 2016 @ 1:17 p.m.	<b>OIL CONSERVATION DIV. DIST. 3</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\*  
Describe Cause of Problem and Remedial Action: On October 28, 2016, Enterprise technicians discovered a gas leak on the Lateral 6B-10 pipeline. An area of approximately 150 feet long by 30 feet wide was affected by fluids release to the ground surface. The pipeline was isolated, blown down, locked out and tagged out. Standing liquid and saturated soil were recovered from the ground surface and properly disposed.

Describe Area Affected and Cleanup Action: Repairs and remediation are in the scheduling process. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

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

Signature: <i>Jon Fields</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: <b>12/7/16</b>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval: <b>Sample For</b>	Attached <input checked="" type="checkbox"/>
Date: <b>11-3-2016</b>	Phone: (713)381-6684	<b>TPH (max 600-DB) &gt; BTEX</b>

\* Attach Additional Sheets If Necessary

P. O. BOX 4324  
HOUSTON, TX 77210-4324  
713.381.6500

#NVP163254194 3RP-1011

1100 LOUISIANA STREET  
HOUSTON, TX 77002-5227  
www.enterpriseproducts.com

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 11/7/16 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NOF 1631254194 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 Aztec on or before 1/7/16. 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<sub>6</sub> thru C<sub>36</sub>), 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<sub>6</sub> thru C<sub>36</sub>), 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.**

**Jim Griswold**  
OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.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: <b>Blanco Plant D-Turbine</b>	Facility Type: <b>Natural Gas Processing Plant</b>

Surface Owner: <b>BLM</b>	Mineral Owner: <b>BLM</b>	Serial Number: <b>NM 0 014706</b>
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**LOCATION OF RELEASE**

Unit Letter <b>O</b>	Section <b>11</b>	Township <b>29N</b>	Range <b>11W</b>	Feet from the <b>620</b>	North/South Line	Feet from the <b>152</b>	East/West Line	County <b>San Juan</b>
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Latitude 36.734617 Longitude -107.960433

**NATURE OF RELEASE**

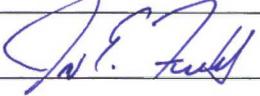
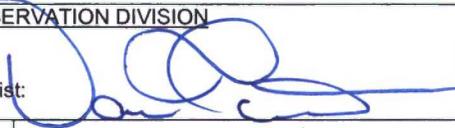
Type of Release: Lubrication Oil	Volume of Release <b>Approximately 15 barrels</b>	Volume Recovered: <b>None</b>
Source of Release: Facility Blowdown Vent Pipe	Date and Hour of Occurrence: <b>11/7/2016 @ 1:40 p.m.</b>	Date and Hour of Discovery: <b>11/7/2016 @ 1:40 p.m.</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields - NMOCD and Whitney Thomas - BLM	
By Whom? Thomas Long	Date and Time November 8, 2016 @ 2:27 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

OIL CONSERV. DIV DIST. 3  
NOV 28 2016

If a Watercourse was Impacted, Describe Fully.\*  
Describe Cause of Problem and Remedial Action: On November 7, 2016, a release of lubrication oil from facility blowdown vent pipe occurred. The release was a result of residual lubrication seal oil being ejected from the blowdown vent pipe during an Emergency Shutdown event. The Emergency Shutdown event occurred during equipment maintenance activities at the Blanco Plant facility. The blowdown vent pipe is used when the station is being depressurized due to either an emergency event or during maintenance activities

Describe Area Affected and Cleanup Action: An area of approximately 240 feet long by 60 feet wide was saturated with lubrication oil. An area of approximately 0.75 miles long was misted with the lubrication oil. The Conoco Phillips San Juan Gas Plant and residents located to west of the facility were impacted. Vehicles were impacted with a mist of lubrication oil. Enterprise provided cleaning services for impacted property owner's vehicles. Enterprise has developed a remediation plan which has been approved by BLM and NMOCD. Enterprise will implement this plan as soon as all contractors are available and a job plan safety analysis has been completed. A third party corrective action report will be included with the "Final." C-141. This C-141 submittal is associated with **Incident # nVF1631952275**.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>12/6/2016</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: <u>11/18/2016</u> Phone: (713)381-6684	<u>See attached</u> <u>NVF1631952275</u>	

\* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 12/6/2016 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NWF163195225 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 Aztec on or before 1/6/2017 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.**

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:

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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.

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**Jim Griswold**

OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.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: <b>MAPL Line ID 696 AID 141 – 3 Inch</b>	Facility Type: <b>Natural Gas Transmission Pipeline</b>
Surface Owner: <b>Navajo Nation</b>	Mineral Owner: <b>Navajo Nation</b>
Serial Number: NA	

**LOCATION OF RELEASE**

Unit Letter <b>I</b>	Section <b>22</b>	Township <b>29N</b>	Range <b>14W</b>	Feet from the <b>2351</b>	North <b>South</b> Line	Feet from the <b>318</b>	<b>East</b> West Line	County <b>San Juan</b>
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Latitude 36.71179 Longitude -108.28912

**NATURE OF RELEASE**

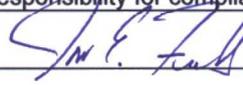
Type of Release: Potable Water	Volume of Release <b>30 BBLs</b> <b>Potable Water</b>	Volume Recovered: <b>16 BBLs</b> <b>Potable Water</b>
Source of Release: Pipeline Rupture	Date and Hour of Occurrence: <b>8/17/2016 @ 11:30 a.m.</b>	Date and Hour of Discovery: <b>8/17/2016 @ 11:30 a.m.</b>
Was Immediate Notice Given? Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not	If YES, To Whom? Vanessa Fields – NMOCD, Steve Austin – NNEPA	
By Whom? Thomas Long	Date and Time <b>8/17/2016 @ 2:36 p.m.</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: At approximately 11:30 a.m. on August 17, 2016, a rupture occurred during hydro-static testing of the MAPL Line ID 696 AID 141 – 3 Inch pipeline. Approximately 30 barrels of potable water was released to the subsurface and ground surface and flowed north along the right-of-way. Approximately 16 barrels of potable water was recovered and properly disposed at a New Mexico Oil Conservation Division approved facility.

Describe Area Affected and Cleanup Action: Enterprise collected soil samples from the source and flow path of the release on August 18, 2016 with NMOCD witnessing sample collection. Analytical results indicated no environmental impact. A third party corrective action report is included with this "Final" C-141.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Field Environmental	Approval Date: <b>12/19/16</b>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>10/27/2016</b>	Phone: (713)381-6684	<b>NVF11625142047</b>

\* Attach Additional Sheets If Necessary

52



**CORRECTIVE ACTION REPORT**

Property:

**MAPL LID 696 AID 141 – 3 Inch  
SE ¼ S22 T29N R14W  
San Juan County, New Mexico**

October 5, 2016  
Apex Project No. 725040112192

**OIL CONS. DIV DIST. 3  
OCT 31 2016**

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

## TABLE OF CONTENTS

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<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
<b>1.1</b>	<b>Site Description &amp; Background</b> .....	<b>1</b>
<b>1.2</b>	<b>Project Objective</b> .....	<b>1</b>
<b>2.0</b>	<b>SITE RANKING</b> .....	<b>1</b>
<b>3.0</b>	<b>RESPONSE ACTIONS</b> .....	<b>2</b>
<b>3.1</b>	<b>Soil Excavation Activities</b> .....	<b>2</b>
<b>3.2</b>	<b>Soil Sampling Program</b> .....	<b>3</b>
<b>3.3</b>	<b>Soil Laboratory Analytical Methods</b> .....	<b>3</b>
<b>3.4</b>	<b>Water Laboratory Analytical Methods</b> .....	<b>4</b>
<b>4.0</b>	<b>DATA EVALUATION</b> .....	<b>4</b>
<b>4.1</b>	<b>Flow Path Soil Samples</b> .....	<b>4</b>
<b>4.2</b>	<b>Water Samples</b> .....	<b>4</b>
<b>5.0</b>	<b>FINDINGS AND RECOMMENDATIONS</b> .....	<b>5</b>
<b>6.0</b>	<b>STANDARD OF CARE, LIMITATIONS, AND RELIANCE</b> .....	<b>6</b>

