

**3R-1011**

**Release Report/ General  
Correspondence**

**Enterprise SJ**

**Date: Apr-Jun 2014**

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

Form C-141  
Revised August 8, 2011

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

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 3B-23 Block Valve Leak (EOL)	Facility Type: Gathering Line/Block Valve

Surface Owner: Private	Mineral Owner: BLM	API No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	<del>North</del> South Line	Feet from the	<del>East</del> West Line	County
A	30	29N	11W	1240		25		San Juan

Latitude 36.700682 Longitude -108.028410

**NATURE OF RELEASE**

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: 29 MCF Gas; Estimated 3-5 BBLs Liquids	Volume Recovered: Unknown
Source of Release: Block Valve Malfunction	Date and Hour of Occurrence: 1/27/2014 @ 6:06 p.m.	Date and Hour of Discovery: 1/27/2014 @ 6:06 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Brandon Powell - NMOCD	
By Whom? Thomas Long	Date and Hour: 1/27/2014 7:00 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

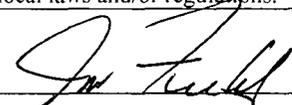
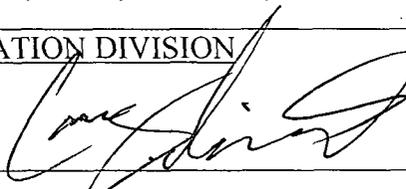
Describe Cause of Problem and Remedial Action Taken.\* A release was discovered on the Lateral 3B-23 (EOL) Block Valve. The release area was in the vicinity of a residential area. The line was blown down, taken out of service and LOTO (lock out tag out) was applied. A 6' by 6' area of approximately 6 feet by 6 feet was impacted by a condensate/water mix.

OIL CONSERVATION DIVISION DIST. 5

MAY 27 2014

Describe Area Affected and Cleanup Action Taken.\* A surface area of approximately 6 feet by 6 feet was impacted by a condensate/water mix. Remediation was completed on March 11, 2014. Approximately 99 cubic yards of hydrocarbon impacted soil was excavated and transported to an approved NMOCD land farm facility. The final excavation measured approximately fifteen (15) feet long by fifteen (15) wide ranging from ten (10) to twelve (12) feet below ground surface. A third party environmental contractor 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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 5/29/14	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5-22-2014	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

# NCS 141 4850.180





**CORRECTIVE ACTION REPORT**

Property:

**3B-23 EOL Release  
NE 1/4, S30 T29N R11W  
San Juan County, New Mexico**

OIL CONS. DIV DIST. 3  
MAY 27 2014

April 14, 2014  
Apex Project No. 7030414G003

Prepared for:

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

Prepared by:

A handwritten signature in black ink, appearing to read 'Kyle Summers'.

---

Kyle Summers, C.P.G.  
Branch Manager

A handwritten signature in black ink, appearing to read 'B. Chris Mitchell'.

---

B. Chris Mitchell, P.G.  
Principal Geoscientist

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Chain of Custody Documentation

## **CORRECTIVE ACTION REPORT**

**3B-23 EOL Release  
NE 1/4, S30 T29N R11W  
San Juan County, New Mexico**

**Apex Project No. 7030414G003**

### **1.0 INTRODUCTION**

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

The 3B-23 EOL Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE)  $\frac{1}{4}$  of Section 30 in Township 29 North and Range 11 West in Bloomfield, San Juan County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on land owned by San Juan County, at the southeast edge of the Salmon River Ruins cultural park and museum property, and is surrounded by the cultural park and residential areas, periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline riser and an associated well tie that traverses the Site.

On February 20th, 2014, Enterprise shut in the 3B-23 EOL due to a gasket leak on the pipeline riser. Repair activities were initiated and an initial attempt to facilitate corrective action at the site by hand-digging was subsequently abandoned due to the depth of impact. On March 4<sup>th</sup>, 2014, after approval from a San Juan County archeologist, corrective actions resumed with the aid of a back hoe. An unknown quantity of condensate/water mixture was potentially released from the riser as a result of the damaged gasket. The leak was visually identified by a release of natural gas from the riser to the atmosphere. Slight soil discoloration was 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 (RALs)* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

#### **1.3 Standard of Care**

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.



## 1.4 Additional Limitations

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.

## 1.5 Reliance

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.

## 2.0 SITE RANKING

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

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	<b>20*</b>
	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	<b>20</b>
	No	0	
Distance to Surface Water Body	<200 feet	20	<b>10</b>
	200 to 1,000 feet	10	
	>1,000 feet	0	
<b>Total Ranking Score</b>			<b>50</b>

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

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 50. This ranking is based on the following:

- The Site is located in an area where groundwater is expected to be encountered within 50 feet bgs.
- The Office of the State Engineer website database identifies several private water wells within Section 30 of T29N R12W. No water wells were visually identified within 200 feet of the Site, but may be present as two (2) residences are located within 200 feet of the

Site. The San Juan River (a water source) is located approximately 980 feet south of the Site.

- A possible historic pond is located near the Site at the head of an ephemeral wash (as identified by the 1965 USGS topographic map, but does not contain water. The San Juan River (surface water body) is located approximately 980 feet south of the Site.

### **3.0 RESPONSE ACTIONS**

#### **3.1 Soil Excavation Activities**

On February 20th, 2014, Enterprise shut in the 3B-23 EOL due to a gasket leak on the pipeline riser. Repair activities were initiated and an initial attempt to facilitate corrective action at the site by hand-digging was subsequently abandoned due to the depth of impact. On March 4<sup>th</sup>, 2014, after approval from a San Juan County archeologist, corrective actions resumed with the aid of a back hoe. An estimated five (5) to ten (10) barrels of condensate/water mixture was potentially released from the riser as a result of the damaged gasket. The leak was visually identified by a release of natural gas from the riser to the atmosphere. Slight soil discoloration was visible at the surface. 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. An Archeologist from the Salmon River Ruins museum was present during all excavation activities.

During the first stage of corrective action, subsequent to the pipeline repair activities, approximately 9 cubic yards of hydrocarbon affected soils were excavated at the Site using hand tools. Initial corrective action activities were halted once the depth of excavation reached 4 feet bgs.

On March 4<sup>th</sup>, 2014, subsequent to the approval to utilize a back hoe at the Site, Enterprise resumed corrective actions. The excavation was extended in all four (4) cardinal directions from the riser, and an additional 90 cubic yards of material were removed from the floor and sidewalls of the excavation in the immediate vicinity of the release. The total depth of the final excavation reached approximately 10 feet to 12 bgs. The overall average surface expression of the excavation measured approximately 15 feet long by 15 feet wide.

A total of approximately 99 cubic yards of hydrocarbon affected soils were excavated and transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. The executed C-138 forms are provided in Appendix B. Following the receipt of acceptable confirmation sampling results, 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.

The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands with occasional gravel and cobbles.

Although soil moisture increased with excavation depth, groundwater was not encountered during the corrective action activities.

Figure 3 is a site map that indicates the location of the excavated area and shows the final confirmation sample locations in relation to the final excavation dimensions (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 eleven (11) confirmation samples (SC-1 through SC-11) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions, and based on on-site OCD guidance, composite samples were collected for laboratory analysis.

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 label, 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 either Envirotech Analytical Laboratory in Farmington, New Mexico or Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for 24-hr rush analysis.

### 4.0 LABORATORY ANALYTICAL METHODS

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.

### 5.0 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.

#### 5.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the eleven (11) confirmation samples collected from the excavated area to the OCD RAL for sites having a total ranking score of "50".

- The laboratory analyses of the confirmation samples of soils remaining in place did not indicate benzene concentrations above the OCD RAL.

- The laboratory analyses of the confirmation samples of soils remaining in place did not indicate total BTEX concentrations above the OCD RAL.
- The laboratory analyses of the confirmation samples of soil remaining in place did not indicate TPH GRO/DRO concentrations above the OCD RAL of 100 mg/Kg for a Site ranking of "50".

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

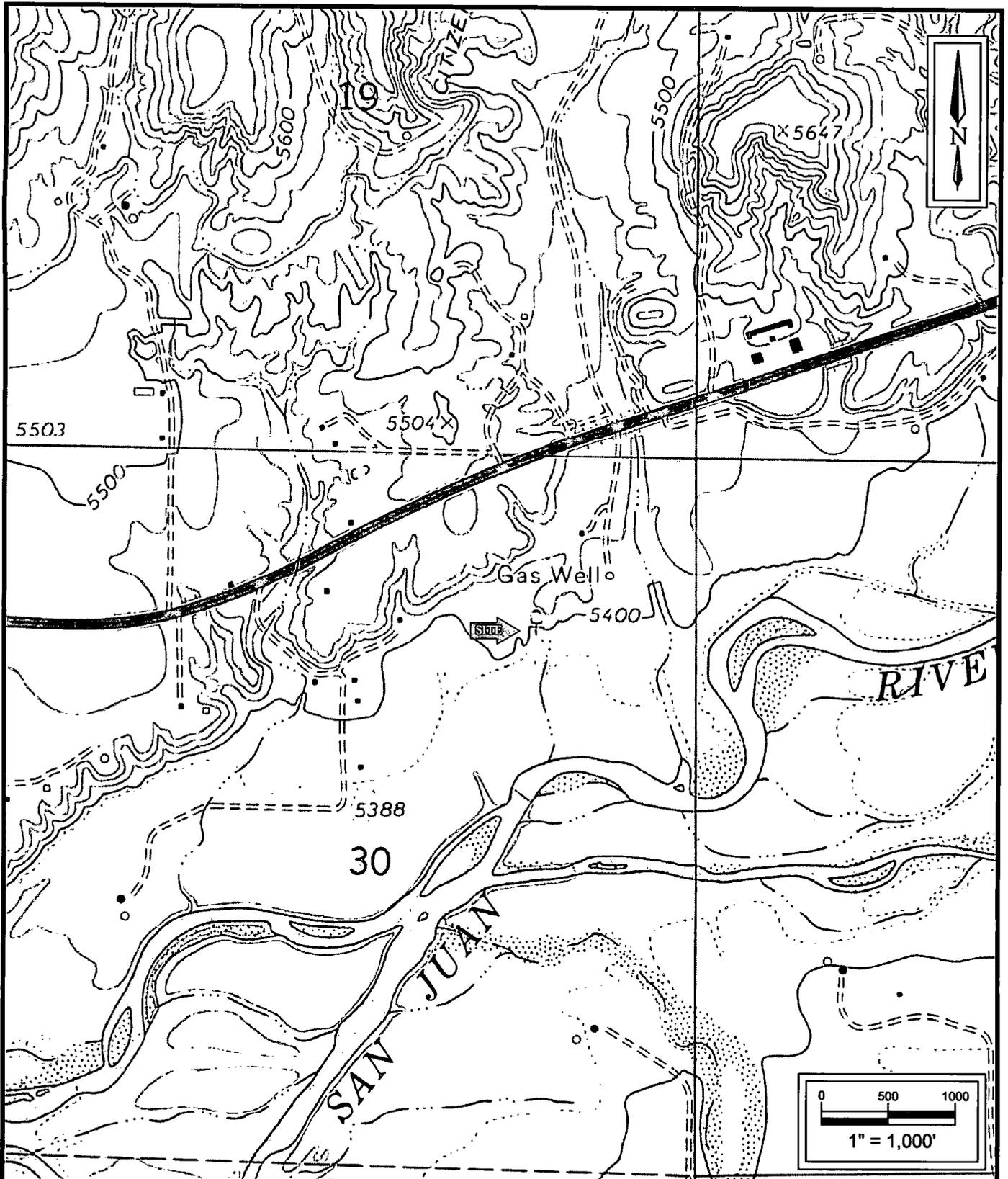
## 6.0 FINDINGS AND RECOMMENDATIONS

The 3B-23 EOL Release Site is located within the Enterprise pipeline ROW in the NE ¼ of Section 30 in Township 29 North and Range 11 West in Bloomfield, San Juan County, New Mexico. The Site is located on land owned by San Juan County, at the southeast edge of the Salmon River Ruins cultural park and museum property, and is surrounded by the cultural park and residential areas, periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline riser and an associated well tie that traverses the Site.

On February 20th, 2014, Enterprise shut in the 3B-23 EOL due to a gasket leak on the pipeline riser. Repair activities were initiated and an initial attempt to facilitate corrective action at the site by hand-digging was subsequently abandoned due to the depth of impact. On March 4<sup>th</sup>, 2014, after approval from a San Juan County archeologist, corrective actions resumed with the aid of a back hoe. An unknown quantity of condensate/water mixture was potentially released from the riser as a result of the damaged gasket. The leak was visually identified by a release of natural gas from the riser to the atmosphere. Slight soil discoloration was visible at the surface.

- 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 reached approximately 10 feet to 12 feet bgs near the source of the release. The overall average surface expression of the excavation measured approximately 15 feet long by 15 feet wide.
- A total of approximately 99 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to the surrounding grade.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands with occasional gravel and cobbles.
- Groundwater was not encountered during the corrective action excavation activities.
- Prior to backfilling the excavation, confirmation samples were collected from the floor and sidewalls of the excavation. Based on analytical and screening results, the soils remaining on-site do not exhibit COC concentrations above the OCD RALs.

