3R-1011

Release Report/ General Correspondence

Lateral 2A-3

Date:2/10/14

(40)

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Lateral 2A-3**	Facility Type: Natural Gas Gathering Line

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

OIL CONS. DIV DIST. 3
JUN 09 2014

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	**13**	**27N**	**10W**	**754**		**1046**		**San Juan**

Latitude 36.55143 **Longitude** -107.88836

NATURE OF RELEASE

Type of Release: **Natural Gas and Natural Gas Liquids**	Volume of Release: **Unknown amount of gas loss; Estimated 2-3 bbls of fluids**	Volume Recovered: **Unknown**
Source of Release: Equipment Damage/Internal Corrosion	Date and Hour of Occurrence: **2/10/2014 @ 4:00 p.m.**	Date and Hour of Discovery: **2/10/2014 @ 4:00 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* A release was discovered on the Lateral 2A-3 natural gas gathering line. The line was blown down, taken out of service and LOTO (lock out tag out) was applied. An initial area of approximately 8 feet by 4 feet was impacted by a condensate/water mix. Repairs and remediation were completed on February 19, 2014.

Describe Area Affected and Cleanup Action Taken.* Repairs and remediation were completed on February 19, 2014. The final excavation was approximately thirteen (13) feet long by seven (7) feet wide ranging from four (4) to five (5) feet below ground surface. Approximately forty (40) cubic yard for hydrocarbon impacted soil was transported to an approved NMOCD land farm facility for proper disposal. A third party environmental corrective action report is included with this "final" c-141.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION
Printed Name: Jon Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 6/10/14 Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval: Attached ☐
Date: 6-3-2014 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

NCS 1416150725

410

APEX

CORRECTIVE ACTION REPORT

Property:

Lateral 2A-3 Pipeline Release
NW 1/4, S27 T27N R10W
San Juan County, New Mexico

May 6, 2014
Apex Project No. 7030414G005

Prepared for:

Enterprise Products Operating LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Tom Long

Prepared by:

Kyle Summers, C.P.G.
Branch Manager

B. Chris Mitchell, P.G.
Principal Geoscientist

TABLE OF CONTENTS

LIST OF APPENDICES

CORRECTIVE ACTION REPORT

Lateral 2A-3 Pipeline Release
NW 1/4, S27 T27N R10W
San Juan County, New Mexico

Apex Project No. 7030414G005

1.0 INTRODUCTION

1.1 Site Description & Background

The lateral 2A-3 pipeline release site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 27 in Township 27 North and Range 10 West in rural San Juan County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located at the edge of a lease road, surrounded by native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from north to south.

On February 14th, 2014, Enterprise shut in the lateral 2A-3 pipeline and initiated excavation activities at the Site in an attempt to locate and repair a subsurface leak. The leak was subsequently identified and repaired. An unknown quantity of condensate/water mixture was potentially released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface. Minor liquid evidence was also visible at the surface.

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

1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of chemicals 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* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

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

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

*Based on anticipated groundwater depth of <50 feet below grade surface (bgs).

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

- The Site is 260 feet from the upper East Fork of Kutz Canyon wash. However, the wash in this area appears to only convey water during significant rain events.
- No water wells were identified on the Office of the State Engineer website database within one mile of the Site. However, the proximity of the site to the dry wash could indicate a potential depth to water of less than 50 feet bgs, resulting in a ranking of "20" for depth to groundwater.
- No water sources were identified within the search radius.

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On February 14th, 2014, Enterprise shut in the lateral 2A-3 pipeline and initiated excavation activities at the Site to locate and repair a potential leak. The release was primarily of dry natural gas, but evidence of a short liquid flow path was seen on the surface above the release point. Subsequent to the completion of pipeline repairs, the hydrocarbon affected soils were excavated from the Site. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers and Aaron Bryant, Apex environmental professionals, provided environmental support. On February 19th, 2014, subsequent to the receipt of the initial laboratory analytical results, the Site was over-excavated approximately two (2) additional feet at the south wall due to elevated COCs in an initial soil sample (S-6) result. The south wall was then re-sampled (S-8).

The total depth of the final excavation ranged from 4 feet bgs to approximately 5 feet bgs in the release footprint. The overall average surface expression of the excavation measured approximately 13 feet long by 7 feet wide.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty-sands.

A total of approximately 40 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

During excavation activities, air in the breathing zone was monitored to ensure that the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 200 parts per million (ppm) Time Weighted Average (TWA) for an 8-hour work day was not exceeded. Additionally, Enterprise monitored the excavation for explosive atmosphere conditions and oxygen deficiency prior to any entries into the excavation.

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

3.2 Soil Sampling Program

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

Apex's soil sampling program included the collection of seven (7) final confirmation samples (S-1 through S-5, S-7, and S-8) from the resulting excavation for laboratory analysis. Soil sample S-6 was removed by excavation and re-sampled as final confirmation sample S-9. Figure 3 depicts the approximate location of the excavated areas 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 labels, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for 24-hr rush analysis.

3.3 Laboratory Analytical Methods

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

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

4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 *Remediation*. 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 reporting limits (RLs) associated with the final confirmation samples collected from the excavated area to the OCD *Remediation Action Levels* for sites having a total ranking score of "30". Soil associated with confirmation sample S-6 was removed by excavation and is not included in the following discussion.