### LIST OF APPENDICES

<b>Appendix A:</b>	Figure 1	Topographic Map
	Figure 2	Site Vicinity Map
	Figure 3	Site Map with Soil Analytical Results
<b>Appendix B:</b>	Photographic Documentation	
<b>Appendix C:</b>	Tables	
<b>Appendix D:</b>	Laboratory Analytical Reports & Chain of Custody Documentation	



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## CORRECTIVE ACTION REPORT

**MAPL LID 696 AID 141 – 3 Inch**  
SE ¼ S22 T29N R14W  
San Juan County, New Mexico

**Apex Project No. 725040112192**

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The Mid-Atlantic Pipeline (MAPL) Line ID (LID) 696 Aerial ID (AID) 141- 3 Inch pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southeast (SE) ¼ of Section 22, Township 29 North, Range 14 West, in San Juan County, New Mexico (36.71179N, 108.28912W), referred to hereinafter as the "Site". The Site is located in the Navajo Nation and is surrounded by native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including one Enterprise natural gas pipeline which traverses the area from approximately north to south.

On August 8, 2016, Enterprise initiated preparation activities to perform a scheduled hydrostatic pressure test on the LID 696 AID 141 – 3 inch pipeline, which covers a total distance of approximately 26.1 miles, to verify the integrity of the pipeline. The hydrostatic pressure test resulted in one (1) rupture. The resulting pipeline failure was subsequently repaired by replacing a four foot section of pipe. The pipeline was subsequently re-tested with no failures.

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

#### 1.2 Project Objective

The primary objective of the environmental corrective action was to evaluate the potential impact to the environment from the released hydrostatic test water. The soils affected by the test water, as well as the test water itself, were evaluated to determine if constituents of concern (COCs) were present in the on-Site soils at concentrations above the applicable regulatory standards.

### 2.0 SITE RANKING

The Site is subject to regulatory oversight by the Navajo Nation Environmental Protection Agency (NNEPA) and the New Mexico Oil Conservation Division (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	0
	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	
<b>Total Ranking Score</b>			<b>10</b>

Based on Apex's evaluation of the scoring criteria, the Site has a Total Ranking Score of 10. This ranking is based on the following:

- No water wells were identified on the OSE website. However based on the Sites' relatively high elevation with respect to the San Juan River, the depth to groundwater at the Site is anticipated to be greater than 100 feet below grade surface (bgs), resulting in a ranking of "0" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking of "0".
- The release is located approximately 400 feet west and 550 feet east of a small ephemeral wash that drains to the San Juan River, and is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking of "10".

A Site ranking of 10 correlates to OCD *Remediation Action Levels (RALS)* for soils as follows:

- Benzene at 10 milligrams/kilogram (mg/kg);
- Benzene, ethylbenzene, toluene and total xylenes (BTEX) at 50 mg/kg; and,
- Total petroleum hydrocarbons (TPH) combined gasoline range organics (GRO) and diesel range organics (DRO) at 1,000 mg/kg.

### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On August 8, 2016, Enterprise initiated preparation activities to perform a scheduled hydrostatic pressure test on the LID 696 AID 141 – 3 Inch pipeline, which covers a total distance of approximately 26.1 miles, to verify the integrity of the pipeline. The hydrostatic pressure test resulted in one (1) rupture. The resulting pipeline failure was subsequently repaired by replacing a four foot section of pipe. The pipeline was subsequently re-tested with no failures. During the pipeline repair activities, Sunland Construction, INC., provided heavy equipment and labor support, and Raneer Deechilly, an Apex environmental professional, provided environmental support.

On August 18, 2016, prior to pipeline repair activities, Enterprise dewatered the section of the pipeline where the leak was identified. The water was subsequently removed from the excavation utilizing a spec-truck for disposal at an approved facility. Five (5) confirmation soil samples were collected from the sidewalls and base of the repair excavation. Additionally, one (1) composite soil sample (SP-1) was collected from the stockpiled soils to evaluate its potential for reuse as backfill.

The repair excavation measured approximately 25 feet long by 14 feet wide. The total depth varied from approximately five (5) feet bgs (north end) to 11 feet bgs (south end).

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand, poorly sorted gravel, and weathered sandstone.

The excavation was backfilled with laboratory-confirmed stockpiled soils and then contoured to surrounding grade.

Domestic supply water from the City of Farmington was utilized as the test fluid during the hydrostatic test. One (1) water sample was collected from the pipeline at the Chaco Gas Plant on August 11, 2016.

Approximately 16 barrels (bbls) of hydrostatic test water were recovered from the excavation and transported to Agua Moss, LLC for disposal.

Figure 3 is a site map that indicates the approximate location of the excavated area and stockpiles in relation to Enterprise pipeline (Appendix A). Photographic documentation of the field activities is included in Appendix B.

### **3.2 Soil and Water 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 five (5) confirmation soils samples (S-1 through S-5) and one (1) composite stockpile sample (SP-1) for laboratory analysis. Additionally, one (1) water sample (H-1 (Pipeline)) was collected from the pipeline at the Chaco Gas Plant.

Figure 3 depicts the approximate location of the excavated area and stockpiles and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

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

### **3.3 Soil Laboratory Analytical Methods**

The confirmation soil samples were analyzed for BTEX using EPA SW-846 Method #8021 and TPH GRO/DRO using EPA SW-846 Method #8015.

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

### 3.4 Water Laboratory Analytical Methods

The water sample collected from the pipeline was analyzed for volatile organic compounds (VOCs) using EPA Method #8260, RCRA 8 metals, cations/anions, and chlorides.

Laboratory results are summarized in Tables 2 through 4, included in Appendix C. The executed chain-of-custody form and laboratory data sheets are provided in Appendix D.

## 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 Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final confirmation soil samples and stockpile soil samples to the OCD *RALs* for sites having a total ranking score of "10".

- The laboratory analyses of the confirmation soil samples collected from excavation and reused stockpiled soils indicate benzene concentrations below the PQLs, which are below the OCD *RAL* of 10 milligram per kilogram (mg/kg). The laboratory analyses of the confirmation soil samples indicate total BTEX concentrations below the PQLs, which are below the OCD *RAL* of 50 mg/kg.
- The laboratory analyses of confirmation soil samples collected from the excavation and reused stockpiled soils indicate combined TPH GRO/DRO concentrations below PQLs, which are below the OCD *RAL* of 1,000 mg/kg.

Soil sample laboratory analytical results are provided in Table 1 in Appendix C.

### 4.2 Water Samples

Apex compared constituent concentrations or PQLs associated with the water sample collected from the water-filled pipeline to the New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standard (GQS), WQCC Human Health Standards (HHSs), and WQCC Domestic Water Supply Standards (DWSSs).

#### VOCs

- The water sample collected from water-filled pipeline exhibited a benzene concentration of 770 microgram per liter ( $\mu\text{g/L}$ ), which is above the WQCC GQS standard of 10  $\mu\text{g/L}$ .
- The water sample exhibited a toluene concentration of 7,200  $\mu\text{g/L}$ , which is above the WQCC GQS standard of 750  $\mu\text{g/L}$ .
- The water sample exhibited a ethylbenzene concentration of 320  $\mu\text{g/L}$ , which is below the WQCC GQS standard of 750  $\mu\text{g/L}$ .

- The water sample exhibited a xylenes concentration of 2,900 µg/L, which above the WQCC GQS standard of 620 µg/L.
- No other VOCs were identified in the water sample.

Although the released test water exhibited COC concentrations that exceed the WQCC standards, the test water did not have the opportunity to affect surface water or groundwater. Additionally, the BTEX constituents that exhibited concentrations above the WQCC standards were not present in high enough concentrations to result in OCD RAL exceedances in soils.