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



3B-23 EOL Release  
 NE 1/4 S30 T29N R11W  
 Bloomfield, San Juan County, NM  
 36.700572N, -108.028397W  
 Project No. 7030414G003.001



**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 1**  
**Topographic Map**  
 Horn Canyon, NM Quadrangle  
 1965



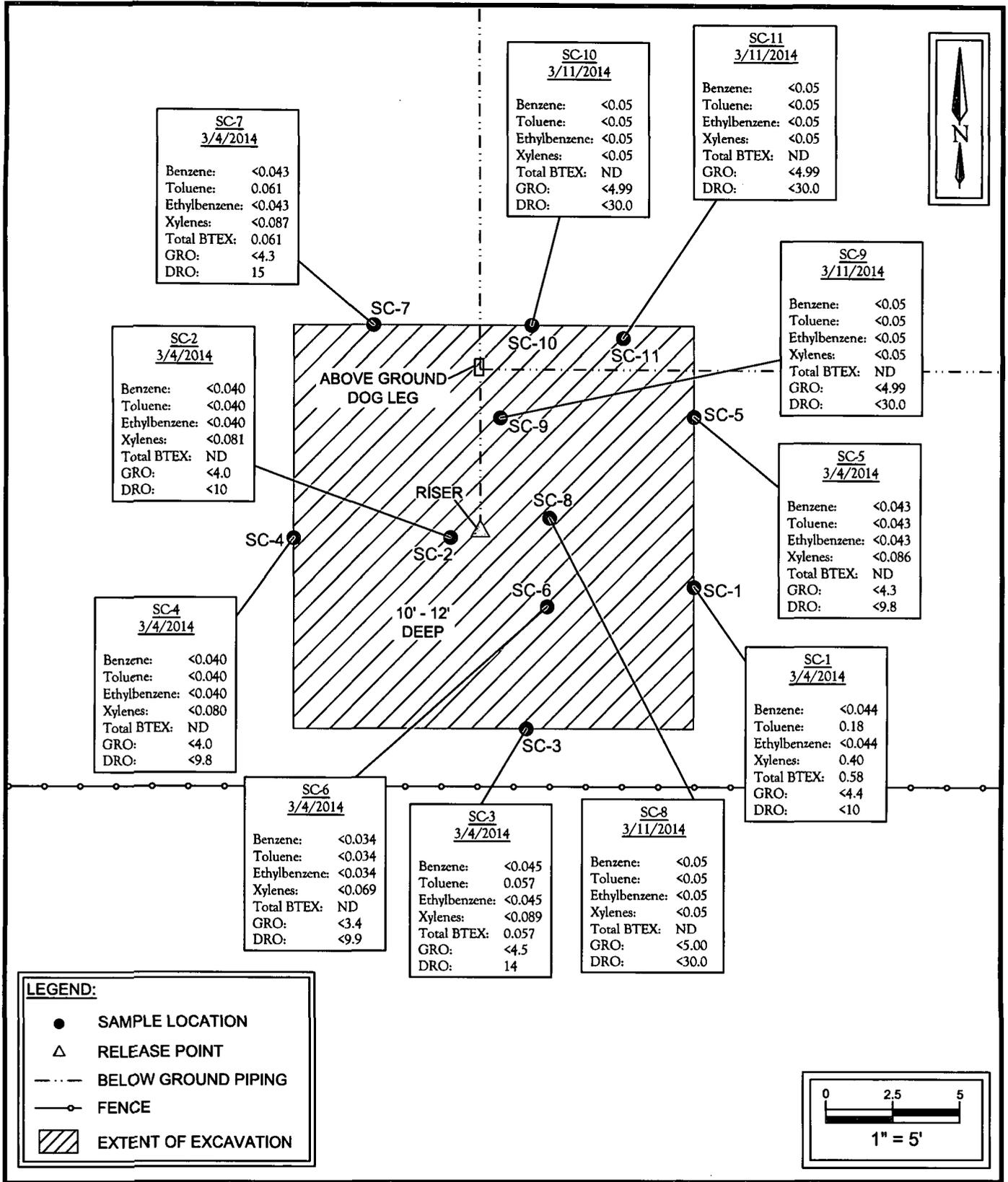
**3B-23 EOL Release**  
NE 1/4 S30 T29N R11W  
Bloomfield, San Juan County, NM  
36.700572N, -108.028397W

Project No. 7030414G003.001



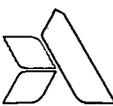
**Apex TITAN, Inc.**  
606 S. Rio Grande, Suite A  
Aztec, New Mexico 87410  
Phone: (505) 334-5200  
[www.apexcos.com](http://www.apexcos.com)  
A Subsidiary of Apex Companies, LLC

**FIGURE 2**  
**Site Vicinity Map**  
2013 Aerial Photograph



**3B-23 EOL Release**  
 NE 1/4 S30 T29N R11W  
 Bloomfield, San Juan County, NM  
 36.700572N, -108.028397W

Project No. 7030414G003.001



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 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**  
**Sample Locations**

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. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401	3-11-14 10cy
2. Originating Site: Lateral 3B-23 EOL	3-10-14 20cy
3. Location of Material (Street Address, City, State or ULSTR): Unit A, Section 30, T29N, R11W; 36.700682, -108.028410	3-5-14 10cy
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas gathering line block valve.	3-4-14 50cy
5. Estimated Volume <u>30</u> yd <sup>3</sup> bbls Known Volume (to be entered by the operator at the end of the haul) <u>9</u> yd <sup>3</sup> bbls	
<b>5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b>	
I, <u>Thomas Long</u> 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. <u>Operator Use Only Waste Acceptance frequency</u> <input 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 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 (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 Block 5)	
<b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b>	
I, <u>Thomas Long</u> <u>2-20-14</u> , representative for <u>Enterprise Field Services, LLC</u> authorize Envirotech to Generator Signature complete the required testing/sign the Generator Waste Testing Certification.	
I, <u>[Signature]</u> , representative for <u>Envirotech, 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 the results 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 19.15.36 NMAC.	
6. Transporter: West States Energy Contractors (WSEC)	

OCD Permitted Surface Waste Management Facility  
Name and Facility Permit #: JFJ Landfarm/Industrial Ecosystems, Inc. \* Permit #: NM 01-0010B  
Address of Facility: #49 CR 2150 Aztec, New Mexico  
Method of Treatment and/or Disposal:  
Treating Plant  Landfarm  Landfill  Other

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

PRINT NAME: [Signature] TITLE: [Signature] DATE: 2-20-14

SIGNATURE: [Signature] TELEPHONE NO.: 505-633-782

Surface Waste Management Facility Authorized Agent

CL-21  
Ph-7

2-20-14

**Photograph 1**

Staining at base of Riser.



**Photograph 2**

Excavating the west portion of the release area (facing south).



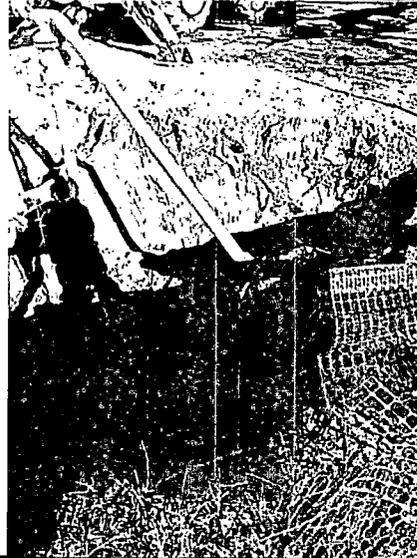
**Photograph 3**

General view of final excavation facing southwest. Note the backfill in SW corner to prevent sloughing near fence.



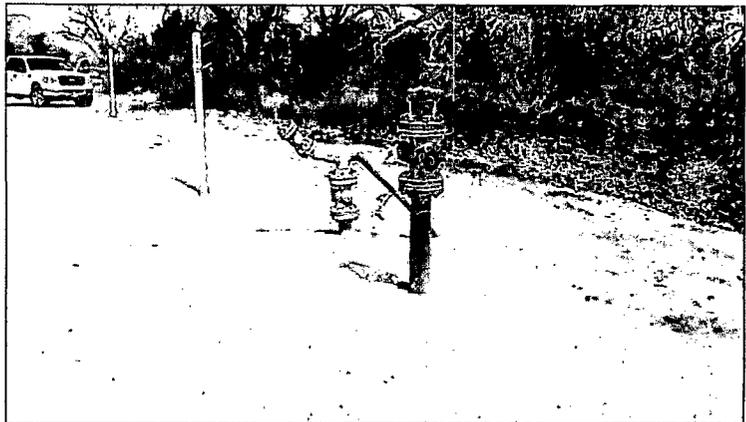
**Photograph 4**

General view of final excavation (east half) facing northwest.



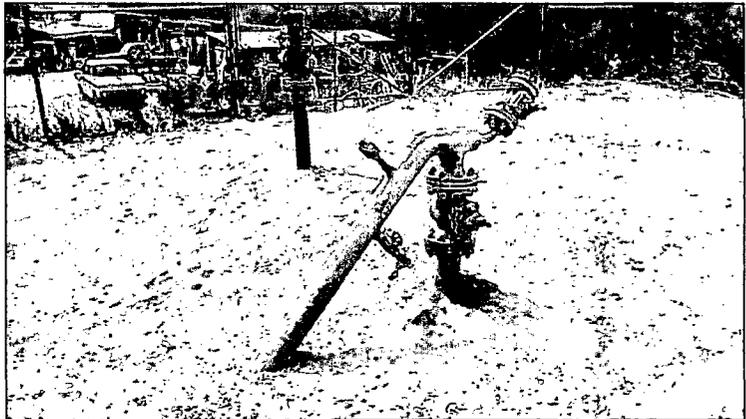
**Photograph 5**

View after completion of corrective actions (facing north).



**Photograph 6**

View after the completion of corrective actions (facing southwest).





**TABLE 1**  
**3B-23 EOL**  
**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	100	
Final Confirmation Samples for Soils Remaining in Place										
SC-1	3/4/2014	C (3 aliquot)	2-8	<0.044	0.18	<0.044	0.40	0.58	<4.4	<10
SC-2	3/4/2014	C (3 aliquot)	11-12	<0.040	<0.040	<0.040	<0.081	ND	<4.0	<10
SC-3	3/4/2014	C (4 aliquot)	2-10	<0.045	0.057	<0.045	<0.089	0.057	<4.5	14
SC-4	3/4/2014	C (4 aliquot)	1-11	<0.040	<0.040	<0.040	<0.080	ND	<4.0	<9.8
SC-5	3/4/2014	C (3 aliquot)	2-10	<0.043	<0.043	<0.043	<0.086	ND	<4.3	<9.8
SC-6	3/4/2014	C (2 aliquot)	10-11	<0.034	<0.034	<0.034	<0.069	ND	<3.4	<9.9
SC-7	3/4/2014	C (2 aliquot)	3-8	<0.043	0.061	<0.043	<0.087	0.061	<4.3	15
SC-8	3/11/2014	C (3 aliquot)	10-11	<0.05	<0.05	<0.05	<0.05	ND	<5.00	<30.0
SC-9	3/11/2014	C (2 aliquot)	10-12	<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0
SC-10	3/11/2014	C (3 aliquot)	1-8	<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0
SC-11	3/11/2014	C (2 aliquot)	3-5	<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0

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

NA = Not Analyzed

NE = Not Established



*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)*

March 07, 2014

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

RE: 3B-23 EDL

OrderNo.: 1403225

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/6/2014 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Southwest Geoscience

Client Sample ID: SC-1

Project: 3B-23 EDL

Collection Date: 3/4/2014 3:14:00 PM

Lab ID: 1403225-001

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/6/2014 12:09:24 PM	12049
Surr: DNOP	107	66-131		%REC	1	3/6/2014 12:09:24 PM	12049
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Surr: BFB	94.1	74.5-129		%REC	1	3/6/2014 11:15:40 AM	R17144
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.044		mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Toluene	0.18	0.044		mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Ethylbenzene	ND	0.044		mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Xylenes, Total	0.40	0.089		mg/Kg	1	3/6/2014 11:15:40 AM	R17144
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	3/6/2014 11:15:40 AM	R17144

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
	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  
**Project:** 3B-23 EDL  
**Lab ID:** 1403225-002

**Matrix:** SOIL

**Client Sample ID:** SC-2  
**Collection Date:** 3/4/2014 3:30:00 PM  
**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/6/2014 11:38:48 AM	12049
Surr: DNOP	107	66-131		%REC	1	3/6/2014 11:38:48 AM	12049
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	3/6/2014 11:45:46 AM	R17144
Surr: BFB	86.5	74.5-129		%REC	1	3/6/2014 11:45:46 AM	R17144
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.040		mg/Kg	1	3/6/2014 11:45:46 AM	R17144
Toluene	ND	0.040		mg/Kg	1	3/6/2014 11:45:46 AM	R17144
Ethylbenzene	ND	0.040		mg/Kg	1	3/6/2014 11:45:46 AM	R17144
Xylenes, Total	ND	0.081		mg/Kg	1	3/6/2014 11:45:46 AM	R17144
Surr: 4-Bromofluorobenzene	97.1	80-120		%REC	1	3/6/2014 11:45:46 AM	R17144

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: SC-3

Project: 3B-23 EDL

Collection Date: 3/4/2014 3:45:00 PM

Lab ID: 1403225-003

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	14	9.9		mg/Kg	1	3/6/2014 1:41:29 PM	12049
Surr: DNOP	117	66-131		%REC	1	3/6/2014 1:41:29 PM	12049
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	3/6/2014 12:15:54 PM	R17144
Surr: BFB	92.9	74.5-129		%REC	1	3/6/2014 12:15:54 PM	R17144
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.045		mg/Kg	1	3/6/2014 12:15:54 PM	R17144
Toluene	0.057	0.045		mg/Kg	1	3/6/2014 12:15:54 PM	R17144
Ethylbenzene	ND	0.045		mg/Kg	1	3/6/2014 12:15:54 PM	R17144
Xylenes, Total	ND	0.089		mg/Kg	1	3/6/2014 12:15:54 PM	R17144
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	3/6/2014 12:15:54 PM	R17144

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
	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: SC-4

Project: 3B-23 EDL

Collection Date: 3/4/2014 3:50:00 PM

Lab ID: 1403225-004

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/6/2014 2:12:16 PM	12049
Surr: DNOP	106	66-131		%REC	1	3/6/2014 2:12:16 PM	12049
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Surr: BFB	95.3	74.5-129		%REC	1	3/6/2014 12:46:09 PM	R17144
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.040		mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Toluene	ND	0.040		mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Ethylbenzene	ND	0.040		mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Xylenes, Total	ND	0.080		mg/Kg	1	3/6/2014 12:46:09 PM	R17144
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	3/6/2014 12:46:09 PM	R17144

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:** SC-5  
**Project:** 3B-23 EDL **Collection Date:** 3/5/2014 8:00:00 AM  
**Lab ID:** 1403225-005 **Matrix:** SOIL **Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/6/2014 2:43:23 PM	12049
Surr: DNOP	113	66-131		%REC	1	3/6/2014 2:43:23 PM	12049
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Surr: BFB	92.8	74.5-129		%REC	1	3/6/2014 1:16:19 PM	R17144
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.043		mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Toluene	ND	0.043		mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Ethylbenzene	ND	0.043		mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Xylenes, Total	ND	0.086		mg/Kg	1	3/6/2014 1:16:19 PM	R17144
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	3/6/2014 1:16:19 PM	R17144

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  
 Project: 3B-23 EDL  
 Lab ID: 1403225-006

Matrix: SOIL

Client Sample ID: SC-6  
 Collection Date: 3/5/2014 8:10:00 AM  
 Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/6/2014 3:14:23 PM	12049
Surr: DNOP	121	66-131		%REC	1	3/6/2014 3:14:23 PM	12049
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Surr: BFB	88.5	74.5-129		%REC	1	3/6/2014 1:46:34 PM	R17144
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.034		mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Toluene	ND	0.034		mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Ethylbenzene	ND	0.034		mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Xylenes, Total	ND	0.069		mg/Kg	1	3/6/2014 1:46:34 PM	R17144
Surr: 4-Bromofluorobenzene	98.3	80-120		%REC	1	3/6/2014 1:46:34 PM	R17144

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
	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  
**Project:** 3B-23 EDL  
**Lab ID:** 1403225-007