- The laboratory analyses of confirmation samples collected from soils remaining in place do not indicate benzene concentrations above laboratory reporting limits, which are below the OCD RAL.

- The laboratory analyses of the confirmation samples collected from soils remaining in place do not indicate total BTEX concentrations above the OCD RALs.

- The laboratory analyses of the confirmation sample collected from soils remaining in place do not indicate TPH GRO/DRO concentrations above the OCD RAL of 100 mg/Kg for a Site ranking of "30".

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

5.0 FINDINGS AND RECOMMENDATIONS

The lateral 2A-3 pipeline release site is located within the Enterprise pipeline ROW in the NW ¼ of Section 27 in Township 27 North and Range 10 West in rural San Juan County, New Mexico. The Site is located at the edge of a lease road, surrounded by native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from north to south.

During February, 2014, Enterprise shut in the lateral 2A-3 pipeline and initiated excavation activities at the Site to locate and repair a potential leak. The release was primarily of dry natural gas however some evidence of pooling liquids was seen on the surface near the release point. Subsequent to the pipeline repair activities, hydrocarbon affected soils were excavated at the Site.

- 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 total depth of the final excavation ranged from 4 feet bgs to approximately 5 feet bgs in the release footprint. The overall average surface expression of the excavation measured approximately 13 feet long by 7 feet wide.

- Prior to backfilling, seven (7) final confirmation samples were collected from the resulting excavation for laboratory analyses. Based on analytical results, soils remaining in place do not exhibit COC concentrations above the OCD *RALs* for a Site ranking of "30".

- A total of approximately 40 cubic yards of hydrocarbon affected soils were transported to the Enivirotech landfarm near Hilltop, NM for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to the surrounding grade.

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

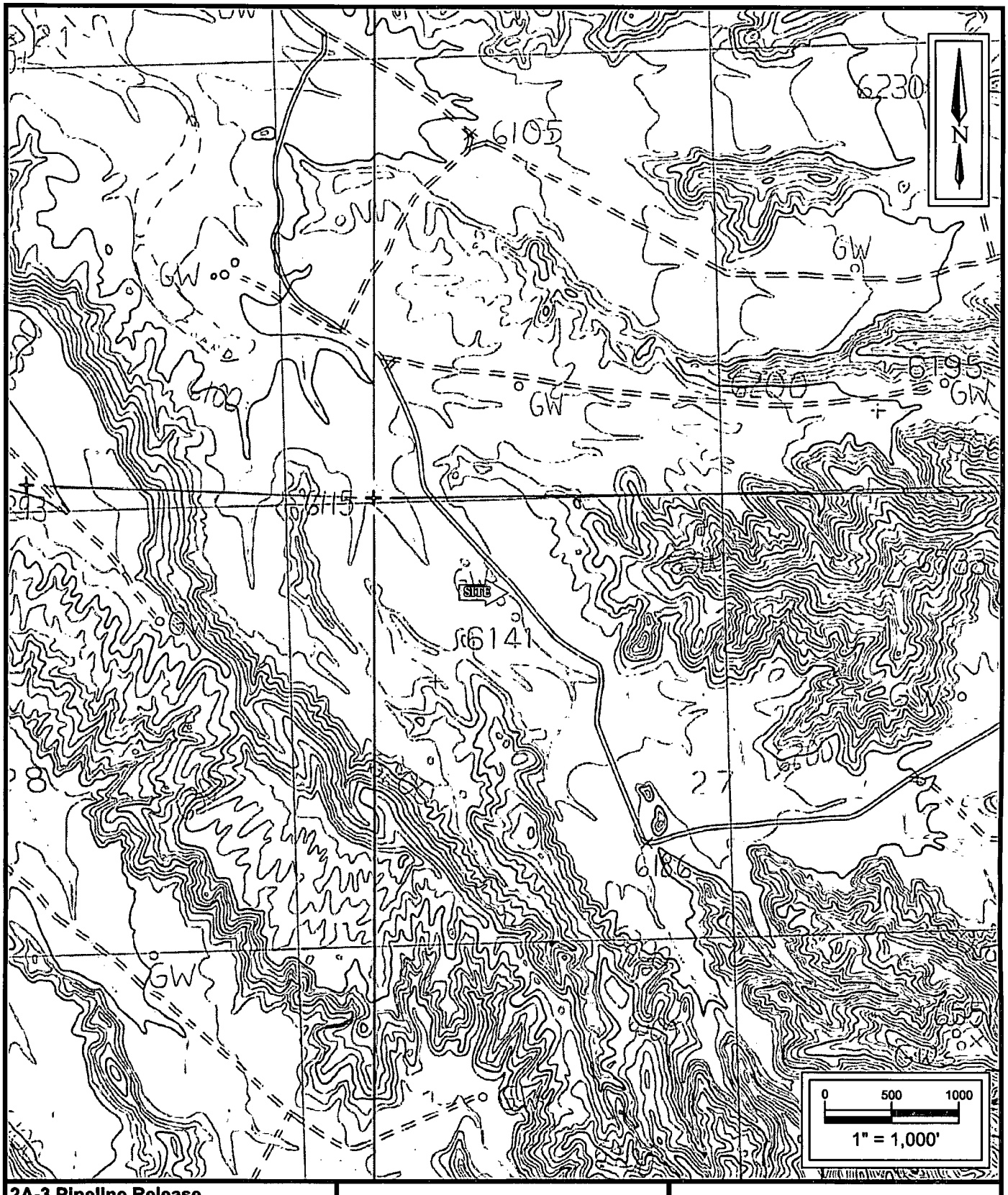
6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

Apex TITAN's (Apex's) services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder.

Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

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

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



2A-3 Pipeline Release
NW¼ S27 T27N R10W
Rural San Juan County, NM
36.55143N, -107.88836W

Project No. 7030414G005.001

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

FIGURE 1
Topographic Map
East Fork Kutz Canyon, NM Quadrangle
1985

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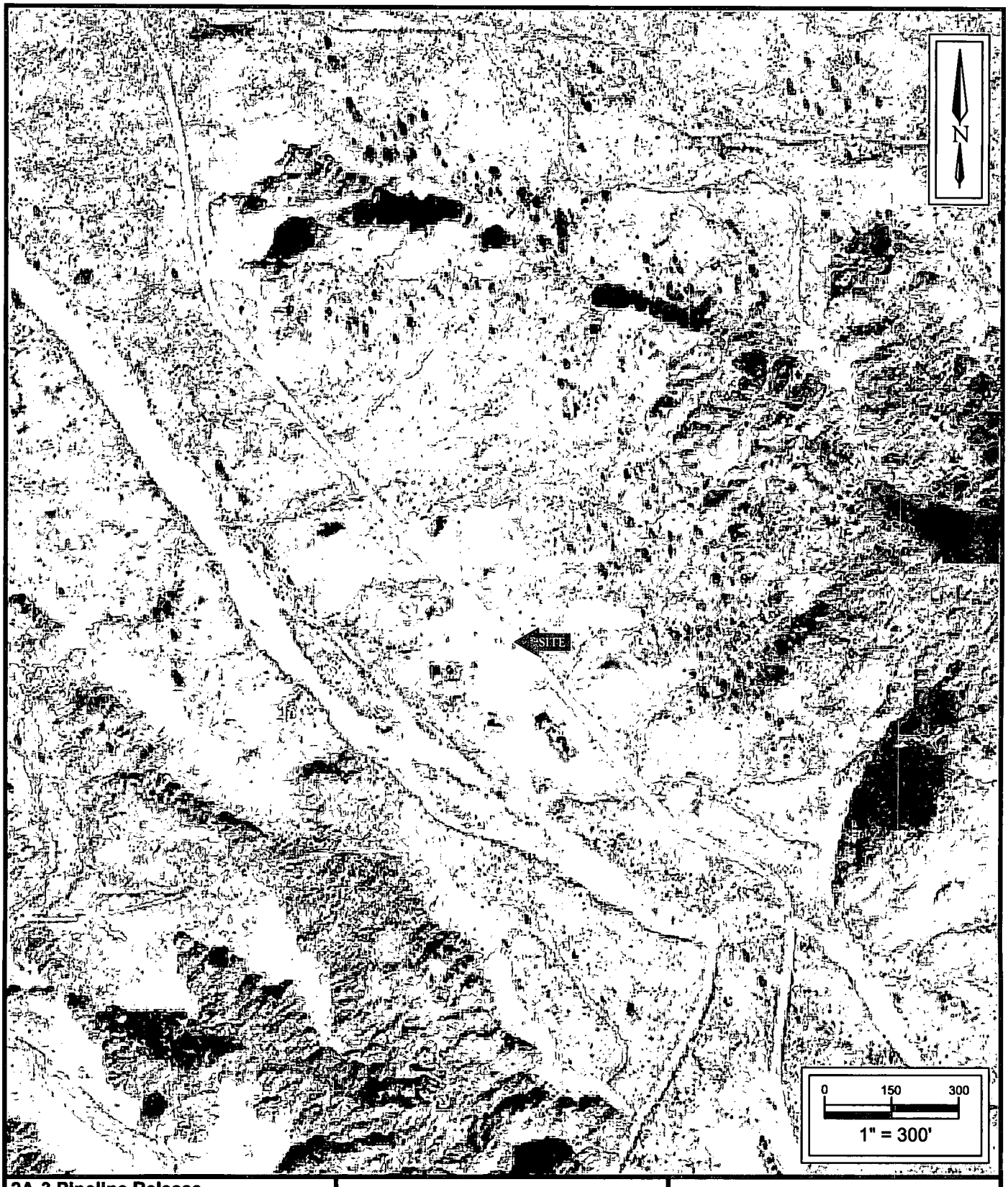