#### **RCRA 8 Metals**

- The water sample collected from the water-filled pipeline does not exhibit RCRA 8 Metal constituent concentrations above applicable WQCC HHSs.

#### **Anions and Cations**

- The water sample collected from the water-filled pipeline does not exhibit Anion and Cation concentrations above applicable WQCC HHSs and DWSSs.

The results of the groundwater sample analyses are summarized in Tables 2 through 4 of Appendix C. Laboratory data sheets and chain-of-custody documentation are provided as Appendix D.

## **5.0 FINDINGS AND RECOMMENDATIONS**

The MAPL LID 696 AID 141 – 3 Inch pipeline release Site is located within the Enterprise pipeline ROW in the SE ¼ of Section 22, Township 29 North, Range 14 West, in San Juan County, New Mexico. The Site is located in the Navajo Nation and is surrounded by native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including one Enterprise natural gas pipeline which traverses the area from approximately north to south.

On August 8, 2016, Enterprise initiated preparation activities to perform a scheduled hydrostatic pressure test on the LID 696 AID 141 – 3 Inch pipeline, which covers a total distance of approximately 26.1 miles, to verify the integrity of the pipeline. The hydrostatic pressure test resulted in one (1) rupture. The resulting pipeline failure was subsequently repaired by replacing a four foot section of pipe. The pipeline was subsequently re-tested with no failures.

- The primary objective of the environmental corrective action was to evaluate the potential impact to the environment from the released hydrostatic test water. The soils affected by the test water, as well as the test water itself, were evaluated to determine if COCs were present in the on-Site soils at concentrations above the applicable regulatory standards.
- The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand, poorly sorted gravel, and weathered sandstone.
- The repair excavation measured approximately 25 feet long by 14 feet wide. The total depth varied from approximately five (5) feet bgs to 11 feet bgs.
- Prior to backfilling, five (5) excavation soil samples and one (1) stockpiled soil sample were collected for laboratory analyses. Based on analytical results, soils remaining in place and the reused stockpiled soils do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD RALs for a site ranking of "10".

- One (1) water sample was collected from the pipeline for laboratory analyses. Based on analytical results, the water sample exhibited COC concentrations above the NM WQCC GQSSs. However, the test water did not flow into a "surface water", and an insufficient quantity of water was released to result in a groundwater impact. Additionally, the BTEX constituents that exhibited concentrations above the WQCC standards were not present in high enough concentrations to result in OCD RAL exceedances in soils.
- Approximately 16 bbls of hydrostatic test water were recovered from the excavation and transported to Agua Moss, LLC for disposal. The excavation was backfilled with laboratory-confirmed stockpiled soils and then contoured to the approximate surrounding grade.

**Based on the laboratory analytical results, no additional investigation or corrective action appears warranted at this time.**

## **6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE**

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

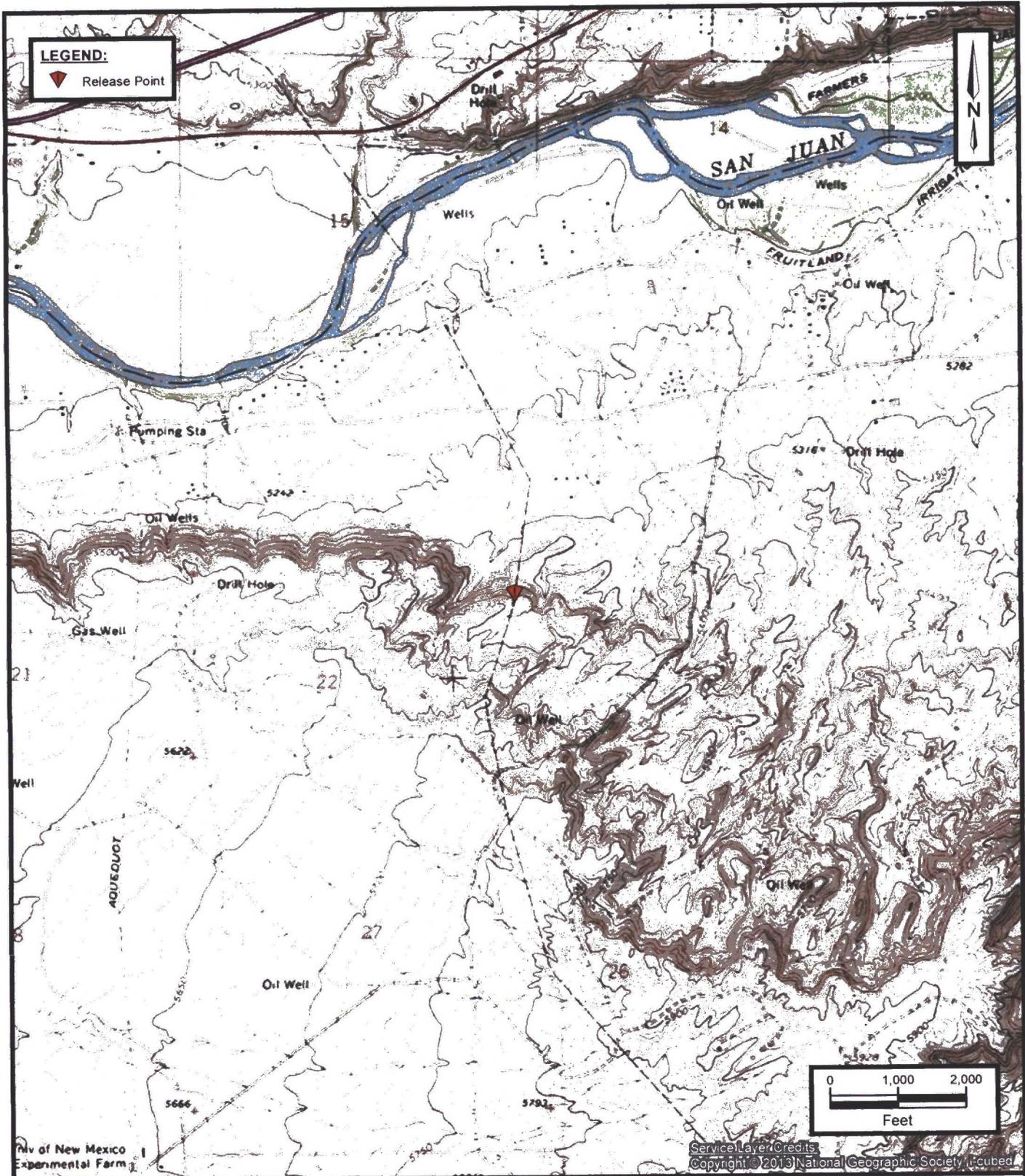
Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence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

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

## APPENDIX A

### Figures

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MAPL LID 696 AID 141 - 3 Inch  
 SE 1/4 Sec22 T29N R14W  
 San Juan County, New Mexico  
 36.71179 N, 108.28912 W