**Matrix:** SOIL

**Client Sample ID:** SC-7  
**Collection Date:** 3/5/2014 8:20:00 AM  
**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	15	10		mg/Kg	1	3/6/2014 3:45:22 PM	12049
Surr: DNOP	114	66-131		%REC	1	3/6/2014 3:45:22 PM	12049
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Surr: BFB	94.1	74.5-129		%REC	1	3/6/2014 2:16:48 PM	R17144
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.043		mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Toluene	0.061	0.043		mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Ethylbenzene	ND	0.043		mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Xylenes, Total	ND	0.087		mg/Kg	1	3/6/2014 2:16:48 PM	R17144
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	3/6/2014 2:16:48 PM	R17144

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
	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#: 1403225

07-Mar-14

Client: Southwest Geoscience  
Project: 3B-23 EDL

Sample ID	MB-12049	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12049	RunNo:	17130					
Prep Date:	3/6/2014	Analysis Date:	3/6/2014	SeqNo:	492587	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.4		10.00		94.4	66	131			

Sample ID	LCS-12049	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12049	RunNo:	17130					
Prep Date:	3/6/2014	Analysis Date:	3/6/2014	SeqNo:	492697	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.2	60.8	145			
Surr: DNOP	4.8		5.000		97.0	66	131			

Sample ID	MB-12024	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12024	RunNo:	17130					
Prep Date:	3/5/2014	Analysis Date:	3/6/2014	SeqNo:	492768	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.8	66	131			

Sample ID	LCS-12024	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12024	RunNo:	17130					
Prep Date:	3/5/2014	Analysis Date:	3/6/2014	SeqNo:	492769	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		117	66	131			

Sample ID	1403225-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	12049	RunNo:	17130					
Prep Date:	3/6/2014	Analysis Date:	3/6/2014	SeqNo:	492945	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	4.741	102	47.4	148			
Surr: DNOP	5.9		5.000		118	66	131			

Sample ID	1403225-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	12049	RunNo:	17130					
Prep Date:	3/6/2014	Analysis Date:	3/6/2014	SeqNo:	492984	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	9.9	49.26	4.741	103	47.4	148	0.425	22.7	
Surr: DNOP	5.6		4.926		115	66	131	0	0	

**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

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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403225

07-Mar-14

Client: Southwest Geoscience

Project: 3B-23 EDL

Sample ID	MB-12059	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12059	RunNo:	17125					
Prep Date:	3/6/2014	Analysis Date:	3/6/2014	SeqNo:	493441	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.2		10.00		81.6	66	131			

Sample ID	LCS-12059	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12059	RunNo:	17125					
Prep Date:	3/6/2014	Analysis Date:	3/6/2014	SeqNo:	493442	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.3	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#: 1403225

07-Mar-14

**Client:** Southwest Geoscience  
**Project:** 3B-23 EDL

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493621</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	940		1000		93.6	74.5	129			

Sample ID	<b>2.5UG GRO LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493623</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	93.0	71.7	134			
Surr: BFB	960		1000		95.9	74.5	129			

Sample ID	<b>1403225-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>SC-1</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493633</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.4	22.24	0	97.5	69.5	145			
Surr: BFB	910		889.7		102	74.5	129			

Sample ID	<b>1403225-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>SC-1</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493634</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.4	22.24	0	93.2	69.5	145	4.45	20	
Surr: BFB	910		889.7		102	74.5	129	0	0	

**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#: 1403225

07-Mar-14

Client: Southwest Geoscience

Project: 3B-23 EDL

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493688</b>	Units:	<b>mg/Kg</b>			
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	1.1		1.000		107	80	120			

Sample ID	<b>100NG BTEX LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493689</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	92.7	80	120			
Toluene	0.93	0.050	1.000	0	93.4	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	<b>1403225-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>SC-1</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493699</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.044	0.8897	0.02838	87.3	67.4	135			
Toluene	0.99	0.044	0.8897	0.1814	90.4	72.6	135			
Ethylbenzene	0.85	0.044	0.8897	0.03212	91.5	69.4	143			
Xylenes, Total	2.9	0.089	2.669	0.3987	94.4	70.8	144			
Surr: 4-Bromofluorobenzene	0.98		0.8897		111	80	120			

Sample ID	<b>1403225-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>SC-1</b>	Batch ID:	<b>R17144</b>	RunNo:	<b>17144</b>					
Prep Date:		Analysis Date:	<b>3/6/2014</b>	SeqNo:	<b>493700</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.044	0.8897	0.02838	85.9	67.4	135	1.51	20	
Toluene	0.97	0.044	0.8897	0.1814	88.2	72.6	135	1.91	20	
Ethylbenzene	0.84	0.044	0.8897	0.03212	90.4	69.4	143	1.21	20	
Xylenes, Total	2.9	0.089	2.669	0.3987	92.4	70.8	144	1.87	20	
Surr: 4-Bromofluorobenzene	0.98		0.8897		111	80	120	0	0	

**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

**Sample Log-In Check List**

Client Name: Southwest Geoscience

Work Order Number: 1403225

RcptNo: 1

Received by/date: AT 03/06/14

Logged By: Anne Thorne 3/6/2014 10:20:00 AM *Anne Thorne*

Completed By: Anne Thorne 3/6/2014 *Anne Thorne*

Reviewed By: mg 03/06/14

**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

<h1 style="margin: 0;">Southwest</h1> <h2 style="margin: 0;">GEOSCIENCE</h2> <p style="margin: 0; font-size: small;">Environmental &amp; Hydrogeologic Consultants</p>		Laboratory: <u>Hall</u> Address: <u>ABO</u>		ANALYSIS REQUESTED  <div style="font-size: 2em; transform: rotate(-45deg); position: absolute; top: 50%; left: 50%; opacity: 0.5;">                     BTEX 8021                      TPH GR/DRO 8015                 </div>										Lab use only Due Date: _____  Temp. of coolers when received (C°): <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <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> </table>					1	2	3	4	5														
		1	2											3	4	5																					
Office Location: <u>Aztec</u>		Contact: <u>Freeman</u> Phone: _____		Page <u>1</u> of <u>1</u>																																	
Project Manager: <u>Summers</u>		PO/SO #: <u>04146003</u>		Lab Sample ID (Lab Use Only)																																	
Sampler's Name: <u>Kyle Summers</u>		Sampler's Signature: <u>[Signature]</u>																																			
Proj. No: <u>04146003</u>		Project Name: <u>3B-23 EOL</u>				No/Type of Containers																															
Matrix	Date	Time	COED	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L.	250 ml	P/O																										
S	3/4/14	1514			SC-1							X X ↓ ↓																									
		1530			SC-2																																
		1545			SC-3																																
		1550			SC-4																																
	3/5/14	0800			SC-5																																
		0810			SC-6																																
		0820			SC-7																																
Turn around time: <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush <u>Same day</u>																																					
Relinquished by (Signature): <u>[Signature]</u>			Date: <u>3/5/14</u> Time: <u>1531</u>		Received by (Signature): <u>[Signature]</u>			Date: <u>3/5/14</u> Time: <u>1531</u>		NOTES:  <div style="font-size: 2em;">1.0</div>																											
Relinquished by (Signature): <u>[Signature]</u>			Date: <u>3/10/14</u> Time: <u>1630</u>		Received by (Signature): <u>[Signature]</u>			Date: <u>03/10/14</u> Time: <u>1020</u>																													
Relinquished by (Signature): _____			Date: _____ Time: _____		Received by (Signature): _____			Date: _____ Time: _____																													
Relinquished by (Signature): _____			Date: _____ Time: _____		Received by (Signature): _____			Date: _____ Time: _____																													
Matrix Container: WW - Wastewater, VOA - 40 ml vial, W - Water, A/G - Amber / Or Glass 1 Liter, S - Soil, SD - Solid, L - Liquid, A - Air Bag, 250 ml - Glass wide mouth, C - Charcoal tube, P/O - Plastic or other, SL - sludge, O - Oil																																					



## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16705  
Samples Received: 3/11/2014 10:04:00AM  
Job Number: 07174-0003  
Work Order: P403026  
Project Name/Location: 3B-23 EOL

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Tim Cain, Laboratory Manager

Date: 3/13/14

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
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**Analytical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-8	P403026-01A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.
SC-9	P403026-02A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.
SC-10	P403026-03A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.
SC-11	P403026-04A	Soil	03/11/14	03/11/14	Glass Jar, 4 oz.

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Ph (970) 259-0615 Fr (800) 362-1879

[envirotech-inc.com](http://envirotech-inc.com)  
[laboratory@envirotech-inc.com](mailto:laboratory@envirotech-inc.com)



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
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**SC-8**  
**P403026-01 (Solid)**

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		102 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		98.9 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
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SC-9

P403026-02 (Solid)

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		100 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		97.7 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
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**SC-10**  
**P403026-03 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		104 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		101 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
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**SC-11**

**P403026-04 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		94.5 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		96.3 %		80-120	1411005	03/11/14	03/12/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1411005	03/11/14	03/12/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1411004	03/11/14	03/12/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
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**Volatile Organics by EPA 8021 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1411005 - Purge and Trap EPA 5030A**

<b>Blank (1411005-BLK1)</b>		Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	46.5		ug/L	50.0		93.0	80-120			
Surrogate: Bromochlorobenzene	50.3		"	50.0		101	80-120			

<b>Duplicate (1411005-DUP1)</b>		Source: P402099-01RE1 Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	42.8		ug/L	50.0		85.6	80-120			
Surrogate: Bromochlorobenzene	56.9		"	50.0		114	80-120			

<b>Matrix Spike (1411005-MS1)</b>		Source: P402099-01RE1 Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Benzene	50.4		ug/L	50.0	ND	101	39-150			
Toluene	54.7		"	50.0	ND	109	46-148			
Ethylbenzene	52.5		"	50.0	ND	105	32-160			
p,m-Xylene	107		"	100	ND	107	46-148			
o-Xylene	52.5		"	50.0	ND	105	46-148			
Surrogate: 1,3-Dichlorobenzene	56.4		"	50.0		113	80-120			
Surrogate: Bromochlorobenzene	66.0		"	50.0		132	80-120			Surr1

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Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com  
laboratory@envirotech-inc.com



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1411004 - DRO Extraction EPA 3550C**

<b>Blank (1411004-BLK1)</b>		Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
<b>Duplicate (1411004-DUP1)</b>		Source: P402099-01 Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Diesel Range Organics (C10-C28)	3860	30.0	mg/kg		5910			42.1	30	D1
<b>Matrix Spike (1411004-MS1)</b>		Source: P402099-01 Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Diesel Range Organics (C10-C28)	4270		mg/L	250	5630	NR	75-125			SPK1

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Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

[envirotech-inc.com](http://envirotech-inc.com)  
[laboratory@envirotech-inc.com](mailto:laboratory@envirotech-inc.com)



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
---	--	------------------------------

**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1411005 - Purge and Trap EPA 5030A**

<b>Blank (1411005-BLK1)</b>		Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
<b>Duplicate (1411005-DUP1)</b>		Source: P402099-01RE1 Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Gasoline Range Organics (C6-C10)	13.7	4.99	mg/kg		7.20			62.1	30	D1
<b>Matrix Spike (1411005-MS1)</b>		Source: P402099-01RE1 Prepared: 11-Mar-14 Analyzed: 12-Mar-14								
Gasoline Range Organics (C6-C10)	0.55		mg/L	0.450	0.14	90.2	75-125			

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envirotech-inc.com  
laboratory@envirotech-inc.com



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 3B-23 EOL Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 13-Mar-14 13:14
---	--	------------------------------

**Notes and Definitions**

- Surr1 Surrogate recovery was above acceptable limits.
- SPK1 The spike recovery for this QC sample is outside of control limits.
- D1 Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16705

Client: <b>Southwest Geo</b>		Project Name / Location: <b>3B-23 EOL</b>		ANALYSIS / PARAMETERS												
Email results to: <b>Kyle Summers</b>		Sampler Name: <b>Kyle Summers</b>		DRO GRO	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	FCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact
Client Phone No.: <b>903 821-5603</b>		Client No.: <b>07174-0003</b>														

Sample No. / Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	FCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl													
SC-8	3/11/14	0800	P403026-01	1 X 4oz.			X	X										✓	✓
SC-9	↓	0810	P403026-02	↓			↓	↓										✓	✓
SC-10	↓	0820	P403026-03	↓			↓	↓										✓	✓
SC-11	↓	0900	P403026-04	↓			↓	↓										✓	✓
<del>NFS RS</del>																			

Relinquished by: (Signature)	Date: 3/11/14	Time: 10:04	Received by: (Signature)	Date: 3/11/14	Time: 10:04
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>					

Sample(s) dropped off after hours to secure drop off area.

**RUSH**

12.9 10.6 11.0 11.5

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: P.O. Box 4324, Houston, TX 77210	Telephone No. 505-599-2286
Facility Name: Lateral 10A-5	Facility Type: Natural Gas Gathering Line

Surface Owner: NAPI/Navajo Nation	Mineral Owner: BLM	API No.
-----------------------------------	--------------------	---------

**LOCATION OF RELEASE**

Unit Letter M	Section 34	Township 26N	Range 12W	Feet from the 200	North/South Line South	Feet from the 1274	East/West Line West	County San Juan
------------------	---------------	-----------------	--------------	----------------------	---------------------------	-----------------------	------------------------	--------------------

Latitude 36.438323 Longitude -108.103399

**NATURE OF RELEASE**

Type of Release: Natural Gas and Natural gas liquids	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Internal Corrosion of the Pipeline	Date and Hour of Occurrence: 2/19/2014 @ 12:30 p.m.	Date and Hour of Discovery: 2/19/2014 @ 12:30 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD - Jonathan Kelly, NNEPA - Steve Austin, Greg Yazzie and Mike Freeman - NAPI	
By Whom? Thomas Long	Date and Hour 2/20/2014 @ 9:18 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 Trunk 10A-5. The release was a result of internal corrosion of the pipeline. Initially an area of approximately 12 feet by 25 feet was affected. The line was blown down, taken out of service and LOTO (lock out tag out) was applied. The repairs/remediation activities were completed on February 25, 2014.

Describe Area Affected and Cleanup Action Taken.\* Assessment and remediation activities were completed on February 25, 2014. Approximately 40 cubic yards of hydrocarbon impacts soil was excavated and transported to a NMOCD approved land farm facility. A third party environmental contractor corrective action report is included with this "final" c-141.

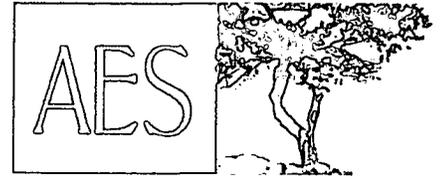
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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 Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: 5/29/14	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5-22-2014 Phone: (713)381-6684		

\* Attach Additional Sheets If Necessary

#NCS 141 484 9222

42



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

May 8, 2014

Thomas Long  
Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, New Mexico 87401

*Via electronic mail with delivery confirmation receipt to:*  
[tjlong@eprod.com](mailto:tjlong@eprod.com)

**RE: Release Assessment Report  
Lateral 10A-5 February 2014 Pipeline Release  
SW¼ SW¼, Section 34, T26N, R12W  
San Juan County, New Mexico**

**OIL CONS. DIV DIST. 3  
MAY 27 2014**

Dear Mr. Long:

On February 20 and 25, 2014, Animas Environmental Services, LLC (AES) completed an assessment associated with a release of natural gas and pipeline liquids of unknown volume resulting from a pipeline leak at the Enterprise Field Services, LLC (Enterprise) Lateral 10A-5 pipeline. The release was discovered on February 19, 2014, and resulted from pipeline corrosion.