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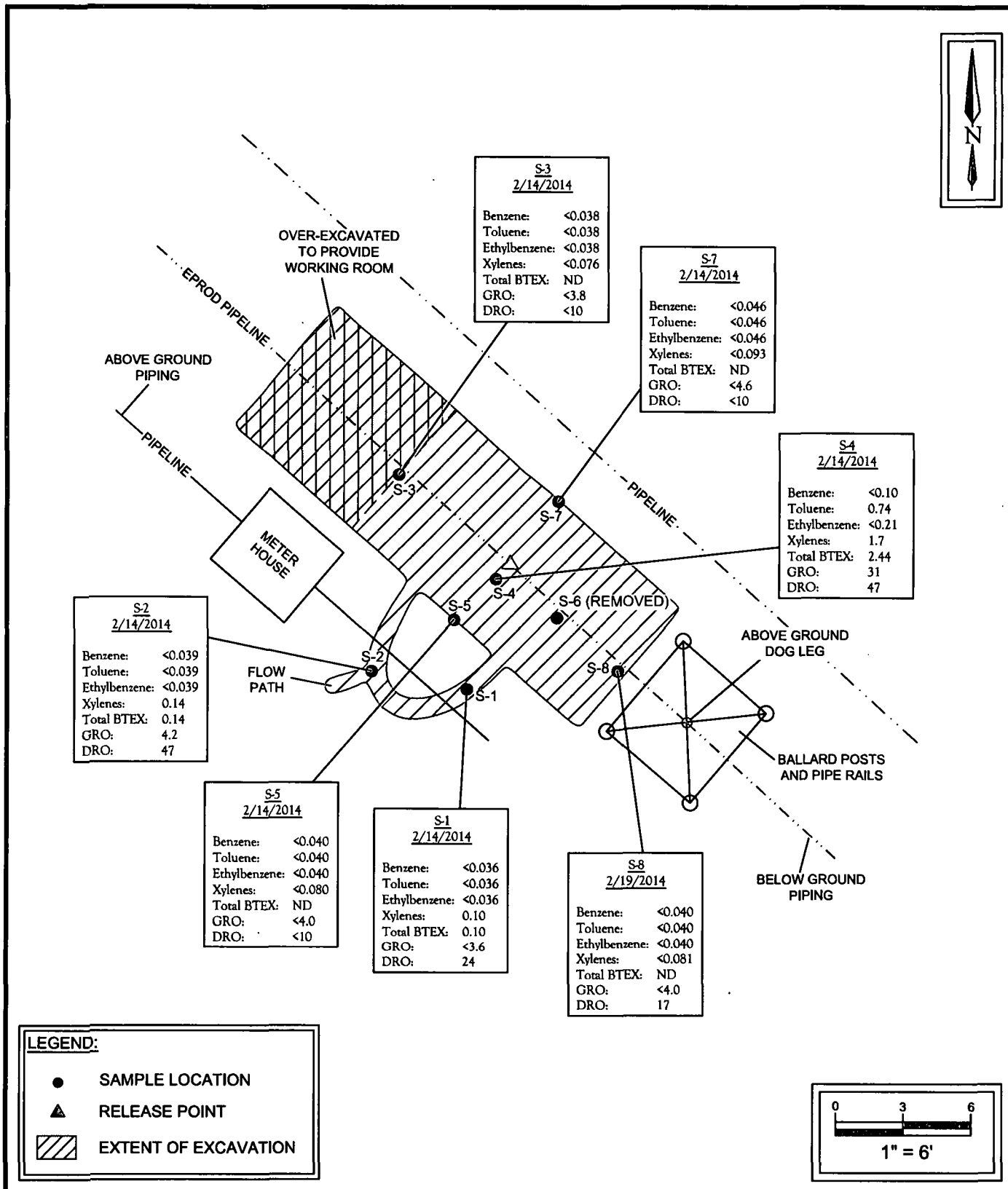
FIGURE 2
Site Vicinity Map
2013 Aerial Photograph

H:\Drafting\New Mexico 04\2014\7030414G005\Figure 2.dwg 04/17/14



2A-3 Pipeline Release
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FIGURE 3
Site Map with Sample Locations

Z:\Houston South\Drafting\New Mexico 04\2014\7030414G005\Figure 3.dwg 05/07/14

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

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

97057-0623

Form C-138
Revised 08/01/11

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401 **Paykey Code: RB21200**

2. Originating Site: 2A-3 Natural Gas Gathering Line

Feb '14

3. Location of Material (Street Address, City, State or ULSTR):
Unit D Sec 27 T 27N R 10W, GPS 36.551444, -107.888381 San Juan County, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.
Estimated Volume 40 yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) 40 (yd^3) / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

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

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

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

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long 2-19-14, representative for Enterprise Field Services, LLC authorize ENVIROTECH to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, [signature], representative for Envirotech do hereby certify that
Representative/Agent Signature
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter: ~~IMI, WestStates or~~ unknown trucking company on OCD approved haulers list. JP Trucking, GMS

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011**

Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

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

PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 2/19/14
SIGNATURE: [signature] TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

envirotech

Bill of Lading

MANIFEST # 45989

DATE 2-19-14 JOB # 97057-0623

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	ENTERPRISE 2A-3 NATURAL GAS Gathering Station	LF II-5	CONT SOIL	E-29	10	—	EMS	02	10:30	Erick Seeley
2	"	"	"	E-29	10	—	EMS	02	13:45	Erick Seeley
3	"	"	"	E-29	10	—	EMS	01	15:45	Erick Seeley
					30					

RESULTS:			LANDFARM EMPLOYEE:	NOTES:
<291	CHLORIDE TEST	1	EZ	
	PAINT FILTER TEST	1	Certification of above receival & placement	

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. EMS USA NAME Erick Seeley SIGNATURE Erick Seeley