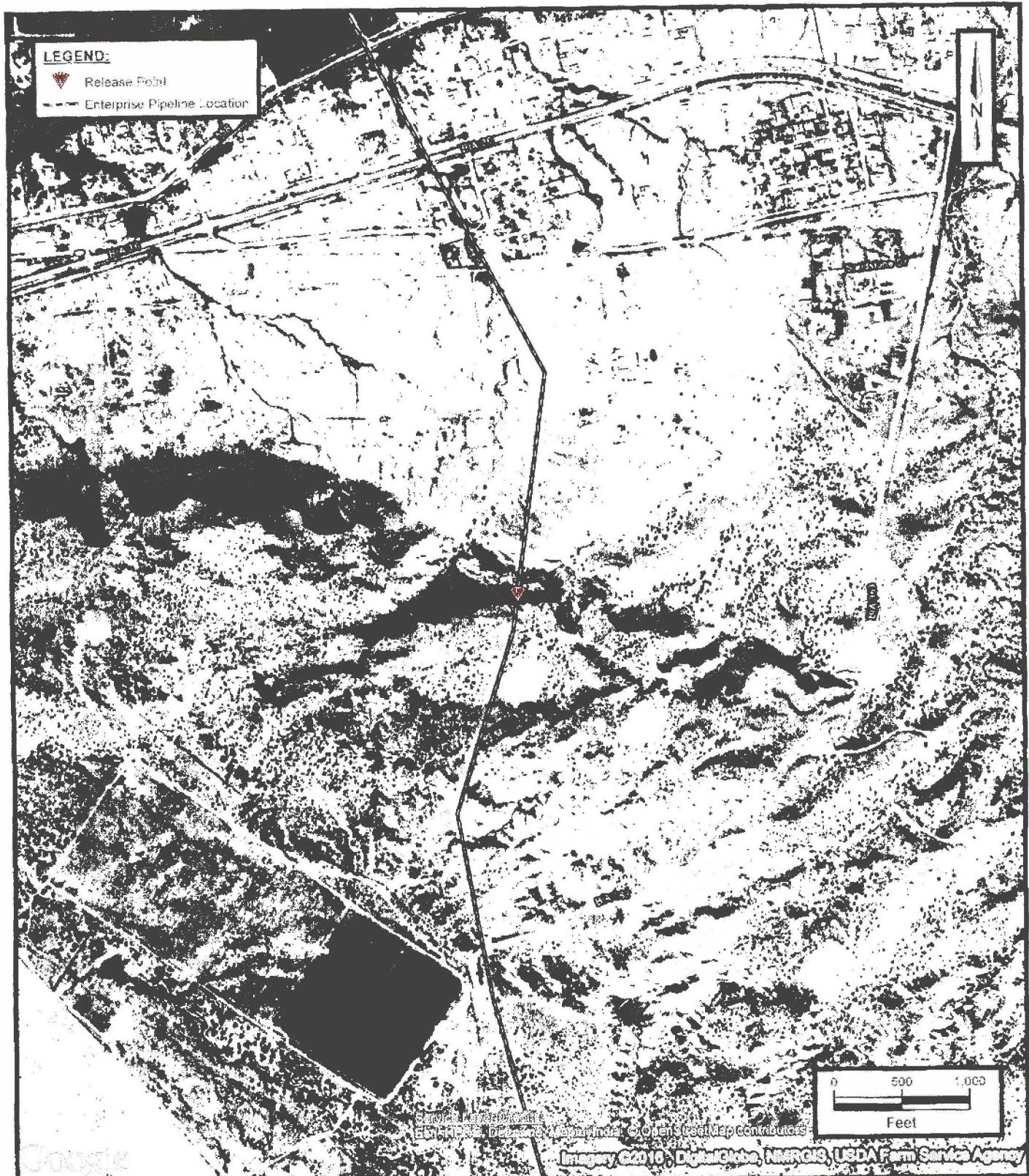
**Apex TITAN, Inc.**  
 606 South Rio Grande, Suite A  
 Aztec, New Mexico 87410  
 Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)  
 A Subsidiary of Apex Companies, LLC

**FIGURE 1**

**Topographic Map**

Kirtland New Mexico Quadrangle  
 1978

Project No. 725040112192



MAPL LID 696 AID 141 - 3 inch  
 SE 1/4 Sec22 T29N R14W  
 San Juan County, New Mexico  
 36.71179 N, 108.28912 W



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 A Subsidiary of Apex Companies, LLC

**FIGURE 2**  
 Site Vicinity Map  
 Aerial Photograph March 2015

Project No. 725040112192



**LEGEND:**

- Confirmation Sample Location
- ▼ Release Point
- Enterprise Pipeline Location
- ▨ Soil Stockpile Location
- ▨ Extent of Excavation
- ▨ Excavation Slope Area

**SP-1**  
8/18/2016

Benzene	<0.021
Toluene	<0.041
Ethylbenzene	<0.041
Xylenes	<0.083
Total BTEX	ND
TPH GRO	<4.1
TPH DRO	<9.9

**S-3**  
8/18/2016

0-5'	
Benzene	<0.082
Toluene	<0.16
Ethylbenzene	<0.16
Xylenes	<0.33
Total BTEX	ND
TPH GRO	<16
TPH DRO	<9.8

**S-2**  
8/18/2016

0-5.5'	
Benzene	<0.020
Toluene	<0.041
Ethylbenzene	<0.041
Xylenes	<0.082
Total BTEX	ND
TPH GRO	<4.1
TPH DRO	<9.7

**S-4**  
8/18/2016

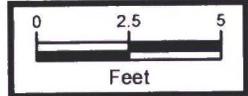
0-6.5'	
Benzene	<0.023
Toluene	<0.046
Ethylbenzene	<0.046
Xylenes	<0.091
Total BTEX	ND
TPH GRO	<4.6
TPH DRO	<9.5

**S-1**  
8/18/2016

6.5'	
Benzene	<0.026
Toluene	<0.052
Ethylbenzene	<0.052
Xylenes	<0.10
Total BTEX	ND
TPH GRO	<5.2
TPH DRO	<9.5

**S-5**  
8/19/2016

0-11'	
Benzene	<0.020
Toluene	<0.040
Ethylbenzene	<0.040
Xylenes	<0.080
Total BTEX	ND
TPH GRO	<4.0
TPH DRO	<9.8



**MAPL LID 696 AID 141 - 3 Inch**  
SE 1/4 Sec22 T29N R14W  
San Juan County, New Mexico  
36.71179 N, 108.28912 W

Project No. 725040112192



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A Subsidiary of Apex Companies, LLC

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

APPENDIX B

Photographic Documentation

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**Photograph 1**

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



**Photograph 2**

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



**Photograph 3**

View of repaired pipeline, facing northwest.



## APPENDIX C

### Tables

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**TABLE 1**  
**MAPL LID 696 AID 141 - 3 Inch Pipeline**  
**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)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level				10	NE	NE	NE	50	1,000	
<b>Stockpile Soil Samples</b>										
SP-1	8.18.16	C	Stockpile	<0.021	<0.041	<0.041	<0.083	ND	<4.1	<9.9
<b>Excavation Confirmation Samples</b>										
S-1	8.18.16	C	6.5	<0.026	<0.052	<0.052	<0.10	ND	<5.2	<9.5
S-2	8.18.16	C	0 to 6.5	<0.020	<0.041	<0.041	<0.082	ND	<4.1	<9.7
S-3	8.18.16	C	0 to 5	<0.082	<0.16	<0.16	<0.33	ND	<16	<9.8
S-4	8.18.16	C	0 to 6.5	<0.023	<0.046	<0.046	<0.091	ND	<4.6	<9.5
S-5	8.18.16	C	0 to 11	<0.020	<0.040	<0.040	<0.080	ND	<4.0	<9.8

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

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established



**TABLE 2**  
**MAPL LID 696 AID 141 - 3 Inch Pipeline**  
WATER ANALYTICAL SUMMARY- Volatile Organic Compounds

Sample I.D.	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10	750	750	620
Water Sample					
H-1 (Pipeline)	6.17.16	<b>770</b>	<b>7,200</b>	320	<b>2,900</b>

Note: Concentrations in **bold** and yellow exceed a WQCC GQSS.

NE = Not Established

NA = Not Analyzed



**TABLE 3**  
**MAPL LID 696 AID 141 - 3 Inch Pipeline**  
**WATER ANALYTICAL SUMMARY- RCRA 8 METALS**

Sample I.D.	Date	Arsenic (mg/L)	Barium (mg/L)	Cadium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
<b>New Mexico Water Quality Control Commission Human Health Standards</b>		0.1	1.0	0.01	0.05	0.05	0.002	0.05	0.05
<b>Water Sample</b>									
H-1 (Pipeline)	8.11.16	<0.020	0.054	<0.0020	<0.0060	<0.0050	0.0014	<0.050	<0.0050

Note: All RCRA 8 Metals are priority pollutants under the NM WQCC and federal CWA except Barium.  
Barium is a priority pollutant under NM WQCC but not under the federal CWA.