---

## 1.0 Site Information

### 1.1 Location

Location – SW¼ SW¼, Section 34, T26N, R12W, San Juan County, New Mexico

Latitude/Longitude – N36.43801 and W108.10355, respectively

Surface Owner – Navajo Reservation (Navajo Agricultural Products Industry)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map

### 1.2 NMOCD Ranking

In accordance with Navajo Nation Environmental Protection Agency (NNEPA) release protocols, action levels were established per New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** A perched groundwater table associated with percolation of irrigation water was observed at 5.5 feet below ground surface (bgs) in the excavation at the time of pipeline repair activities. (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The release is located approximately 925 feet to the north of an ephemeral wash which discharges to West Fork Gallegos Canyon. (10 points)

The ranking score of 30 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

### *1.3 Assessment and Mitigation*

On February 19, 2014, Enterprise personnel discovered a release associated with internal corrosion during pipeline lowering operations along the Lateral 10A-5 pipeline. On February 20, 2014, AES collected two soil samples (S-1 and S-2) from the north and south walls of the initial excavation, in addition to one composite sample (SC-1) from temporarily stockpiled soil, for field screening and laboratory analysis. The east and west walls were comprised of disturbed, clean backfill from the line lowering operations; therefore, no samples were collected from these walls. Following additional excavation for pipeline repair access on February 25, 2014, AES collected one soil sample (S-3) from the base of the excavation and two composite soil samples (SC-2 and SC-3) from temporarily stockpiled soil for field screening and laboratory analysis. Based on field screening results, the excavation was extended an additional 1.5 feet in depth, and a soil sample (S-4) was collected from the final excavation base. A water sample (W-1) was collected from the edge of the excavation, immediately down gradient of the release location, and was also submitted for laboratory analysis.

The final excavation measured approximately 60 feet by 22 feet by 10 feet deep. The excavation was backfilled with clean, imported material along with a portion of the excavation spoils shown to be below applicable action levels (based on field sampling and laboratory analyses). Approximately 40 cubic yards of petroleum impacted soil was transported to the Envirotech Landfarm for proper disposal. Soil sample locations and final excavation extents are included on Figure 3. The Envirotech Bill of Lading and a photograph log are included in the Appendix.

## 2.0 Soil and Water Sampling

Two soil samples (S-1 and S-2) were collected from the north and south walls of the initial excavation, and two soil samples (S-3 and S-4) were collected from the base of the excavation. Three composite soil samples (SC-1 through SC-3) were collected from the temporarily stockpiled excavation soils. All soil samples were field screened for volatile organic compounds (VOCs). One water sample (W-1) for was collected from the edge of the excavation, immediately down gradient of the release location.

### 2.1 Field Screening

#### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

### 2.2 Laboratory Analyses

Samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. The soil samples collected during initial excavation activities (S-1, S-2, SC-1) were submitted for laboratory analysis to Envirotech Analytical Laboratory (Envirotech), in Farmington, New Mexico. The soil and water samples collected during final excavation activities (S-4, SC-2, SC-3, and W-1) were submitted for laboratory analysis to Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. All samples were maintained on ice until delivery.

Soil and water samples were laboratory analyzed for:

- BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021.

Soil Samples were also laboratory analyzed for:

- TPH (GRO/DRO) per USEPA Method 8015.

### 2.3 Field Screening and Laboratory Analytical Results

Soil field screening results showed that VOC concentrations via OVM ranged from 0.0 ppm in S-1 and S-2 to 26.8 ppm in S-3. Results are included in Table 1 and on Figure 3.

Table 1. Soil Field Screening VOC Results  
 Lateral 10A-5 Pipeline Release Assessment, February 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>
<b>NNEPA/NMOCD Action Level*</b>			<b>100</b>
S-1	2/20/14	1 to 8.5	0.0
S-2	2/20/14	1 to 8.5	0.0
S-3	2/25/14	8.5	26.8
S-4	2/25/14	10	1.5
SC-1	2/20/14	Stockpile	NM
SC-2	2/25/14	Stockpile	0.6
SC-3	2/25/14	Stockpile	1.0

NM – Not Measured

\*NNEPA action levels determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993).

Soil laboratory analytical results showed that benzene, total BTEX, and TPH concentrations were below laboratory detection limits in all samples except SC-1, with a TPH concentration of 727 mg/kg. Results are included in Table 2 and on Figure 3. The laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results – BTEX and TPH  
 Lateral 10A-5 Pipeline Release Assessment, February 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Depth (ft)</i>	<i>Benzene (mg/Kg)</i>	<i>Total BTEX (mg/Kg)</i>	<i>TPH – GRO (mg/Kg)</i>	<i>TPH – DRO (mg/Kg)</i>
<b>NNEPA/NMOCD Action Level*</b>			<b>10</b>	<b>50</b>	<b>100</b>	
S-1	2/20/14	1 to 5.5	<0.05	<0.05	<4.99	<29.9
S-2	2/20/14	1 to 5.5	<0.05	<0.05	<5.00	<30.0
S-4	2/25/14	10	<0.024	<0.121	<2.4	<10
SC-1	2/20/14	Stockpile	<0.05	<0.05	<b>&lt;4.99</b>	<b>727</b>
SC-2	2/25/14	Stockpile	<0.024	<0.121	<2.4	<10
SC-3	2/25/14	Stockpile	<0.026	<0.130	<2.6	<10

\*NNEPA action levels determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

Water laboratory analytical results for benzene, toluene, ethylbenzene, and xylene concentrations were below laboratory detection limits in W-1. Laboratory analytical results are included in Table 3 and on Figure 3. The laboratory analytical report is attached.

Table 3. Water Laboratory Analytical Results – BTEX  
 Lateral 10A-5 Pipeline Release Assessment, February 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Benzene (µg/L)</i>	<i>Toluene (µg/L)</i>	<i>Ethyl- Benzene (µg/L)</i>	<i>Xylenes (µg/L)</i>
<i>WQCC Standards</i>		<i>10</i>	<i>750</i>	<i>750</i>	<i>620</i>
W-1	2/25/14	<2.0	<2.0	<2.0	<4.0

### 3.0 Conclusions and Recommendations

On February 20 and 25, 2014, AES conducted an assessment associated with a pipeline release on the Lateral 10A-5. NNEPA utilizes action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 30. Field screening of soil samples S-1 through S-4 and composite soil samples SC-2 and SC-3 showed VOC concentrations below the NMOCD action level of 100 ppm, with the highest VOC concentration reported in S-3 with 26.8 ppm in S-3. Soil laboratory analytical results showed that benzene, total BTEX, and TPH concentrations were below laboratory detection limits in all samples except SC-1, with a TPH concentration above the NMOCD action level of 100 mg/kg with 727 mg/kg, which was subsequently removed to the landfarm for proper disposal.

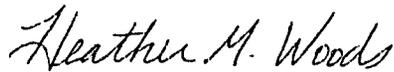
Additionally, water sample W-1 collected immediately downgradient of the release location showed that shallow groundwater does not appear to have been impacted as a result of the pipeline release, with concentrations for all parameters analyzed below laboratory detection limits and below applicable Water Quality Control Commission (WQCC) standards. Based on field screening and laboratory analytical results, no further work is recommended for the Lateral 10A-5 February 2014 pipeline release.

If you have any questions about this report or site conditions, please do not hesitate to contact Heather Woods at (505) 564-2281.

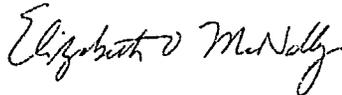
Sincerely,



David J. Reese  
Environmental Scientist



Heather M. Woods, P.G.  
Project Manager

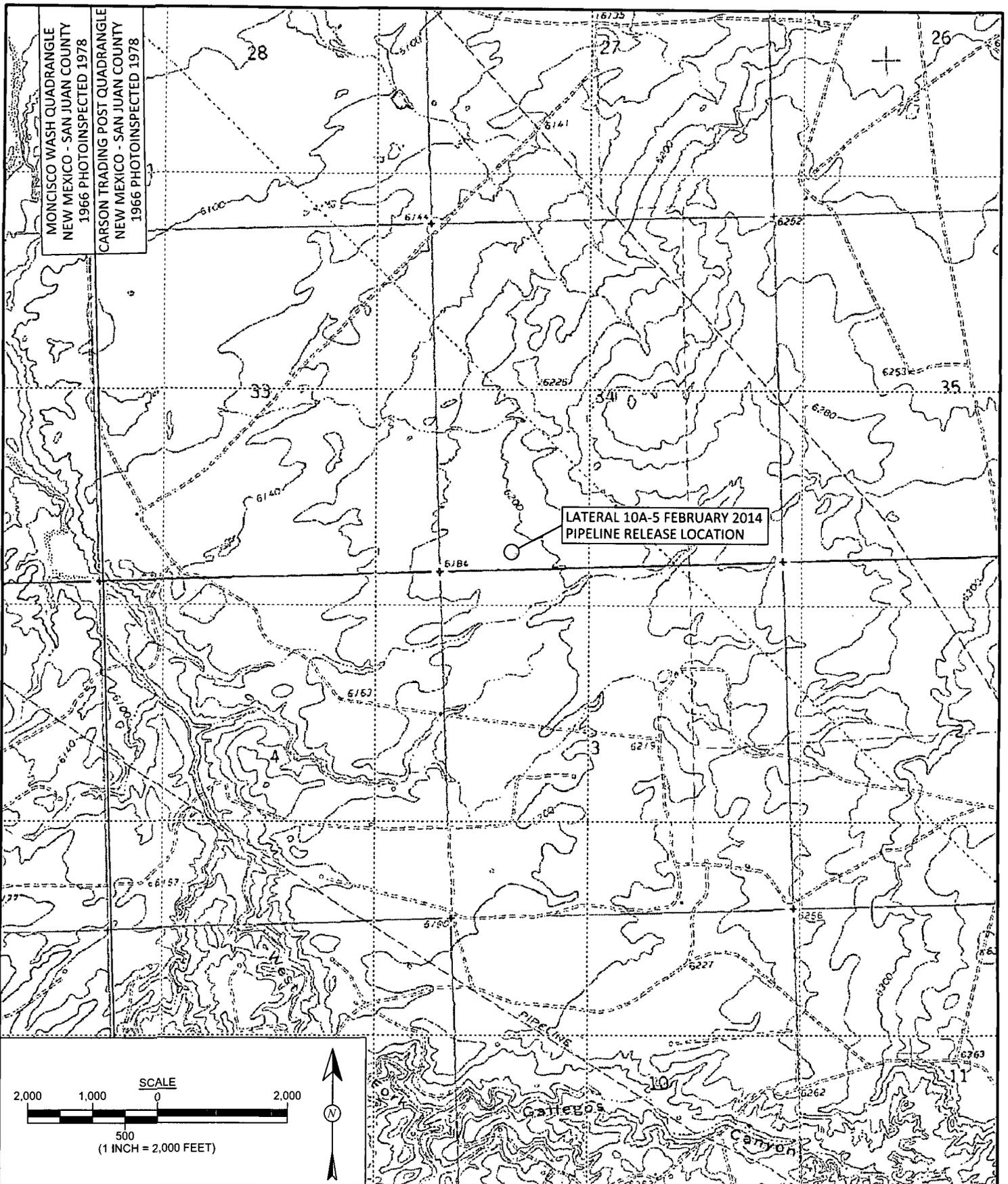


Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map
- Figure 3. Final Excavation Sample Locations and Results, February 2014
- Bill of Lading (Envirotech 46061)
- Photograph Log
- Laboratory Analytical Report (Envirotech P402048)
- Laboratory Analytical Reports (Hall 1402A02 and 1402985)

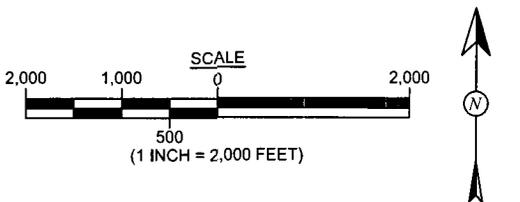
R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2014 Projects\Enterprise\Lateral 10A-5\Enterprise Lateral 10A-5 Release Report 050814.docx



MONCISO WASH QUADRANGLE  
 NEW MEXICO - SAN JUAN COUNTY  
 1966 PHOTOINSPECTED 1978

CARSON TRADING POST QUADRANGLE  
 NEW MEXICO - SAN JUAN COUNTY  
 1966 PHOTOINSPECTED 1978

LATERAL 10A-5 FEBRUARY 2014  
 PIPELINE RELEASE LOCATION

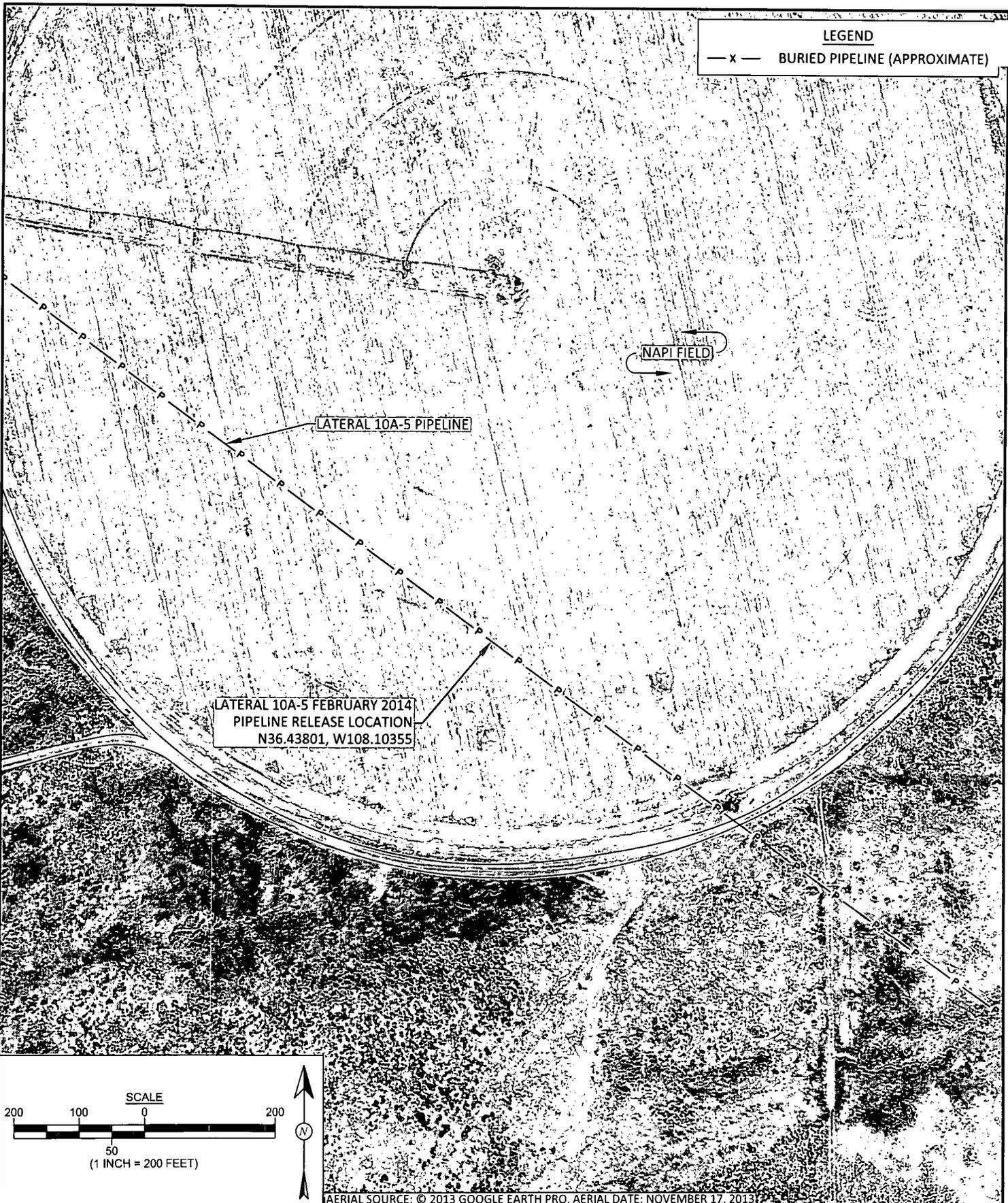


Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> March 7, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 24, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> April 24, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 24, 2014