COMPANY CONTACT Mike Sanchez PHONE (505) 793-44-26 DATE 2-19-14

Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer

envirotech

Bill of Lading

MANIFEST # 45993

DATE 2-19-14 JOB # 97057-0623

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	E-tech	Enterprise 24-3 natural Gas Gathering Station	Clean Fill	—	10	—	JP Trucking	1	13:30	John Parks
					10					

RESULTS:			LANDFARM EMPLOYEE:	NOTES:
✓	CHLORIDE TEST	✓	EL	
✓	PAINT FILTER TEST	✓	Certification of above receival & placement	

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. J.P. Trucking NAME John Parks SIGNATURE John Parks

COMPANY CONTACT John Parks PHONE 505-330-4261 DATE 2-19-14

Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer

envirotech

Bill of Lading

MANIFEST # 45994

DATE 2-19-14 JOB # 97057-0623

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	E-Tech	Enterprise 2A-3 Ignacio Gas Gathering Station	Clean Fill	—	10	—	EMS	01	13:45	Erick Seeley
					10					

RESULTS:

/	CHLORIDE TEST	/
/	PAINT FILTER TEST	/

LANDFARM EMPLOYEE: EL

Certification of above receival & placement

NOTES:

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. EMS USA NAME Erick Seeley SIGNATURE Erick Seeley

COMPANY CONTACT Mike Sanchez PHONE 505 793-4424 DATE 2-19-14

Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer

envirotech

Bill of Lading

MANIFEST # 45995

DATE 2-19-14 JOB # 97057-0623

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise 2A-3 Natural Gas Gathering Station	FF-5	cont soil	E-29	10	—	JP Trucking	1	15:50	John Parks
					10					

RESULTS:

< 291	CHLORIDE TEST	1
	PAINT FILTER TEST	1

LANDFARM EMPLOYEE: Dave Lo EL

Certification of above receival & placement

NOTES:

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. J.P. Trucking NAME John Parks SIGNATURE John Parks

COMPANY CONTACT John Parks PHONE 505-330-4281 DATE 2-19-14

Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer

APEX

SITE PHOTOGRAPHS

Photograph 1

Initial excavation activities.

Photograph 2

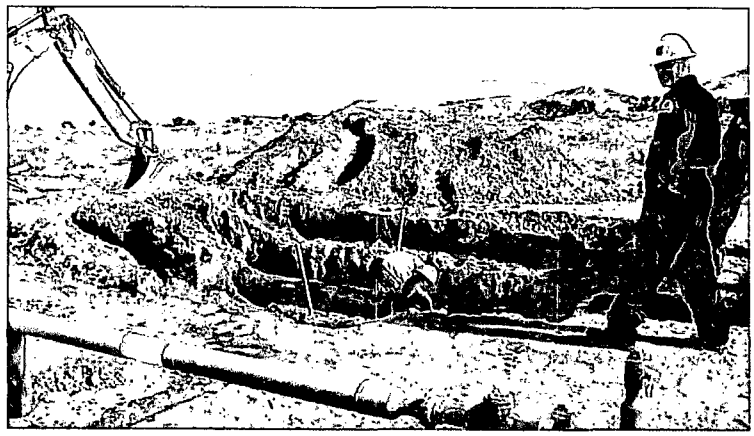
Leak is located after using pressurized nitrogen.

Photograph 3

Pipeline is cleaned for repair.

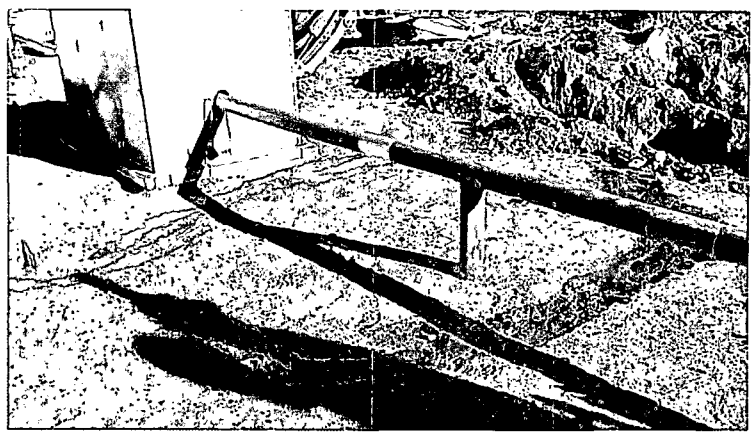
Photograph 4

General overview of the excavation facing north.



Photograph 5

Surface evidence of small fluid release onto frozen ground.



Photograph 6

General view of surface release area after removal of affected soils by hand tools.