**TABLE 4**  
**MAPL LID 696 AID 141 - 3 Inch Pipeline**  
**WATER ANALYTICAL SUMMARY- ANIONS AND CATIONS**

Sample I.D.	Date	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
<b>New Mexico Water Quality Control Commission Human Health and Domestic Water Supply Standards</b>		1.6	250	600	NE	NE	NE	NE
<b>Water Sample</b>								
H-1 (Pipeline)	8.11.16	0.96	26	120	56	9.5	2.0	26

Note: Calcium, mangesium, potassium, and sodium are not priority pollutants under the federal CWA or the NM WQCC.

Chloride and sulfate priority pollutants under NM WQCC but not under the federal CWA.

NE = Not Established

APPENDIX D

Laboratory Data Sheets  
& Chain of Custody Documentation

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

August 25, 2016

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

RE: MAPL LID 696

OrderNo.: 1608742

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/12/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order 1608742

Date Reported: 8/25/2016

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** H-1 (Pipeline)

**Project:** MAPL LID 696

**Collection Date:** 8/11/2016 3:45:00 PM

**Lab ID:** 1608742-001

**Matrix:** AQUEOUS

**Received Date:** 8/12/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Fluoride	0.96	0.50		mg/L	5	8/12/2016 3:51:58 PM	R36501
Chloride	26	2.5		mg/L	5	8/12/2016 3:51:58 PM	R36501
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/12/2016 3:51:58 PM	R36501
Bromide	ND	0.50		mg/L	5	8/12/2016 3:51:58 PM	R36501
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/12/2016 3:51:58 PM	R36501
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/12/2016 3:51:58 PM	R36501
Sulfate	120	2.5		mg/L	5	8/12/2016 3:51:58 PM	R36501
<b>EPA METHOD 200.7: METALS</b>							Analyst: <b>MED</b>
Arsenic	ND	0.020		mg/L	1	8/22/2016 2:38:05 PM	26987
Barium	0.054	0.0020		mg/L	1	8/17/2016 1:10:07 PM	26987
Cadmium	ND	0.0020		mg/L	1	8/17/2016 1:10:07 PM	26987
Calcium	56	1.0		mg/L	1	8/17/2016 1:10:07 PM	26987
Chromium	ND	0.0060		mg/L	1	8/17/2016 1:10:07 PM	26987
Lead	ND	0.0050		mg/L	1	8/17/2016 1:10:07 PM	26987
Magnesium	9.5	1.0		mg/L	1	8/17/2016 1:10:07 PM	26987
Potassium	2.0	1.0		mg/L	1	8/17/2016 1:10:07 PM	26987
Selenium	ND	0.050		mg/L	1	8/17/2016 1:10:07 PM	26987
Silver	ND	0.0050		mg/L	1	8/17/2016 1:10:07 PM	26987
Sodium	26	1.0		mg/L	1	8/17/2016 1:10:07 PM	26987
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>pmf</b>
Mercury	0.0014	0.00020		mg/L	1	8/16/2016 12:26:45 PM	26993
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>
Benzene	770	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Toluene	7200	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Ethylbenzene	320	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2,4-Trimethylbenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,3,5-Trimethylbenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Naphthalene	ND	200		µg/L	100	8/17/2016 6:53:08 AM	B36550
1-Methylnaphthalene	ND	400		µg/L	100	8/17/2016 6:53:08 AM	B36550
2-Methylnaphthalene	ND	400		µg/L	100	8/17/2016 6:53:08 AM	B36550
Acetone	ND	1000		µg/L	100	8/17/2016 6:53:08 AM	B36550
Bromobenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Bromodichloromethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Bromoform	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Bromomethane	ND	300		µg/L	100	8/17/2016 6:53:08 AM	B36550

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1608742

Date Reported: 8/25/2016

CLIENT: APEX TITAN

Client Sample ID: H-1 (Pipeline)

Project: MAPL LID 696

Collection Date: 8/11/2016 3:45:00 PM

Lab ID: 1608742-001

Matrix: AQUEOUS

Received Date: 8/12/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF
2-Butanone	ND	1000		µg/L	100	8/17/2016 6:53:08 AM	B36550
Carbon disulfide	ND	1000		µg/L	100	8/17/2016 6:53:08 AM	B36550
Carbon Tetrachloride	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Chlorobenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Chloroethane	ND	200		µg/L	100	8/17/2016 6:53:08 AM	B36550
Chloroform	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Chloromethane	ND	300		µg/L	100	8/17/2016 6:53:08 AM	B36550
2-Chlorotoluene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
4-Chlorotoluene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
cis-1,2-DCE	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
cis-1,3-Dichloropropene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	8/17/2016 6:53:08 AM	B36550
Dibromochloromethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Dibromomethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2-Dichlorobenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,3-Dichlorobenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,4-Dichlorobenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Dichlorodifluoromethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,1-Dichloroethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,1-Dichloroethene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2-Dichloropropane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,3-Dichloropropane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
2,2-Dichloropropane	ND	200		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,1-Dichloropropene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Hexachlorobutadiene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
2-Hexanone	ND	1000		µg/L	100	8/17/2016 6:53:08 AM	B36550
Isopropylbenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
4-Isopropyltoluene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
4-Methyl-2-pentanone	ND	1000		µg/L	100	8/17/2016 6:53:08 AM	B36550
Methylene Chloride	ND	300		µg/L	100	8/17/2016 6:53:08 AM	B36550
n-Butylbenzene	ND	300		µg/L	100	8/17/2016 6:53:08 AM	B36550
n-Propylbenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
sec-Butylbenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Styrene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
tert-Butylbenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	8/17/2016 6:53:08 AM	B36550
Tetrachloroethene (PCE)	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
trans-1,2-DCE	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN  
 Project: MAPL LID 696  
 Lab ID: 1608742-001

Client Sample ID: H-1 (Pipeline)  
 Collection Date: 8/11/2016 3:45:00 PM  
 Received Date: 8/12/2016 7:30:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF
trans-1,3-Dichloropropene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2,3-Trichlorobenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2,4-Trichlorobenzene	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,1,1-Trichloroethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,1,2-Trichloroethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Trichloroethene (TCE)	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Trichlorofluoromethane	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
1,2,3-Trichloropropane	ND	200		µg/L	100	8/17/2016 6:53:08 AM	B36550
Vinyl chloride	ND	100		µg/L	100	8/17/2016 6:53:08 AM	B36550
Xylenes, Total	2900	150		µg/L	100	8/17/2016 6:53:08 AM	B36550
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	100	8/17/2016 6:53:08 AM	B36550
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	100	8/17/2016 6:53:08 AM	B36550
Surr: Dibromofluoromethane	106	70-130		%Rec	100	8/17/2016 6:53:08 AM	B36550
Surr: Toluene-d8	102	70-130		%Rec	100	8/17/2016 6:53:08 AM	B36550

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
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	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#: 1608742

25-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696

Sample ID	MB-26987	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	26987	RunNo:	36564					
Prep Date:	8/15/2016	Analysis Date:	8/17/2016	SeqNo:	1132337	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Selenium	ND	0.050								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS-26987	SampType:	LCS	TestCode:	EPA Method 200.7: Metals					
Client ID:	LCSW	Batch ID:	26987	RunNo:	36564					
Prep Date:	8/15/2016	Analysis Date:	8/17/2016	SeqNo:	1132338	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.4	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.9	85	115			
Calcium	50	1.0	50.00	0	99.0	85	115			
Chromium	0.48	0.0060	0.5000	0	95.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.8	85	115			
Magnesium	50	1.0	50.00	0	99.7	85	115			
Potassium	49	1.0	50.00	0	97.7	85	115			
Selenium	0.51	0.050	0.5000	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	99.6	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			

Sample ID	LLLCS-26987	SampType:	LCSLL	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	26987	RunNo:	36564					
Prep Date:	8/15/2016	Analysis Date:	8/17/2016	SeqNo:	1132339	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0029	0.0020	0.002000	0	145	50	150			
Cadmium	ND	0.0020	0.002000	0	84.5	50	150			
Calcium	ND	1.0	0.5000	0	97.9	50	150			
Chromium	ND	0.0060	0.006000	0	98.0	50	150			
Lead	ND	0.0050	0.005000	0	80.4	50	150			
Magnesium	ND	1.0	0.5000	0	101	50	150			
Potassium	ND	1.0	0.5000	0	101	50	150			
Selenium	ND	0.050	0.05000	0	96.3	50	150			