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 ENTERPRISE FIELD SERVICES LLC  
 LATERAL 10A-5 FEBRUARY 2014 PIPELINE RELEASE  
 SW¼ SW¼, SECTION 34, T26N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.43801, W108.10355



Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 24, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 24, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> April 24, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 24, 2014

**FIGURE 2**

**AERIAL SITE MAP  
 FEBRUARY 2014**

ENTERPRISE FIELD SERVICES LLC  
 LATERAL 10A-5 FEBRUARY 2014 PIPELINE RELEASE  
 SW¼ SW¼, SECTION 34, T26N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.43801, W108.10355

**FIGURE 3**

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS  
FEBRUARY 2014**

ENTERPRISE FIELD SERVICES LLC  
LATERAL 10A-5 FEBRUARY 2014  
PIPELINE RELEASE  
SW¼ SW¼, SECTION 34, T26N, R12W  
SAN JUAN COUNTY, NEW MEXICO  
N36.43801, W108.10355



Animas Environmental Services, LLC

**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
April 24, 2014

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
April 24, 2014

**CHECKED BY:**  
H. Woods

**DATE CHECKED:**  
April 24, 2014

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
April 24, 2014

**LEGEND**

- SOIL SAMPLE LOCATIONS
- ⊕ WATER SAMPLE LOCATION
- P - BURIED PIPELINE (APPROXIMATE)

Field Sampling Results			
Sample ID	Date	Depth (ft)	OVM-PID (ppm)
<b>NNEPA/NMOCD ACTION LEVEL</b>			<b>100</b>
S-1	2/20/14	1 to 8.5	0.0
S-2	2/20/14	1 to 8.5	0.0
S-3	2/25/14	8.5	26.8
S-4	2/25/14	10	1.5
SC-1	2/20/14	Stockpile	NA
SC-2	2/25/14	Stockpile	0.6
SC-3	2/25/14	Stockpile	1.0

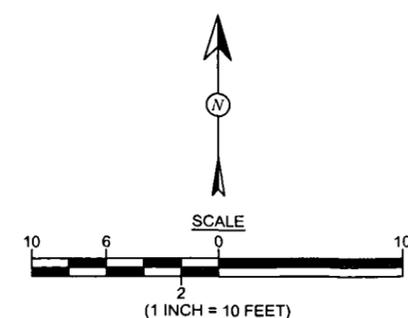
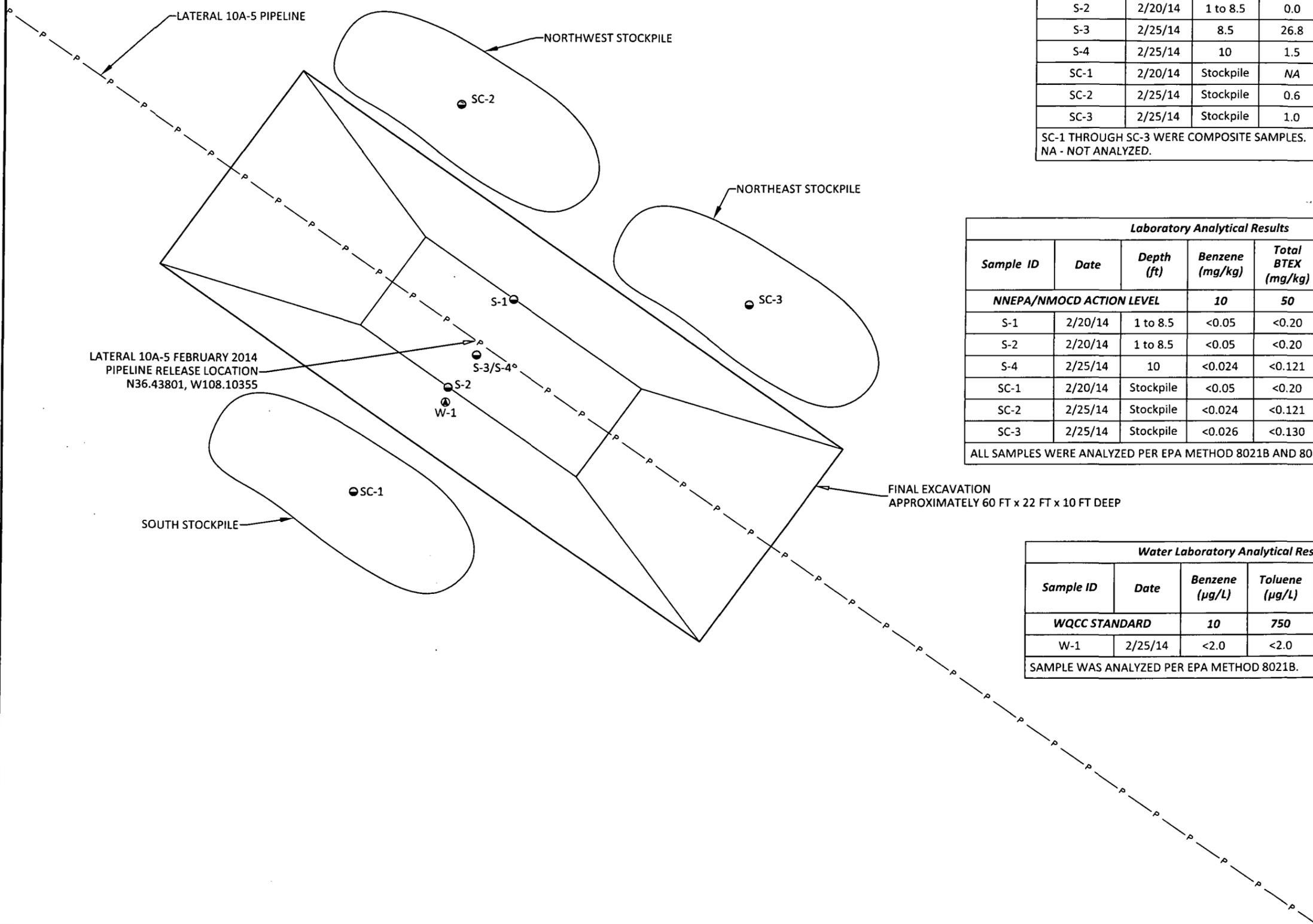
SC-1 THROUGH SC-3 WERE COMPOSITE SAMPLES.  
NA - NOT ANALYZED.

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
<b>NNEPA/NMOCD ACTION LEVEL</b>			<b>10</b>	<b>50</b>	<b>100</b>	
S-1	2/20/14	1 to 8.5	<0.05	<0.20	<4.99	<29.9
S-2	2/20/14	1 to 8.5	<0.05	<0.20	<5.00	<30.0
S-4	2/25/14	10	<0.024	<0.121	<2.4	<10
SC-1	2/20/14	Stockpile	<0.05	<0.20	<b>&lt;4.99</b>	<b>727</b>
SC-2	2/25/14	Stockpile	<0.024	<0.121	<2.4	<10
SC-3	2/25/14	Stockpile	<0.026	<0.130	<2.6	<10

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND 8015D.

Water Laboratory Analytical Results					
Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)
<b>WQCC STANDARD</b>		<b>10</b>	<b>750</b>	<b>750</b>	<b>620</b>
W-1	2/25/14	<2.0	<2.0	<2.0	<4.0

SAMPLE WAS ANALYZED PER EPA METHOD 8021B.





# Bill of Lading

MANIFEST # 46061  
 DATE 2-26-14 JOB # 97057-0626

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 Lat 10-A-5	LFII-5	CONIT SO.L.	H-29	10	-	DOUG FOUTZ	934	925	Ron Bright
2	" "	LFII-5	"	H-29	10	-	"	834	925	Dan Almy
3	" "	"	"	H-29	10	-	"	934	1028	Ron Bright
4	" "	"	"	H-29	10	-	"	834	1028	Dan Almy
					40					
RESULTS:		LANDFARM EMPLOYEE:		 EL Certification of above receipt & placement			NOTES:			
< 291	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								

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. Doug Foutz Const NAME Ron Bright SIGNATURE

COMPANY CONTACT Craig Foutz PHONE 325 4922 DATE 2-24-14

Signatures required prior to distribution of the legal document.

Photo #1	
Client: Enterprise Field Services, LLC	
Project: Lateral 10A-5 Pipeline Release	
Taken by: Heather Woods	
Date: February 20, 2014	
AES Project No. 140216	Description: View of initial excavation looking southeast.

Photo #2	
Client: Enterprise Field Services, LLC	
Project: Lateral 10A-5 Pipeline Release	
Taken by: Heather Woods	
Date: February 25, 2014	
AES Project No. 140216	Description: View of final excavation looking northwest.



## Analytical Report

### Report Summary

Client: Animas Environmental Services

Chain Of Custody Number: 16621

Samples Received: 2/20/2014 4:15:00PM

Job Number: 99083-0001

Work Order: P402048

Project Name/Location: Lateral 10A-5 Pipeline  
Release

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 2/26/14

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 2/26/14 2:00 pm

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Lateral 10A-5 Pipeline Release  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
26-Feb-14 14:04

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-1	P402048-01A	Soil	02/20/14	02/20/14	Glass Jar, 4 oz.
S-2	P402048-02A	Soil	02/20/14	02/20/14	Glass Jar, 4 oz.
SC-1	P402048-03A	Soil	02/20/14	02/20/14	Glass Jar, 4 oz.

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laboratory@envirotech-inc.com



Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Lateral 10A-5 Pipeline Release  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
26-Feb-14 14:04

S-1

P402048-01 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Toluene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Ethylbenzene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
p,m-Xylene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
o-Xylene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total Xylenes	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total BTEX	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		109 %				80-120	1409005	02/24/14	02/25/14	EPA 8021B
Surrogate: 1,3-Dichlorobenzene		104 %				80-120	1409005	02/24/14	02/25/14	EPA 8021B
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	4.99		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9		mg/kg	1	1409004	02/24/14	02/25/14	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Lateral 10A-5 Pipeline Release  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
26-Feb-14 14:04

S-2  
P402048-02 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Toluene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Ethylbenzene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
p,m-Xylene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
o-Xylene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total Xylenes	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total BTEX	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		110 %		80-120		1409005	02/24/14	02/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		106 %		80-120		1409005	02/24/14	02/25/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	5.00		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0		mg/kg	1	1409004	02/24/14	02/25/14	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Lateral 10A-5 Pipeline Release  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
26-Feb-14 14:04

SC-1  
P402048-03 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Toluene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Ethylbenzene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
p,m-Xylene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
o-Xylene	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total Xylenes	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Total BTEX	ND	0.05		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		100 %				80-120	1409005	02/24/14	02/25/14	EPA 8021B
Surrogate: Bromochlorobenzene		105 %				80-120	1409005	02/24/14	02/25/14	EPA 8021B
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	4.99		mg/kg	1	1409005	02/24/14	02/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	727	29.9		mg/kg	1	1409004	02/24/14	02/26/14	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Lateral 10A-5 Pipeline Release  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
26-Feb-14 14:04

**Volatile Organics by EPA 8021 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1409005 - Purge and Trap EPA 5030A**

**Blank (1409005-BLK1)**

Prepared: 24-Feb-14 Analyzed: 25-Feb-14

E	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	50.9		ug/L	50.0		102	80-120			
Surrogate: Bromochlorobenzene	52.6		"	50.0		105	80-120			

**Duplicate (1409005-DUP1)**

Source: P402048-01

Prepared: 24-Feb-14 Analyzed: 25-Feb-14

Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	53.2		ug/L	50.0		106	80-120			
Surrogate: Bromochlorobenzene	55.3		"	50.0		111	80-120			

**Matrix Spike (1409005-MS1)**

Source: P402048-01

Prepared: 24-Feb-14 Analyzed: 25-Feb-14

Benzene	47.7		ug/L	50.0	ND	95.4	39-150			
Toluene	47.4		"	50.0	ND	94.8	46-148			
Ethylbenzene	47.3		"	50.0	ND	94.7	32-160			
p,m-Xylene	95.0		"	100	ND	95.0	46-148			
o-Xylene	48.0		"	50.0	ND	96.0	46-148			
Surrogate: 1,3-Dichlorobenzene	52.4		"	50.0		105	80-120			
Surrogate: Bromochlorobenzene	54.5		"	50.0		109	80-120			

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Lateral 10A-5 Pipeline Release  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
26-Feb-14 14:04

**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1409004 - DRO Extraction EPA 3550C</b>										
<b>Blank (1409004-BLK1)</b>										
				Prepared: 24-Feb-14 Analyzed: 25-Feb-14						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
<b>Duplicate (1409004-DUP1)</b>										
				Source: P402048-01 Prepared: 24-Feb-14 Analyzed: 25-Feb-14						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30	
<b>Matrix Spike (1409004-MS1)</b>										
				Source: P402048-01 Prepared: 24-Feb-14 Analyzed: 25-Feb-14						
Diesel Range Organics (C10-C28)	173	31.6	mg/kg	263	ND	65.8	75-125			SPK 1

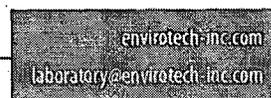
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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name: Lateral 10A-5 Pipeline Release Project Number: 99083-0001 Project Manager: Heather Woods	Reported: 26-Feb-14 14:04
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**Nonhalogenated Organics by 8015 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1409005 - Purge and Trap EPA 5030A</b>										
<b>Blank (1409005-BLK1)</b>				Prepared: 24-Feb-14 Analyzed: 25-Feb-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
<b>Duplicate (1409005-DUP1)</b>				Source: P402048-01 Prepared: 24-Feb-14 Analyzed: 25-Feb-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
<b>Matrix Spike (1409005-MS1)</b>				Source: P402048-01 Prepared: 24-Feb-14 Analyzed: 25-Feb-14						
Gasoline Range Organics (C6-C10)	0.44		mg/L	0.450	ND	98.0	75-125			

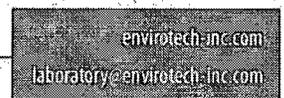
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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Lateral 10A-5 Pipeline Release  
Project Number: 99083-0001  
Project Manager: Heather Woods

**Reported:**  
26-Feb-14 14:04

### Notes and Definitions

SPK I The spike recovery for this QC sample is outside of control limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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laboratory@envirotech-inc.com

# CHAIN OF CUSTODY RECORD

16621

Client: <i>Animas Environmental Services</i>		Project Name / Location: <i>Lateral 10A-5 Pipeline Release</i>		ANALYSIS / PARAMETERS													
Email results to: <i>hwoods@animasenvironmental.com</i> <i>tjlong@eprod.com</i>		Sampler Name: <i>H. Woods / C. Skyles</i>		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
Client Phone No.:		Client No.: <i>99083-0001</i>															

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl	acid															
S-1	2/20/14	1425	P402048-01	1-4oz Glass			X	X	X											1	✓	
S-2	2/20/14	1429	P402048-02	1-4oz Glass			X	X	X											1	✓	
SC-1	2/20/14	1500	P402048-03	1-4oz Glass			X	X	X											1	✓	

Relinquished by: (Signature) <i>Heath M. Woods</i>	Date <i>2/20/14</i>	Time <i>1612</i>	Received by: (Signature) <i>Done 3/30/14</i>	Date <i>2/20/14</i>	Time <i>1815</i>
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>					

Sample(s) dropped off after hours to secure drop off area.