APEX

TABLE 1
2A-3 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 Entergy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Confirmation Samples for Soils which were Removed by Excavation									
S-6	2/14/2014	3-4	2.6	27	8.7	80	**118.3**	**1500**	**2400**
Final Confirmation Samples									
S-1	2/14/2014	0.5	<0.036	<0.036	<0.036	0.10	0.10	<3.6	24
S-2	2/14/2014	0.5	<0.039	<0.039	<0.039	0.14	0.14	4.2	47
S-3	2/14/2014	3-4	<0.038	<0.038	<0.038	<0.076	ND	<3.8	<10
S-4	2/14/2014	5.5	<0.10	0.74	<0.21	1.7	2.44	31	47
S-5	2/14/2014	3-4	<0.040	<0.040	<0.040	<0.080	ND	<4.0	<10
S-7	2/14/2014	3-4	<0.046	<0.046	<0.046	<0.093	ND	<4.6	<10
S-8	2/19/2014	3-5	<0.040	<0.040	<0.040	<0.081	ND	<4.0	17

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

NE = Not Established

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 18, 2014

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

RE: 2A-3 OrderNo.: 1402575

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 2/15/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1402575**
Date Reported: **2/18/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Client Sample ID: S-1
Project: 2A-3
Collection Date: 2/14/2014 9:30:00 AM
Lab ID: 1402575-001
Matrix: MEOH (SOIL)
Received Date: 2/15/2014 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	24	10		mg/Kg	1	2/17/2014 12:22:25 PM	11738
Surr: DNOP	97.2	66-131		%REC	1	2/17/2014 12:22:25 PM	11738
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	2/17/2014 11:23:41 AM	R16782
Surr: BFB	90.4	74.5-129		%REC	1	2/17/2014 11:23:41 AM	R16782
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.036		mg/Kg	1	2/17/2014 11:23:41 AM	R16782
Toluene	ND	0.036		mg/Kg	1	2/17/2014 11:23:41 AM	R16782
Ethylbenzene	ND	0.036		mg/Kg	1	2/17/2014 11:23:41 AM	R16782
Xylenes, Total	0.10	0.071		mg/Kg	1	2/17/2014 11:23:41 AM	R16782
Surr: 4-Bromofluorobenzene	95.3	80-120		%REC	1	2/17/2014 11:23:41 AM	R16782

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Client Sample ID: S-2
Project: 2A-3
Collection Date: 2/14/2014 9:40:00 AM
Lab ID: 1402575-002
Matrix: MEOH (SOIL)
Received Date: 2/15/2014 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	47	10		mg/Kg	1	2/17/2014 12:44:34 PM	11738
Surr: DNOP	95.9	66-131		%REC	1	2/17/2014 12:44:34 PM	11738
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	4.2	3.9		mg/Kg	1	2/17/2014 11:52:14 AM	R16782
Surr: BFB	103	74.5-129		%REC	1	2/17/2014 11:52:14 AM	R16782
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.039		mg/Kg	1	2/17/2014 11:52:14 AM	R16782
Toluene	ND	0.039		mg/Kg	1	2/17/2014 11:52:14 AM	R16782
Ethylbenzene	ND	0.039		mg/Kg	1	2/17/2014 11:52:14 AM	R16782
Xylenes, Total	0.14	0.078		mg/Kg	1	2/17/2014 11:52:14 AM	R16782
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	2/17/2014 11:52:14 AM	R16782

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Client Sample ID: S-3
Project: 2A-3
Collection Date: 2/14/2014 9:50:00 AM
Lab ID: 1402575-003
Matrix: MEOH (SOIL)
Received Date: 2/15/2014 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/17/2014 1:06:42 PM	11738
Surr: DNOP	82.2	66-131		%REC	1	2/17/2014 1:06:42 PM	11738
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	2/17/2014 3:12:15 PM	R16782
Surr: BFB	83.3	74.5-129		%REC	1	2/17/2014 3:12:15 PM	R16782
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.038		mg/Kg	1	2/17/2014 3:12:15 PM	R16782
Toluene	ND	0.038		mg/Kg	1	2/17/2014 3:12:15 PM	R16782
Ethylbenzene	ND	0.038		mg/Kg	1	2/17/2014 3:12:15 PM	R16782
Xylenes, Total	ND	0.076		mg/Kg	1	2/17/2014 3:12:15 PM	R16782
Surr: 4-Bromofluorobenzene	89.7	80-120		%REC	1	2/17/2014 3:12:15 PM	R16782

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Client Sample ID: S-4
Project: 2A-3
Collection Date: 2/14/2014 10:00:00 AM
Lab ID: 1402575-004
Matrix: MEOH (SOIL)
Received Date: 2/15/2014 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	47	10		mg/Kg	1	2/17/2014 1:28:46 PM	11738
Surr: DNOP	101	66-131		%REC	1	2/17/2014 1:28:46 PM	11738
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	31	21		mg/Kg	5	2/17/2014 12:49:16 PM	R16782
Surr: BFB	109	74.5-129		%REC	5	2/17/2014 12:49:16 PM	R16782
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.10		mg/Kg	5	2/17/2014 12:49:16 PM	R16782
Toluene	0.74	0.21		mg/Kg	5	2/17/2014 12:49:16 PM	R16782
Ethylbenzene	ND	0.21		mg/Kg	5	2/17/2014 12:49:16 PM	R16782
Xylenes, Total	1.7	0.41		mg/Kg	5	2/17/2014 12:49:16 PM	R16782
Surr: 4-Bromofluorobenzene	95.8	80-120		%REC	5	2/17/2014 12:49:16 PM	R16782