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608742

25-Aug-16

Client: APEX TITAN  
Project: MAPL LID 696

Sample ID	LLLCS-26987	Sample Type:	LCSLL	Test Code:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	26987	Run No:	36564					
Prep Date:	8/15/2016	Analysis Date:	8/17/2016	Seq No:	1132339	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050	0.005000	0	86.0	50	150			
Sodium	ND	1.0	0.5000	0	101	50	150			

### Qualifiers:

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- B Analyte detected in the associated Method Blank
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**QC SUMMARY REPORT**  
**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1608742  
 25-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696

Sample ID <b>MB-26993</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>PBW</b>	Batch ID: <b>26993</b>	RunNo: <b>36546</b>								
Prep Date: <b>8/15/2016</b>	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1131666</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID <b>LCS-26993</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>26993</b>	RunNo: <b>36546</b>								
Prep Date: <b>8/15/2016</b>	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1131667</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	80	120			

**Qualifiers:**

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- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1608742  
25-Aug-16

Client: APEX TITAN  
Project: MAPL LID 696

Sample ID <b>MB</b>	SampType: <b>mbk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R36501</b>		RunNo: <b>36501</b>							
Prep Date:	Analysis Date: <b>8/12/2016</b>		SeqNo: <b>1130212</b>				Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R36501</b>		RunNo: <b>36501</b>							
Prep Date:	Analysis Date: <b>8/12/2016</b>		SeqNo: <b>1130214</b>				Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.9	90	110			
Bromide	2.4	0.10	2.500	0	96.8	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.8	90	110			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	97.0	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			

**Qualifiers:**

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- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1608742

25-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696

Sample ID: <b>rb4</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>
Client ID: <b>PBW</b>	Batch ID: <b>B36550</b>	RunNo: <b>36550</b>
Prep Date:	Analysis Date: <b>8/17/2016</b>	SeqNo: <b>1131996</b> Units: <b>µg/L</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

**Qualifiers:**

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- E Value above quantitation range
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- P Sample pH Not In Range
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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608742

25-Aug-16

Client: APEX TITAN  
Project: MAPL LID 696

Sample ID	rb4	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	B36550	RunNo:	36550						
Prep Date:		Analysis Date:	8/17/2016	SeqNo:	1131996	Units:	µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,1-Dichloropropene	ND	1.0									
Hexachlorobutadiene	ND	1.0									
2-Hexanone	ND	10									
Isopropylbenzene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Methylene Chloride	ND	3.0									
n-Butylbenzene	ND	3.0									
n-Propylbenzene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
tert-Butylbenzene	ND	1.0									
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	2.0									
Tetrachloroethene (PCE)	ND	1.0									
trans-1,2-DCE	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene (TCE)	ND	1.0									
Trichlorofluoromethane	ND	1.0									
1,2,3-Trichloropropane	ND	2.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	1.5									
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130				
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	70	130				
Surr: Dibromofluoromethane	10		10.00		102	70	130				
Surr: Toluene-d8	10		10.00		101	70	130				

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID:	B36550	RunNo:	36550						
Prep Date:		Analysis Date:	8/16/2016	SeqNo:	1131997	Units:	µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	22	1.0	20.00	0	111	70	130				
Toluene	21	1.0	20.00	0	104	70	130				
Chlorobenzene	21	1.0	20.00	0	103	70	130				

**Qualifiers:**

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

WO#: 1608742  
 25-Aug-16

Client: APEX TITAN  
 Project: MAPL LID 696

Sample ID 100ng ics2	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: B36550		RunNo: 36550							
Prep Date:	Analysis Date: 8/16/2016		SeqNo: 1131997				Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

**Qualifiers:**

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

**Sample Log-In Check List**

Client Name: **APEX AZTEC**

Work Order Number: **1808742**

RcptNo: **1**

Received by/date:

*Jm*

*08/12/16*

Logged By:

**Ashley Gallegos**

**8/12/2016 7:30:00 AM**

*AG*

Completed By:

**Ashley Gallegos**

**8/12/2016 12:28:33 PM**

*AG*

Reviewed By:

*AG*

*08/12/16*

**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: **3**  
 (<2 or >12 unless noted)  
 Adjusted? **NO**  
 Checked by: *Ja*

**Special Handling (if applicable)**

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

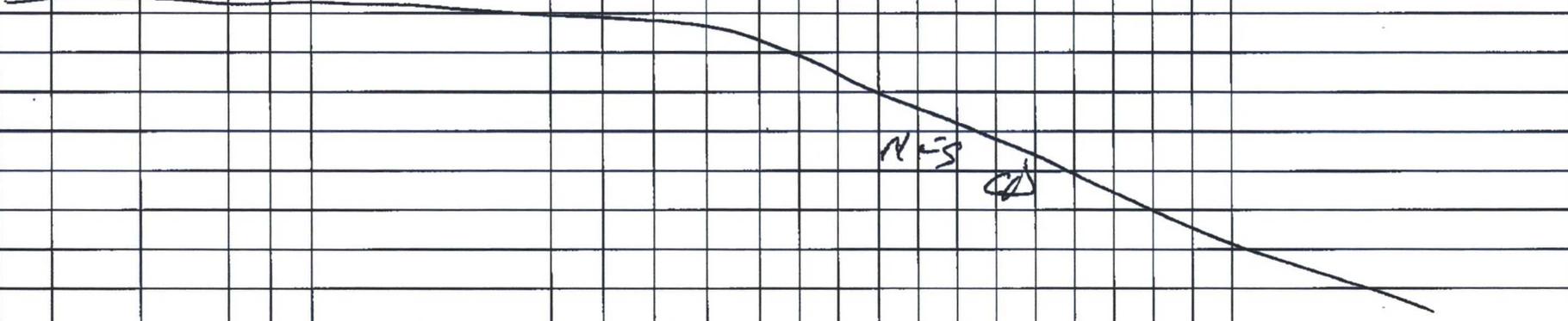
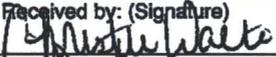
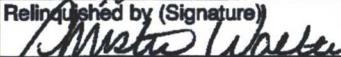
Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Artec N.M.</u>		Laboratory: <u>HAN ENV</u> Address: <u>ABQ N.M.</u> Contact: <u>A. Freeman</u> Phone: _____ PO/SO #: _____				ANALYSIS REQUESTED  ACR & Metals Cations / Anions Vocs 9260 Chloride					Lab use only Due Date: _____  Temp. of coolers when received (C°): <u>4.0-1.0 CF</u> = <u>-3.8</u>				
		Project Manager <u>K. Summers</u>		Sampler's Name <u>Chad D. Aperti</u>							Sampler's Signature 		Page <u>1</u> of <u>1</u>		
Proj. No. <u>735040112192</u>		Project Name <u>MAPL LED 696</u>				No/Type of Containers _____									
Matrix	Date	Time	COED	PAR	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)		
W	8/11/16	1545			H-1 (Pipeline)			3		1		3	1:1:1	1608742-001	
															
Turn around time <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush															
Relinquished by (Signature) 			Date: <u>8-11-16</u>		Time: <u>1637</u>		Received by (Signature) 			Date: <u>8/11/16</u>		Time: <u>1637</u>		NOTES:  <u>Bill Tom Long</u>	
Relinquished by (Signature) 			Date: <u>8/11/16</u>		Time: <u>2020</u>		Received by (Signature) 			Date: <u>8/11/16</u>		Time: <u>0730</u>			
Relinquished by (Signature) _____			Date: _____		Time: _____		Received by (Signature) _____			Date: _____		Time: _____			
Relinquished by (Signature) _____			Date: _____		Time: _____		Received by (Signature) _____			Date: _____		Time: _____			