8.2  
5.1  
7.4



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)

March 03, 2014

Heather Woods

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 716-2787  
FAX (505) 324-2022

RE: Lateral 10A-5

OrderNo.: 1402A02

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/26/2014 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](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 in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1402A02

Date Reported: 3/3/2014

CLIENT: Animas Environmental Services

Client Sample ID: W-1

Project: Lateral 10A-5

Collection Date: 2/25/2014 12:00:00 PM

Lab ID: 1402A02-001

Matrix: AQUEOUS

Received Date: 2/26/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: JMP
Methyl tert-butyl ether (MTBE)	ND	5.0	p	µg/L	2	2/27/2014 12:33:45 PM	R17017
Benzene	ND	2.0	p	µg/L	2	2/27/2014 12:33:45 PM	R17017
Toluene	ND	2.0	p	µg/L	2	2/27/2014 12:33:45 PM	R17017
Ethylbenzene	ND	2.0	p	µg/L	2	2/27/2014 12:33:45 PM	R17017
Xylenes, Total	ND	4.0	p	µg/L	2	2/27/2014 12:33:45 PM	R17017
1,2,4-Trimethylbenzene	ND	2.0	p	µg/L	2	2/27/2014 12:33:45 PM	R17017
1,3,5-Trimethylbenzene	ND	2.0	p	µg/L	2	2/27/2014 12:33:45 PM	R17017
Surr: 4-Bromofluorobenzene	102	85-136	p	%REC	2	2/27/2014 12:33:45 PM	R17017

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
	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#: 1402A02

03-Mar-14

**Client:** Animas Environmental Services

**Project:** Lateral 10A-5

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R17017</b>	RunNo:	<b>17017</b>					
Prep Date:		Analysis Date:	<b>2/27/2014</b>	SeqNo:	<b>489520</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
o-Xylylene	ND	1.0								
m-Xylylene, Total	ND	2.0								
p-Xylylene, Total	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	21		20.00		107	85	136			

Sample ID	<b>100NG BTEX LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R17017</b>	RunNo:	<b>17017</b>					
Prep Date:		Analysis Date:	<b>2/27/2014</b>	SeqNo:	<b>489521</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	88.8	71.1	128			
Benzene	19	1.0	20.00	0	93.3	80	120			
Toluene	19	1.0	20.00	0	94.2	80	120			
o-Xylylene	19	1.0	20.00	0	95.5	80	120			
m-Xylylene, Total	58	2.0	60.00	0	97.4	80	120			
p-Xylylene, Total	19	1.0	20.00	0	97.3	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	99.0	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		95.7	85	136			

Sample ID	<b>1402A02-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>W-1</b>	Batch ID:	<b>R17017</b>	RunNo:	<b>17017</b>					
Prep Date:		Analysis Date:	<b>2/27/2014</b>	SeqNo:	<b>489526</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	35	5.0	40.00	0	88.0	62.4	135			
Benzene	38	2.0	40.00	0.7400	94.3	71	129			
Toluene	40	2.0	40.00	1.028	96.5	68.4	135			
o-Xylylene	40	2.0	40.00	0	99.1	69.4	135			
m-Xylylene, Total	120	4.0	120.0	1.084	100	72.4	135			
p-Xylylene, Total	40	2.0	40.00	0.5160	98.8	67.1	135			
1,3,5-Trimethylbenzene	41	2.0	40.00	0.4560	101	75.9	130			
Surr: 4-Bromofluorobenzene	46		40.00		116	85	136			

**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#: 1402A02

03-Mar-14

Client: Animas Environmental Services

Project: Lateral 10A-5

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	35	5.0	40.00	0	86.5	62.4	135	1.71	20	
Benzene	38	2.0	40.00	0.7400	92.0	71	129	2.40	20	
Toluene	38	2.0	40.00	1.028	93.4	68.4	135	3.17	20	
Ethylbenzene	39	2.0	40.00	0	97.1	69.4	135	2.00	20	
Xylenes, Total	120	4.0	120.0	1.084	97.6	72.4	135	2.41	20	
1,2,4-Trimethylbenzene	40	2.0	40.00	0.5160	98.1	67.1	135	0.702	20	
1,3,5-Trimethylbenzene	40	2.0	40.00	0.4560	99.2	75.9	130	1.65	20	
Surr: 4-Bromofluorobenzene	46		40.00		114	85	136	0	0	

## 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

**Sample Log-In Check List**

Client Name: Animas Environmental      Work Order Number: 1402A02      RcptNo: 1

Received by/date: *[Signature]*      *02/26/14*

Logged By: Lindsay Mangin      2/26/2014 10:15:00 AM      *[Signature]*

Completed By: Lindsay Mangin      2/26/2014 12:53:33 PM      *[Signature]*

Reviewed By: *AK 02/26/14*

**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	1.6	Good	Yes			





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)

February 27, 2014

Heather Woods

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 716-2787  
FAX (505) 324-2022

RE: Lateral 101A-5

OrderNo.: 1402985

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/26/2014 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](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', written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services  
**Project:** Lateral 101A-5  
**Lab ID:** 1402985-001

**Client Sample ID:** S-4  
**Collection Date:** 2/25/2014 12:13:00 PM  
**Received Date:** 2/26/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2014 1:35:39 PM	11903
Surr: DNOP	85.6	66-131		%REC	1	2/26/2014 1:35:39 PM	11903
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	2.4		mg/Kg	1	2/26/2014 11:41:31 AM	R16966
Surr: BFB	82.3	74.5-129		%REC	1	2/26/2014 11:41:31 AM	R16966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.024		mg/Kg	1	2/26/2014 11:41:31 AM	R16966
Toluene	ND	0.024		mg/Kg	1	2/26/2014 11:41:31 AM	R16966
Ethylbenzene	ND	0.024		mg/Kg	1	2/26/2014 11:41:31 AM	R16966
Xylenes, Total	ND	0.049		mg/Kg	1	2/26/2014 11:41:31 AM	R16966
Surr: 4-Bromofluorobenzene	94.8	80-120		%REC	1	2/26/2014 11:41:31 AM	R16966

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
	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: Animas Environmental Services

Client Sample ID: SC-2

Project: Lateral 101A-5

Collection Date: 2/25/2014 12:20:00 PM

Lab ID: 1402985-002

Matrix: MEOH (SOIL)

Received Date: 2/26/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2014 1:57:54 PM	11903
Surr: DNOP	85.0	66-131		%REC	1	2/26/2014 1:57:54 PM	11903
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	2.4		mg/Kg	1	2/26/2014 12:10:02 PM	R16966
Surr: BFB	82.3	74.5-129		%REC	1	2/26/2014 12:10:02 PM	R16966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.024		mg/Kg	1	2/26/2014 12:10:02 PM	R16966
Toluene	ND	0.024		mg/Kg	1	2/26/2014 12:10:02 PM	R16966
Ethylbenzene	ND	0.024		mg/Kg	1	2/26/2014 12:10:02 PM	R16966
Xylenes, Total	ND	0.049		mg/Kg	1	2/26/2014 12:10:02 PM	R16966
Surr: 4-Bromofluorobenzene	93.9	80-120		%REC	1	2/26/2014 12:10:02 PM	R16966

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
	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:** Animas Environmental Services  
**Project:** Lateral 101A-5  
**Lab ID:** 1402985-003

**Client Sample ID:** SC-3  
**Collection Date:** 2/25/2014 12:23:00 PM  
**Received Date:** 2/26/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2014 2:20:05 PM	11903
Surr: DNOP	85.3	66-131		%REC	1	2/26/2014 2:20:05 PM	11903
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	2.6		mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Surr: BFB	82.1	74.5-129		%REC	1	2/26/2014 12:38:36 PM	R16966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.026		mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Toluene	ND	0.026		mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Ethylbenzene	ND	0.026		mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Xylenes, Total	ND	0.052		mg/Kg	1	2/26/2014 12:38:36 PM	R16966
Surr: 4-Bromofluorobenzene	93.9	80-120		%REC	1	2/26/2014 12:38:36 PM	R16966

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	
	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	Page 3 of 6
	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#: 1402985

27-Feb-14

Client: Animas Environmental Services  
 Project: Lateral 101A-5

Sample ID	MB-11896	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11896	RunNo:	16968					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488286	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.2		10.00		81.5	66	131			

Sample ID	LCS-11896	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11896	RunNo:	16968					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488287	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.9	66	131			

Sample ID	MB-11903	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11903	RunNo:	16968					
Prep Date:	2/26/2014	Analysis Date:	2/26/2014	SeqNo:	488291	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	8.0		10.00		79.6	66	131			

Sample ID	LCS-11903	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11903	RunNo:	16968					
Prep Date:	2/26/2014	Analysis Date:	2/26/2014	SeqNo:	488292	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.6	60.8	145			
Surr: DNOP	4.0		5.000		80.8	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#: 1402985

27-Feb-14

Client: Animas Environmental Services

Project: Lateral 101A-5

Sample ID	MB-11892 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R16966	RunNo:	16966					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488600	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	810		1000		80.6	74.5	129			

Sample ID	LCS-11892 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R16966	RunNo:	16966					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488601	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.8	71.7	134			
Surr: BFB	880		1000		88.0	74.5	129			

Sample ID	MB-11892	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	11892	RunNo:	16966					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488617	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	810		1000		80.6	74.5	129			

Sample ID	LCS-11892	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	11892	RunNo:	16966					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488618	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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#: 1402985

27-Feb-14

Client: Animas Environmental Services

Project: Lateral 101A-5

Sample ID	MB-11892 MK	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R16966	RunNo:	16966					
Prep Date:		Analysis Date:	2/26/2014	SeqNo:	488628	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	0.92		1.000		92.1	80	120			

Sample ID	LCS-11892 MK	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R16966	RunNo:	16966					
Prep Date:		Analysis Date:	2/26/2014	SeqNo:	488629	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
benzene	1.1	0.050	1.000	0	108	80	120			
toluene	1.1	0.050	1.000	0	111	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.4	0.10	3.000	0	114	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

Sample ID	MB-11892	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	11892	RunNo:	16966					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488640	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.1	80	120			

Sample ID	LCS-11892	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	11892	RunNo:	16966					
Prep Date:	2/25/2014	Analysis Date:	2/26/2014	SeqNo:	488641	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

**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 |  |

**Sample Log-In Check List**

Client Name: **Animas Environmental** Work Order Number: **1402985** RcptNo: **1**

Received by/date: *[Signature]* **02/26/14**

Logged By: **Ashley Gallegos** **2/26/2014 10:15:00 AM** *[Signature]*

Completed By: **Ashley Gallegos** **2/26/2014 10:24:15 AM** *[Signature]*

Reviewed By: *[Signature]* **02/26/14**

**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? Yes  No
- # of preserved bottles checked for pH: **<<2 or >>12-unless-noted**

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_
- (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.)

**Special Handling (if applicable)**

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No.	Temp. °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.6	Good	Yes			



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 5D-2	Facility Type: Natural Gas Gathering Line
Surface Owner: Private	Mineral Owner: BLM
API No.	

**LOCATION OF RELEASE**

Unit Letter <b>B</b>	Section <b>15</b>	Township <b>29N</b>	Range <b>12W</b>	Feet from the <b>753</b>	<u>North</u> South Line	Feet from the <b>1962</b>	<u>East</u> West Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	-----------------------------	-------------------------	------------------------------	-----------------------	---------------------------

Latitude 36.73179 Longitude -108.08428

**NATURE OF RELEASE**

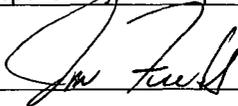
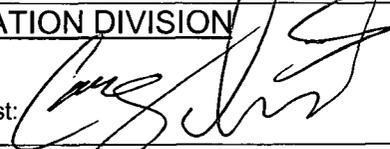
Type of Release: Natural Gas Release	Volume of Release: <b>Unknown</b>	Volume Recovered: <b>None</b>
Source of Release: Natural Gas Gathering Line	Date and Hour of Occurrence: <b>2/11/2014 @ 4:00 p.m.</b>	Date and Hour of Discovery: <b>2/11/2014 @ 4:00 p.m.</b>
Was Immediate Notice Given? Required <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not	If YES, To Whom? <b>OIL CONS. DIV DIST. 3</b>	
By Whom?	Date and Hour <b>MAY 19 2014</b>	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\* The release is in a small un-named arroyo on Crouch Mesa.

Describe Cause of Problem and Remedial Action Taken.\* On 9/20/2013, a line locator responding to a N.M. One-Call request smelled gas. Another technician was dispatched and arrived at around 4:34 PM MST. Using a leak detector, the technician confirmed hydrocarbons were present. The Lateral 5D-2 pipeline was shut in and pressure drops were observed in the line, confirming a leak. The two wells feeding the line were isolated, locked and tagged out, and blown down to 0 psig. Investigation activities were completed on October 8, 2013.