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Client Sample ID: S-5
Project: 2A-3
Collection Date: 2/14/2014 10:10:00 AM
Lab ID: 1402575-005
Matrix: MEOH (SOIL)
Received Date: 2/15/2014 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/17/2014 12:01:37 PM	11738
Surr: DNOP	101	66-131		%REC	1	2/17/2014 12:01:37 PM	11738
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	2/17/2014 3:40:48 PM	R16782
Surr: BFB	80.4	74.5-129		%REC	1	2/17/2014 3:40:48 PM	R16782
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.040		mg/Kg	1	2/17/2014 3:40:48 PM	R16782
Toluene	ND	0.040		mg/Kg	1	2/17/2014 3:40:48 PM	R16782
Ethylbenzene	ND	0.040		mg/Kg	1	2/17/2014 3:40:48 PM	R16782
Xylenes, Total	ND	0.080		mg/Kg	1	2/17/2014 3:40:48 PM	R16782
Surr: 4-Bromofluorobenzene	87.5	80-120		%REC	1	2/17/2014 3:40:48 PM	R16782

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Client Sample ID: S-6
Project: 2A-3
Collection Date: 2/14/2014 10:20:00 AM
Lab ID: 1402575-006
Matrix: MEOH (SOIL)
Received Date: 2/15/2014 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	2400	1000		mg/Kg	100	2/17/2014 12:32:20 PM	11738
Surr: DNOP	0	66-131	S	%REC	100	2/17/2014 12:32:20 PM	11738
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	1500	39		mg/Kg	10	2/17/2014 1:46:31 PM	R16782
Surr: BFB	631	74.5-129	S	%REC	10	2/17/2014 1:46:31 PM	R16782
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	2.6	0.39		mg/Kg	10	2/17/2014 1:46:31 PM	R16782
Toluene	27	0.39		mg/Kg	10	2/17/2014 1:46:31 PM	R16782
Ethylbenzene	8.7	0.39		mg/Kg	10	2/17/2014 1:46:31 PM	R16782
Xylenes, Total	80	0.79		mg/Kg	10	2/17/2014 1:46:31 PM	R16782
Surr: 4-Bromofluorobenzene	156	80-120	S	%REC	10	2/17/2014 1:46:31 PM	R16782

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Client Sample ID: S-7
Project: 2A-3
Collection Date: 2/14/2014 10:30:00 AM
Lab ID: 1402575-007
Matrix: MEOH (SOIL)
Received Date: 2/15/2014 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/17/2014 1:02:41 PM	11738
Surr: DNOP	98.9	66-131		%REC	1	2/17/2014 1:02:41 PM	11738
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/17/2014 8:54:48 PM	R16782
Surr: BFB	80.8	74.5-129		%REC	1	2/17/2014 8:54:48 PM	R16782
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.046		mg/Kg	1	2/17/2014 8:54:48 PM	R16782
Toluene	ND	0.046		mg/Kg	1	2/17/2014 8:54:48 PM	R16782
Ethylbenzene	ND	0.046		mg/Kg	1	2/17/2014 8:54:48 PM	R16782
Xylenes, Total	ND	0.093		mg/Kg	1	2/17/2014 8:54:48 PM	R16782
Surr: 4-Bromofluorobenzene	87.9	80-120		%REC	1	2/17/2014 8:54:48 PM	R16782

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1402575**

18-Feb-14

Client: Southwest Geoscience

Project: 2A-3

Sample ID **MB-11738**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **11738**	RunNo: **16774**
Prep Date: **2/14/2014**	Analysis Date: **2/17/2014**	SeqNo: **483234** 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	6.8		10.00		67.9	66	131			

Sample ID **LCS-11738**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **11738**	RunNo: **16774**
Prep Date: **2/14/2014**	Analysis Date: **2/17/2014**	SeqNo: **483235** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.9	60.8	145			
Surr: DNOP	4.0		5.000		80.5	66	131			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1402575**

18-Feb-14

Client: Southwest Geoscience

Project: 2A-3

Sample ID **MB-11739 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R16782**	RunNo: **16782**
Prep Date: **2/14/2014**	Analysis Date: **2/17/2014**	SeqNo: **483460** 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	830		1000		83.3	74.5	129			

Sample ID **LCS-11739 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R16782**	RunNo: **16782**
Prep Date: **2/14/2014**	Analysis Date: **2/17/2014**	SeqNo: **483461** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.1	71.7	134			
Surr: BFB	880		1000		88.0	74.5	129			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1402575**

18-Feb-14

Client: Southwest Geoscience

Project: 2A-3

Sample ID **MB-11739 MK**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R16782**	RunNo: **16782**
Prep Date: **2/14/2014**	Analysis Date: **2/17/2014**	SeqNo: **483485** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.2	80	120			

Sample ID **LCS-11739 MK**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R16782**	RunNo: **16782**
Prep Date: **2/14/2014**	Analysis Date: **2/17/2014**	SeqNo: **483486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.5	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Southwest Geoscience Work Order Number: 1402575 RcptNo: 1

Received by/date: AT 02/15/14

Logged By: **Lindsay Mangin** 2/15/2014 10:10:00 AM

Completed By: **Lindsay Mangin** 2/17/2014 7:14:17 AM

Reviewed By: MJ 02/17/14

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: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

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

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: AZTEC, NM
Project Manager: KYLE SUMMERS

Laboratory: HALL
Address: ABQ
Contact: FREEMAN
Phone:
PO/SO #:

Sampler's Name: AARON BRYANT
Sampler's Signature: Aaron Bryant

Proj. No.: 04146005
Project Name: 2A-3
No/Type of Containers: 4 oz

ANALYSIS REQUESTED: BTEX 8021; TPH 8015 DRO/GRO

Lab use only
Due Date:
Temp. of coolers when received (C°): 1.0
1 | 2 | 3 | 4 | 5
Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
S	2-14-14	0930		X	S-1			X	X			1425 75-001
		0940		X	S-2			X	X			-002
		0950		X	S-3			X	X			-003
		1000		X	S-4			X	X			-004
		1010		X	S-5			X	X			-005
		1020		X	S-6			X	X			-006
		1030		X	S-7			X	X			-007

NFS
AB

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	2-14-14	1211		2/14/14	12:11
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	2/14/14	1627		02/14/14	1010
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

February 21, 2014

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

RE: 2A3 OrderNo.: 1402758

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/20/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1402758**
Date Reported: **2/21/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience
Project: 2A3
Lab ID: 1402758-001

Client Sample ID: S-8
Collection Date: 2/19/2014 11:10:00 AM
Matrix: MEOH (SOIL) **Received Date:** 2/20/2014 10:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	17	10		mg/Kg	1	2/20/2014 12:18:30 PM	11822
Surr: DNOP	106	66-131		%REC	1	2/20/2014 12:18:30 PM	11822
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JMP**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	2/20/2014 10:54:39 AM	R16860
Surr: BFB	82.3	74.5-129		%REC	1	2/20/2014 10:54:39 AM	R16860
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.040		mg/Kg	1	2/20/2014 10:54:39 AM	R16860
Toluene	ND	0.040		mg/Kg	1	2/20/2014 10:54:39 AM	R16860
Ethylbenzene	ND	0.040		mg/Kg	1	2/20/2014 10:54:39 AM	R16860
Xylenes, Total	ND	0.081		mg/Kg	1	2/20/2014 10:54:39 AM	R16860
Surr: 4-Bromofluorobenzene	90.9	80-120		%REC	1	2/20/2014 10:54:39 AM	R16860

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1402758**

21-Feb-14

Client: Southwest Geoscience

Project: 2A3

Sample ID **MB-11822**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **11822**	RunNo: **16854**
Prep Date: **2/20/2014**	Analysis Date: **2/20/2014**	SeqNo: **485473** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.1	66	131			

Sample ID **LCS-11822**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **11822**	RunNo: **16854**
Prep Date: **2/20/2014**	Analysis Date: **2/20/2014**	SeqNo: **485475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	99.0	60.8	145			
Surr: DNOP	4.8		5.000		95.2	66	131			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1402758**

21-Feb-14

Client: Southwest Geoscience

Project: 2A3

Sample ID **MB-11806**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **11806**	RunNo: **16860**
Prep Date: **2/19/2014**	Analysis Date: **2/20/2014**	SeqNo: **485643** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	800		1000		79.5	74.5	129			

Sample ID **LCS-11806**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **11806**	RunNo: **16860**
Prep Date: **2/19/2014**	Analysis Date: **2/20/2014**	SeqNo: **485644** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		88.9	74.5	129			

Sample ID **B1**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R16860**	RunNo: **16860**
Prep Date:	Analysis Date: **2/20/2014**	SeqNo: **485659** 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	830		1000		83.1	74.5	129			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R16860**	RunNo: **16860**
Prep Date:	Analysis Date: **2/20/2014**	SeqNo: **485660** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.9	71.7	134			
Surr: BFB	880		1000		87.7	74.5	129			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1402758**

21-Feb-14

Client: Southwest Geoscience

Project: 2A3

Sample ID **MB-11806**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **11806**	RunNo: **16860**
Prep Date: **2/19/2014**	Analysis Date: **2/20/2014**	SeqNo: **485672** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		88.8	80	120			

Sample ID **LCS-11806**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **11806**	RunNo: **16860**
Prep Date: **2/19/2014**	Analysis Date: **2/20/2014**	SeqNo: **485673** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97		1.000		97.2	80	120			

Sample ID **B 1**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R16860**	RunNo: **16860**
Prep Date:	Analysis Date: **2/20/2014**	SeqNo: **485688** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.9	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R16860**	RunNo: **16860**
Prep Date:	Analysis Date: **2/20/2014**	SeqNo: **485689** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.3	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Southwest Geoscience Work Order Number: 1402758 RcptNo: 1

Received by/date: 02/20/14

Logged By: Michelle Garcia 2/20/2014 10:07:00 AM Michelle Garcia

Completed By: Michelle Garcia 2/20/2014 10:13:30 AM Michelle Garcia

Reviewed By: 02/20/14

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: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: Aztec
Project Manager: Summers

Laboratory: Hall
Address: ABQ
Contact: Andy Freeman
Phone:
PO/SO #: 04146005 NES

Sampler's Name: Aaron Bryant
Sampler's Signature:

Proj. No: 04146005
Project Name: 243

ANALYSIS REQUESTED: BTEX 8021 / TPH GRO/DRO 8015

Lab use only
Due Date:
Temp. of coolers when received (C°): 1.0 °C
1 | 2 | 3 | 4 | 5
Page 1 of 2

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	No/Type of Containers	Lab Sample ID (Lab Use Only)
S	2/19/14	1110		X	S-8						1	X X	1402758-001

NES
NS

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	2-19-14	1530		2-19-14	1530
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	2/19/14	1737		02/20/14	1007
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Rush

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