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



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

August 22, 2016

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

RE: MAPL LID 696 Hydrostatic Test

OrderNo.: 1608B47

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/19/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN **Client Sample ID:** S-1  
**Project:** MAPL LID 696 Hydrostatic Test **Collection Date:** 8/18/2016 12:15:00 PM  
**Lab ID:** 1608B47-001 **Matrix:** MEOH (SOIL) **Received Date:** 8/19/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/19/2016 9:32:37 AM	27071
Surr: DNOP	88.3	70-130		%Rec	1	8/19/2016 9:32:37 AM	27071
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg	1	8/19/2016 12:30:49 PM	27059
Surr: BFB	85.4	68.3-144		%Rec	1	8/19/2016 12:30:49 PM	27059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.026		mg/Kg	1	8/19/2016 12:30:49 PM	27059
Toluene	ND	0.052		mg/Kg	1	8/19/2016 12:30:49 PM	27059
Ethylbenzene	ND	0.052		mg/Kg	1	8/19/2016 12:30:49 PM	27059
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2016 12:30:49 PM	27059
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	8/19/2016 12:30:49 PM	27059

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

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

**Hall Environmental Analysis Laboratory, Inc.**

**Analytical Report**  
 Lab Order 1608B47  
 Date Reported: 8/22/2016

**CLIENT:** APEX TITAN **Client Sample ID:** S-2  
**Project:** MAPL LID 696 Hydrostatic Test **Collection Date:** 8/18/2016 12:20:00 PM  
**Lab ID:** 1608B47-002 **Matrix:** MEOH (SOIL) **Received Date:** 8/19/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/19/2016 9:54:05 AM	27071
Surr: DNOP	91.5	70-130		%Rec	1	8/19/2016 9:54:05 AM	27071
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	8/19/2016 12:54:15 PM	27059
Surr: BFB	83.5	68.3-144		%Rec	1	8/19/2016 12:54:15 PM	27059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	8/19/2016 12:54:15 PM	27059
Toluene	ND	0.041		mg/Kg	1	8/19/2016 12:54:15 PM	27059
Ethylbenzene	ND	0.041		mg/Kg	1	8/19/2016 12:54:15 PM	27059
Xylenes, Total	ND	0.082		mg/Kg	1	8/19/2016 12:54:15 PM	27059
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	1	8/19/2016 12:54:15 PM	27059

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-3  
 Project: MAPL LID 696 Hydrostatic Test Collection Date: 8/18/2016 12:25:00 PM  
 Lab ID: 1608B47-003 Matrix: MEOH (SOIL) Received Date: 8/19/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/19/2016 9:24:28 AM	27071
Surr: DNOP	80.2	70-130		%Rec	1	8/19/2016 9:24:28 AM	27071
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	8/19/2016 1:17:44 PM	27059
Surr: BFB	86.8	68.3-144		%Rec	5	8/19/2016 1:17:44 PM	27059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.082		mg/Kg	5	8/19/2016 1:17:44 PM	27059
Toluene	ND	0.16		mg/Kg	5	8/19/2016 1:17:44 PM	27059
Ethylbenzene	ND	0.16		mg/Kg	5	8/19/2016 1:17:44 PM	27059
Xylenes, Total	ND	0.33		mg/Kg	5	8/19/2016 1:17:44 PM	27059
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	5	8/19/2016 1:17:44 PM	27059

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-4  
 Project: MAPL LID 696 Hydrostatic Test Collection Date: 8/18/2016 12:30:00 PM  
 Lab ID: 1608B47-004 Matrix: MEOH (SOIL) Received Date: 8/19/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/19/2016 9:46:18 AM	27071
Surr: DNOP	81.9	70-130		%Rec	1	8/19/2016 9:46:18 AM	27071
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/19/2016 1:41:10 PM	27059
Surr: BFB	85.0	68.3-144		%Rec	1	8/19/2016 1:41:10 PM	27059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	8/19/2016 1:41:10 PM	27059
Toluene	ND	0.046		mg/Kg	1	8/19/2016 1:41:10 PM	27059
Ethylbenzene	ND	0.046		mg/Kg	1	8/19/2016 1:41:10 PM	27059
Xylenes, Total	ND	0.091		mg/Kg	1	8/19/2016 1:41:10 PM	27059
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	1	8/19/2016 1:41:10 PM	27059

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

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

**Hall Environmental Analysis Laboratory, Inc.**

**Analytical Report**

Lab Order 1608B47

Date Reported: 8/22/2016

**CLIENT:** APEX TITAN

**Client Sample ID:** S-5

**Project:** MAPL LID 696 Hydrostatic Test

**Collection Date:** 8/18/2016 12:35:00 PM

**Lab ID:** 1608B47-005

**Matrix:** MEOH (SOIL)

**Received Date:** 8/19/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/19/2016 2:34:54 PM	27071
Surr: DNOP	88.4	70-130		%Rec	1	8/19/2016 2:34:54 PM	27071
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	8/19/2016 2:04:36 PM	27059
Surr: BFB	84.1	68.3-144		%Rec	1	8/19/2016 2:04:36 PM	27059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	8/19/2016 2:04:36 PM	27059
Toluene	ND	0.040		mg/Kg	1	8/19/2016 2:04:36 PM	27059
Ethylbenzene	ND	0.040		mg/Kg	1	8/19/2016 2:04:36 PM	27059
Xylenes, Total	ND	0.080		mg/Kg	1	8/19/2016 2:04:36 PM	27059
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	8/19/2016 2:04:36 PM	27059

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1608B47

22-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696 Hydrostatic Test

Sample ID	<b>LCS-27071</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>27071</b>	RunNo:	<b>36619</b>					
Prep Date:	<b>8/19/2016</b>	Analysis Date:	<b>8/19/2016</b>	SeqNo:	<b>1134501</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.6	62.6	124			
Surr: DNOP	4.1		5.000		81.2	70	130			

Sample ID	<b>MB-27071</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>27071</b>	RunNo:	<b>36619</b>					
Prep Date:	<b>8/19/2016</b>	Analysis Date:	<b>8/19/2016</b>	SeqNo:	<b>1134502</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		85.8	70	130			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1608B47  
22-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696 Hydrostatic Test

Sample ID: <b>MB-27059</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>27059</b>	RunNo: <b>36640</b>								
Prep Date: <b>8/18/2016</b>	Analysis Date: <b>8/19/2016</b>	SeqNo: <b>1135123</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.2	68.3	144			

Sample ID: <b>LCS-27059</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>27059</b>	RunNo: <b>36640</b>								
Prep Date: <b>8/18/2016</b>	Analysis Date: <b>8/19/2016</b>	SeqNo: <b>1135124</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.2	80	120			
Surr: BFB	930		1000		93.3	68.3	144			

**Qualifiers:**

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

# QC SUMMARY REPORT

H II Environmental Analysis Laboratory, Inc.