Describe Area Affected and Cleanup Action Taken.\* After the investigation activities were complete, it was determined that subsurface contaminant concentrations were minimal. 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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>5/29/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>5-13-2014</u>	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

#NCS 1414931202

25



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

April 28, 2014

Thomas Long  
Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, New Mexico 87401

Via electronic mail with delivery confirmation receipt to:  
[tjlong@eprod.com](mailto:tjlong@eprod.com)

**RE: Release Assessment Report  
Lateral 5D-2 Pipeline Release  
NW¼ NE¼, Section 15, T29N, R12W  
San Juan County, New Mexico**

**OIL CONS. DIV DIST. 3**

**MAY 19 2014**

Dear Mr. Long:

On September 26 and 27, 2013, Animas Environmental Services, LLC (AES) completed an assessment associated with a suspected release from the Enterprise Field Services, LLC (Enterprise) Lateral 5D-2 pipeline. On October 8, 2013, AES also advanced two soil borings in the wash along the pipeline to aid in locating the suspected release. No release location was confirmed during the assessment activities, and a portion of the pipeline has been filled with inert gas and capped for abandonment.

---

## 1.0 Site Information

### 1.1 Location

Location – NW¼ NE¼, Section 15, T29N, R12W, San Juan County, New Mexico

Latitude/Longitude – N36.73179 and W108.08428, respectively

Surface Owner – Private

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map

### 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The suspected release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** Depth to groundwater is between 50 to 100 feet below ground surface (bgs) based on a depth to groundwater reported in nearby wells registered with the New Mexico Office of the State Engineer. (10 points)
- **Wellhead Protection Area:** The suspected release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The suspected release area is located within 200 feet of an unnamed ephemeral wash draining to the San Juan River. (30 points)

The ranking score of 30 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO). An action level of 100 parts per million (ppm) volatile organic compound (VOCs) concentrations via organic vapor meter (OVM) may be substituted for laboratory analysis of benzene and total BTEX.

### *1.3 Assessment and Mitigation*

A suspected release was discovered by a third-party line locator on September 20, 2013, and an Enterprise technician was dispatched to the location to remove the line from service. On September 26 and 27, 2013, Enterprise contractors completed an excavation along the pipeline in the suspected release area. AES provided field screening for excavation guidance and prior to backfilling the excavation, collected five confirmation soil samples for field screening and laboratory analysis from the walls and base of the final excavation, as well as two confirmation soil samples from the stockpiled soils. No release location was confirmed within the final excavation area. The final excavation measured approximately 47 feet by 15 feet by 9 feet deep and was backfilled with the stockpiled soil. Soil sample locations and final excavation extents are included on Figure 3.

On October 8, 2013, AES returned to the location and advanced two soil borings in the wash to the east of the release location, each boring to a total depth of 20 feet and 24 feet bgs. Soil borings were completed with a GeoProbe DT 6620 track-mounted direct push rig operated by Earth Worx, Los Lunas, New Mexico. Soil samples were collected from continuously driven core-barrel samplers with a diameter of 3.25 inches during advancement of the borings. At 4-foot intervals, a soil sample was collected from the core barrel sampler and transferred to appropriately labeled sample containers. For each soil boring, a Soil Boring Log was completed. These logs recorded sample identification, depth collected, and method of collection, as well as observations of soil moisture, color, grain size, contaminant presence, and overall stratigraphy. The local site lithology consisted of poorly graded sand underlain by clayey sand to sandy clay. No groundwater was observed in the borings at the time of drilling. Following field

activities, the pipeline was blown down with inert nitrogen gas and capped from approximately N36.73162, W108.08703 to N36.73197, W108.08178. Soil boring locations are included on Figure 4. A photograph log and soil boring logs are included in the Appendix.

---

## 2.0 Soil Sampling

Five soil samples (SC-1 through SC-5) were collected from the walls and the base of the final excavation during the assessment in September 2013. Two composite samples (SC-6 and SC-7) were also collected from the stockpiled soil. Fourteen samples were also collected from two soil borings (SB-1 and SB-2) advanced in the wash in October 2013. Each sample was field screened for VOCs, and selected samples were also field analyzed for TPH. Samples SC-2 and SC-5 were submitted for laboratory analysis.

### 2.1 Field Sampling

#### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) OVM. Before beginning field screening, the PID-OVM was first calibrated with 100 ppm isobutylene gas.

#### 2.1.2 Total Petroleum Hydrocarbons

Selected soil samples were also analyzed in the field for TPH per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

### 2.2 Laboratory Analyses

Samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Both soil samples were laboratory analyzed for:

- TPH (GRO/DRO) per USEPA Method 8015D.

Additionally, soil sample SC-2 was laboratory analyzed for:

- BTEX per USEPA Method 8021B.

### 2.3 Field Sampling and Laboratory Analytical Results

On September 26 and 27, 2013, soil field screening results for the excavation showed that VOC concentrations via OVM ranged from 0.0 ppm in SC-4 through SC-7 up to 3.3 ppm in SC-2. Field TPH concentrations ranged from 64.8 mg/kg in SC-3 and SC-4 up to 155 mg/kg in SC-5. On October 8, 2013, soil field screening results for the soil borings showed that VOC concentrations via OVM were 0.0 ppm for all the samples collected, except for SB-2 at 0 to 4 feet with 7.8 ppm. Field TPH concentration for SB-2 at 12 to 16 feet was 87.3 mg/kg. The AES Field Sampling Report is attached.

Table 1. Field Sampling VOC and TPH Results  
 Lateral 5D-2 Pipeline Release Assessment, September and October 2013

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
<b>NMOCD Action Level*</b>			<b>100</b>	<b>100</b>
SC-1	9/26/13	1 to 9	1.8	80.9
SC-2	9/26/13	9	3.3	94.4
SC-3	9/26/13	1 to 9	1.5	64.8
SC-4	9/27/13	1 to 9	0.0	64.8
SC-5	9/27/13	1 to 9	0.0	<b>155</b>
SC-6	9/27/13	Stockpile	0.0	75.5
SC-7	9/27/13	Stockpile	0.0	83.6
SB-1	10/8/13	0 to 4	0.0	NA
		4 to 6.5	0.0	NA
		6.5 to 8	0.0	NA
		8 to 12	0.0	NA
		12 to 16	0.0	NA
		16 to 20	0.0	NA
SB-2	10/8/13	0 to 4	7.8	NA
		4 to 8	0.0	NA
		8 to 12	0.0	NA
		12 to 16	0.0	87.3
		16 to 19.5	0.0	NA
		19.5 to 20	0.0	NA
		20 to 21	0.0	NA

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>Field TPH (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>100</b>	<b>100</b>
SB-2	10/8/13	21 to 24	0.0	NA

NA – not analyzed

\*Action level determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

Laboratory analytical results showed that benzene and total BTEX concentrations were below laboratory detection limits for SC-2. TPH (GRO/DRO) concentrations were also below the laboratory detection limits in SC-2 and SC-5. Laboratory analytical results are included in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
 Lateral 5D-2 Pipeline Release Assessment, September and October 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>TPH – GRO (mg/kg)</i>	<i>TPH – DRO (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>10</b>	<b>50</b>	<b>100</b>	
SC-2	9/26/13	9	<0.047	<0.234	<4.7	<10
SC-5	9/27/13	1 to 9	NA	NA	<4.7	<10

NA – not analyzed

\*Action level determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

### 3.0 Conclusions and Recommendations

Action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 30. Field screening of SC-1 through SC-7 and samples from SB-1 and SB-2 showed VOC concentrations below the NMOCD action level of 100 ppm. Field TPH concentrations were also below the NMOCD action level of 100 mg/kg in all the samples collected, except for SC-5 with 155 mg/kg. However, laboratory analytical results reported benzene, total BTEX, and TPH below the applicable NMOCD action levels in SC-2 and SC-5.

Based on field sampling and laboratory results of the final excavation extents and adjacent wash area for petroleum contaminated soils, benzene, total BTEX, and TPH concentrations are below the applicable NMOCD action levels. No further work is recommended for the assessed portions of the Lateral 5D-2 pipeline. Should the

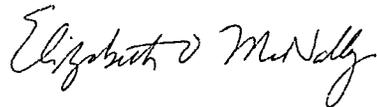
suspected pipeline release be located in the future, additional assessment may be required at that time.

If you have any questions about this report or site conditions, please do not hesitate to contact me at (505) 564-2281.

Sincerely,



Heather Woods, P.G.  
Project Manager

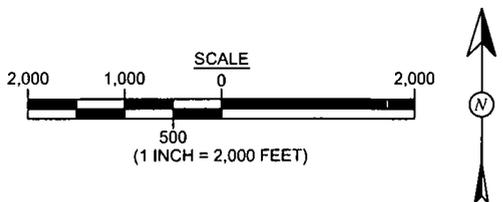
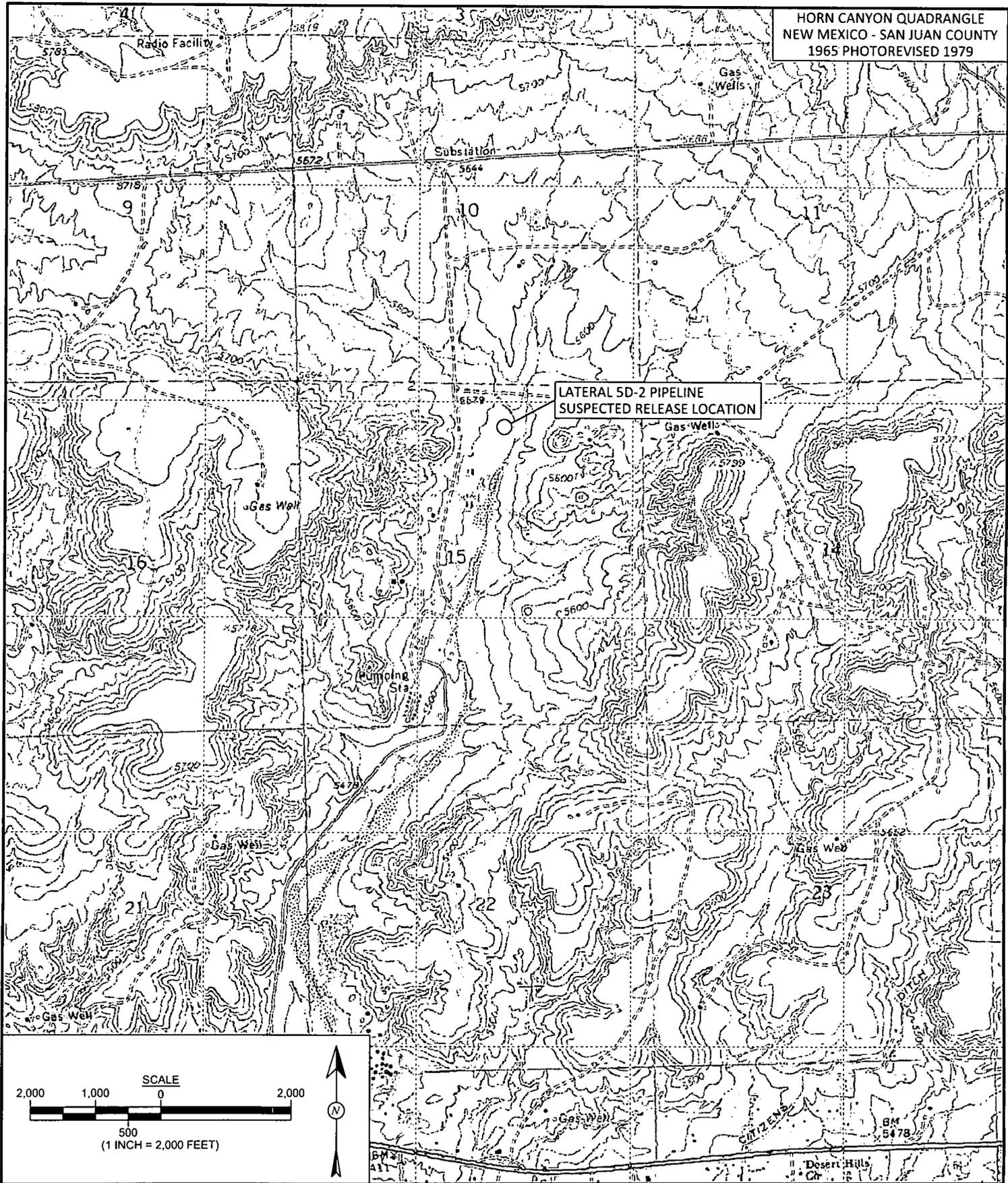


Elizabeth McNally, P.E.

**Attachments:**

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, September and October 2013
- Figure 3. Release Assessment Sample Locations and Results, September 2013
- Figure 4. Soil Boring Locations and Results, October 2013
- AES Field Sampling Report
- Photograph Log
- Soil Boring Logs
- Laboratory Analytical Report (Hall 1309E35)

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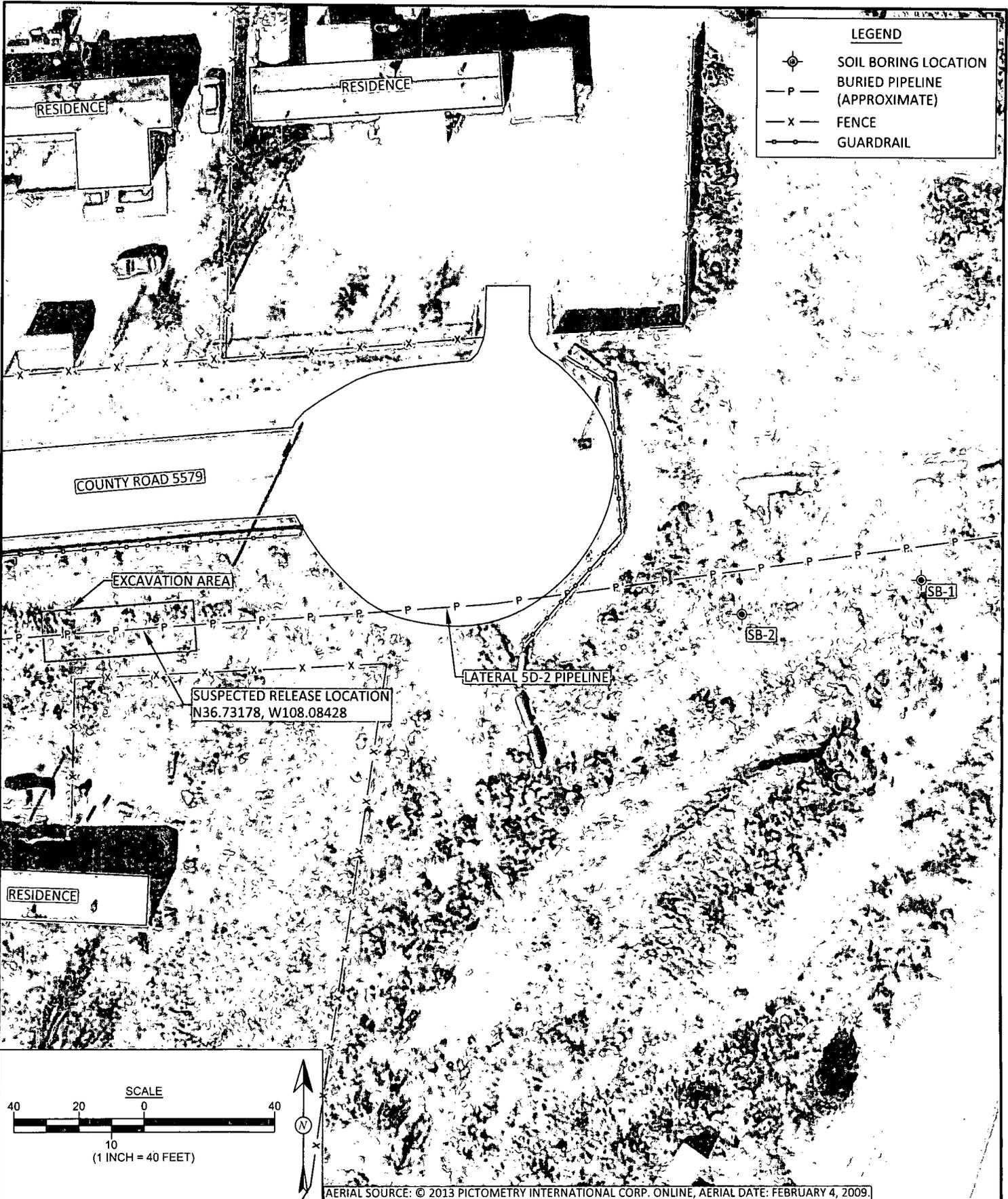