WO#: 1608B47

22-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696 Hydrostatic Test

Sample ID	<b>MB-27059</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>27059</b>	RunNo:	<b>36640</b>					
Prep Date:	<b>8/18/2016</b>	Analysis Date:	<b>8/19/2016</b>	SeqNo:	<b>1135145</b>	Units:	<b>mg/Kg</b>			
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	0.98		1.000		98.2	80	120			

Sample ID	<b>LCS-27059</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>27059</b>	RunNo:	<b>36640</b>					
Prep Date:	<b>8/18/2016</b>	Analysis Date:	<b>8/19/2016</b>	SeqNo:	<b>1135146</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	1.0	0.025	1.000	0	101	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	1.0	0.050	1.000	0	103	82.8	121			
Xylenes, Total	3.1	0.10	3.000	0	103	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

**Qualifiers:**

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

**Sample Log-In Check List**

Client Name: **APEX AZTEC**

Work Order Number: **1608B47**

RcptNo: **1**

Received by/date:	<i>[Signature]</i>	<i>08/19/16</i>
Logged By:	<b>Ashley Gallegos</b>	<b>8/19/2016 7:30:00 AM</b>
Completed By:	<b>Ashley Gallegos</b>	<b>8/19/2016 8:26:25 AM</b>
Reviewed By:	<i>[Signature]</i>	<i>08/19/16</i>

**Chain of Custody**

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

**Log**

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

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

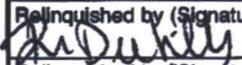
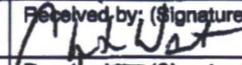
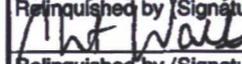
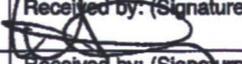
Person Notified: _____	Date: _____
By Whom: _____	Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding: _____	
Client Instructions: _____	

17. Additional remarks:

**18. Cooler Information**

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

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall</u> Address: <u>ABQ, NM</u>		ANALYSIS REQUESTED <div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;">                     5021 BTEX                      8015 TPH, PCB, DRO                 </div>										Lab use only Due Date:				
		Contact: <u>A. Freeman</u> Phone:												Temp. of coolers when received (C°): <u>2.1</u>				
Project Manager <u>R. Summers</u>		PO/SO #: <u>725040112192</u>		Page <u>1</u> of <u>1</u>														
Sampler's Name <u>Ranee Deechilly</u>		Sampler's Signature 		Lab Sample ID (Lab Use Only)														
Proj. No. <u>725040112192</u>		Project Name <u>MAPL LID LAB Hydrostatic Test</u>		No/Type of Containers														
Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)					
S	8/18/16	1215	X		S-1								X	X				11208B47-001
↓		1220	X		S-2								X	X				-002
↓		1225	X		S-3								X	X				-003
↓		1230	X		S-4								X	X				-004
✓		1235	X		S-5								X	X				-005
<del>NFS PD</del>																		
Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush																		
Relinquished by (Signature) 				Date: <u>8/18/16</u> Time: <u>1600</u>		Received by (Signature) 				Date: <u>8/18/16</u> Time: <u>1600</u>		NOTES: <u>Bill to Apex Corporate rate</u>  <u>Same DAY</u>						
Relinquished by (Signature) 				Date: <u>8/18/16</u> Time: <u>2040</u>		Received by (Signature) 				Date: <u>08/19/16</u> Time: <u>0730</u>								
Relinquished by (Signature)				Date:		Received by (Signature)				Date:    Time:								
Relinquished by (Signature)				Date:		Received by (Signature)				Date:    Time:								
Matrix Container    WW - Wastewater    W - Water    S - Soil    SD - Solid    L - Liquid    A - Air Bag    C - Charcoal tube    SL - sludge    O - Oil VOA - 40 ml vial    A/G - Amber / Or Glass 1 Liter    250 ml - Glass wide mouth    P/O - Plastic or other																		



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

August 22, 2016

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Suite A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX (214) 350-2914

RE: MAPL LID 696 Hydrostatic Test

OrderNo.: 1608B46

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/19/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN **Client Sample ID:** SP-1  
**Project:** MAPL LID 696 Hydrostatic Test **Collection Date:** 8/18/2016 12:50:00 PM  
**Lab ID:** 1608B46-001 **Matrix:** MEOH (SOIL) **Received Date:** 8/19/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/19/2016 2:13:06 PM	27071
Surr: DNOP	87.3	70-130		%Rec	1	8/19/2016 2:13:06 PM	27071
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	8/19/2016 5:35:48 PM	27059
Surr: BFB	82.9	68.3-144		%Rec	1	8/19/2016 5:35:48 PM	27059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	8/19/2016 5:35:48 PM	27059
Toluene	ND	0.041		mg/Kg	1	8/19/2016 5:35:48 PM	27059
Ethylbenzene	ND	0.041		mg/Kg	1	8/19/2016 5:35:48 PM	27059
Xylenes, Total	ND	0.083		mg/Kg	1	8/19/2016 5:35:48 PM	27059
Surr: 4-Bromofluorobenzene	96.4	80-120		%Rec	1	8/19/2016 5:35:48 PM	27059

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1608B46  
22-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696 Hydrostatic Test

Sample ID	LCS-27071		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	27071		RunNo:	36619				
Prep Date:	8/19/2016		Analysis Date:	8/19/2016		SeqNo:	1134501		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	90.6	62.6	124				
Surr: DNOP	4.1		5.000		81.2	70	130				

Sample ID	MB-27071		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	27071		RunNo:	36619				
Prep Date:	8/19/2016		Analysis Date:	8/19/2016		SeqNo:	1134502		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	8.6		10.00		85.8	70	130				

**Qualifiers:**

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

**QC SUMMARY REPORT**  
**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1608B46  
 22-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696 Hydrostatic Test

Sample ID <b>MB-27059</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>27059</b>	RunNo: <b>36640</b>								
Prep Date: <b>8/18/2016</b>	Analysis Date: <b>8/19/2016</b>	SeqNo: <b>1135123</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.2	68.3	144			

Sample ID <b>LCS-27059</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>27059</b>	RunNo: <b>36640</b>								
Prep Date: <b>8/18/2016</b>	Analysis Date: <b>8/19/2016</b>	SeqNo: <b>1135124</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.2	80	120			
Surr: BFB	930		1000		93.3	68.3	144			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1608B46  
22-Aug-16

**Client:** APEX TITAN  
**Project:** MAPL LID 696 Hydrostatic Test

Sample ID	<b>MB-27059</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>27059</b>	RunNo:	<b>36640</b>					
Prep Date:	<b>8/18/2016</b>	Analysis Date:	<b>8/19/2016</b>	SeqNo:	<b>1135145</b>	Units:	<b>mg/Kg</b>			
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	0.98		1.000		98.2	80	120			

Sample ID	<b>LCS-27059</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>27059</b>	RunNo:	<b>36640</b>					
Prep Date:	<b>8/18/2016</b>	Analysis Date:	<b>8/19/2016</b>	SeqNo:	<b>1135146</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	1.0	0.050	1.000	0	103	82.8	121			
Xylenes, Total	3.1	0.10	3.000	0	103	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

**Qualifiers:**

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



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 Titan

Work Order Number: 1608B46

RcptNo: 1

Received by/date: [Signature] 08/19/16

Logged By: Ashley Gallegos 8/19/2016 7:30:00 AM [Signature]

Completed By: Ashley Gallegos 8/19/2016 8:17:43 AM [Signature]

Reviewed By: [Signature] 08/19/16

### 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? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

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

### Special Handling (if applicable)

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

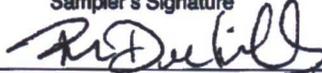
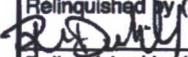
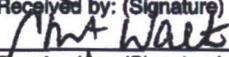
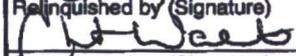
Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

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

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall</u> Address: <u>ABQ, NM</u>		ANALYSIS REQUESTED <div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;">                     8021 BTEX                      8015 TPH GRG / DRG                 </div>										Lab use only Due Date:	
		Contact: <u>A. Freeman</u> Phone:												Temp. of coolers when received (C°): <u>2.1</u>	
Project Manager <u>K. Summers</u>		PO/SO #: <u>725040112192</u>		Page <u>1</u> of <u>1</u>											
Sampler's Name <u>Ranee Diechilly</u>		Sampler's Signature 		Lab Sample ID (Lab Use Only) <u>1608B46-001</u>											
Proj. No. <u>725040112192</u>		Project Name <u>MAPL LD 696 Hydrostatic Test</u>												No/Type of Containers	
Matrix	Date	Time	C o m p	G r a b	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1 L	250 ml	Glass Jar	P/O			
S	8/18/16	1250	X		SP-1								XX		
<del>                     NPS                      RA                 </del>															
Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush															
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:		NOTES: <u>Bill to Apex Corporate rate</u>  <u>Same Day</u>	
			8/18/16		1600					8/18/16		1600			
			8/19/16		2042					08/19/16		0730			
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:			
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:			

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