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 21, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 21, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> April 21, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 21, 2014

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 5D-2 SEPTEMBER 2013 PIPELINE RELEASE  
 NW¼ NE¼, SECTION 15, T29N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.73178, W108.08428



<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 21, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 21, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> April 21, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 21, 2014

**FIGURE 2**

**AERIAL SITE MAP**  
**SEPTEMBER AND OCTOBER 2013**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 5D-2 SEPTEMBER 2013 PIPELINE RELEASE  
 NW¼ NE¼, SECTION 15, T29N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.73178, W108.08428

**FIGURE 3**

**RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS**  
**SEPTEMBER 2013**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 5D-2 SEPTEMBER 2013  
 PIPELINE RELEASE  
 NW¼ NE¼, SECTION 15, T29N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.73178, W108.08428

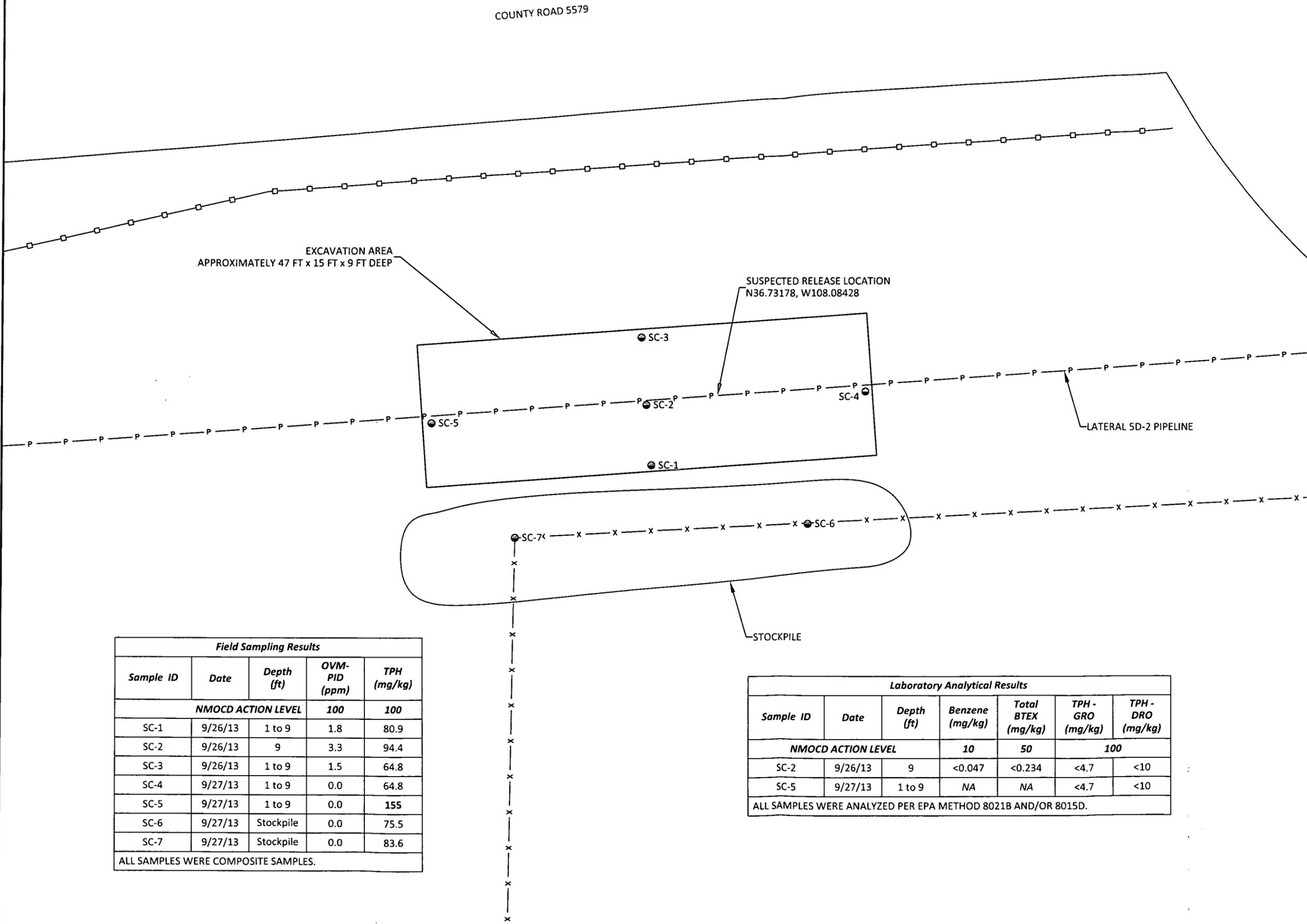


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 22, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 22, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> April 22, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 22, 2014

**LEGEND**

- SAMPLE LOCATIONS
- P— BURIED PIPELINE (APPROXIMATE)
- X— FENCE
- GUARDRAIL

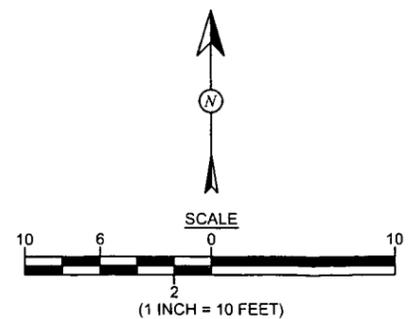


Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>100</b>	<b>100</b>
SC-1	9/26/13	1 to 9	1.8	80.9
SC-2	9/26/13	9	3.3	94.4
SC-3	9/26/13	1 to 9	1.5	64.8
SC-4	9/27/13	1 to 9	0.0	64.8
SC-5	9/27/13	1 to 9	0.0	<b>155</b>
SC-6	9/27/13	Stockpile	0.0	75.5
SC-7	9/27/13	Stockpile	0.0	83.6

ALL SAMPLES WERE COMPOSITE SAMPLES.

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>10</b>	<b>50</b>	<b>100</b>	
SC-2	9/26/13	9	<0.047	<0.234	<4.7	<10
SC-5	9/27/13	1 to 9	NA	NA	<4.7	<10

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND/OR 8015D.



**FIGURE 4**

**SOIL BORING LOCATIONS AND RESULTS**  
**OCTOBER 2013**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL SD-2 SEPTEMBER 2013  
 PIPELINE RELEASE  
 NW¼, NE¼, SECTION 15, T29N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.73178, W108.08428

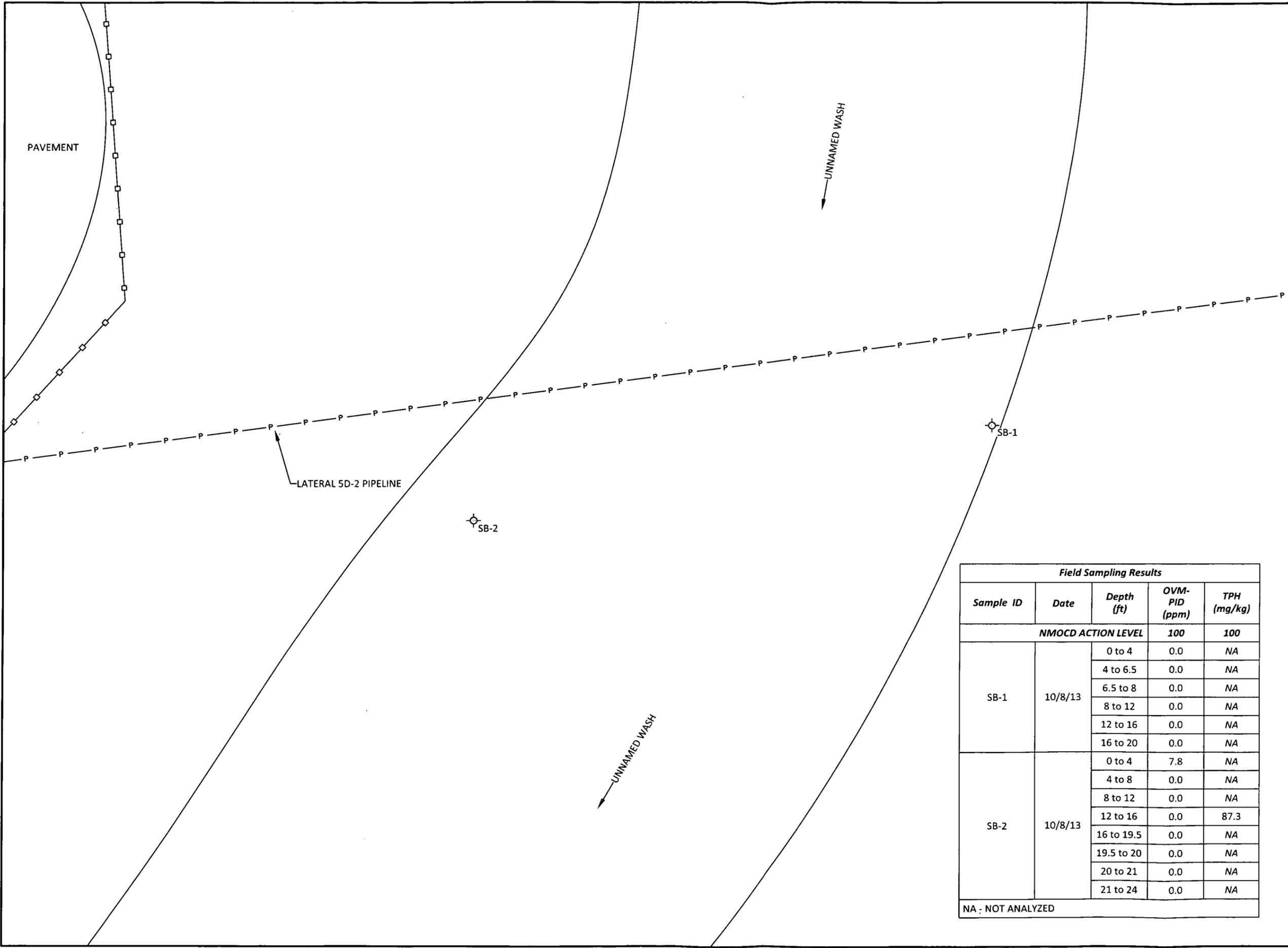


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 22, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 22, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> April 22, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 22, 2014

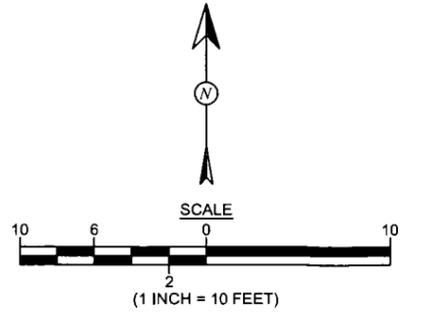
**LEGEND**

- SOIL BORING LOCATION
- BURIED PIPELINE (APPROXIMATE)
- GUARDRAIL



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>100</b>	<b>100</b>
SB-1	10/8/13	0 to 4	0.0	NA
		4 to 6.5	0.0	NA
		6.5 to 8	0.0	NA
		8 to 12	0.0	NA
		12 to 16	0.0	NA
		16 to 20	0.0	NA
SB-2	10/8/13	0 to 4	7.8	NA
		4 to 8	0.0	NA
		8 to 12	0.0	NA
		12 to 16	0.0	87.3
		16 to 19.5	0.0	NA
		19.5 to 20	0.0	NA
		20 to 21	0.0	NA
21 to 24	0.0	NA		

NA - NOT ANALYZED



# AES Field Sampling Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: Enterprise Field Services, LLC

Project Location: Lateral 5D-2 September 2013 Pipeline Release

Dates: 9/26/14, 9/27/14 and 10/8/13

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	9/26/2013	10:30	1.8	80.9	16:33	20.0	1	HMW
SC-2	9/26/2013	10:32	3.3	94.4	18:43	20.0	1	HMW
SC-3	9/26/2013	10:34	1.5	64.8	16:41	20.0	1	HMW
SC-4	9/27/2013	10:40	0.0	64.8	16:49	20.0	1	HMW
SC-5	9/27/2013	10:46	0.0	155	16:55	20.0	1	HMW
SC-6	9/27/2013	10:59	0.0	75.5	17:01	20.0	1	HMW
SC-7	9/27/2013	11:01	0.0	83.6	17:06	20.0	1	HMW
SB-1 @ 0-4'	9/12/2013	13:25	0.0	Not Analyzed for TPH				
SB-1 @ 4-6.5'	9/12/2013	13:26	0.0	Not Analyzed for TPH				
SB-1 @ 6.5-8'	9/12/2013	13:26	0.0	Not Analyzed for TPH				
SB-1 @ 8-12'	9/12/2013	13:29	0.0	Not Analyzed for TPH				
SB-1 @ 12-16'	9/12/2013	13:33	0.0	Not Analyzed for TPH				
SB-1 @ 16-20'	9/12/2013	13:35	0.0	Not Analyzed for TPH				

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-2 @ 0-4'	10/8/2013	13:47	0.0	Not Analyzed for TPH				
SB-2 @ 4-8'	10/8/2013	13:49	0.0	Not Analyzed for TPH				
SB-2 @ 8-12'	10/8/2013	13:52	0.0	Not Analyzed for TPH				
SB-2 @ 12-16'	10/8/2013	13:55	0.0	87.3	14:38	20.0	1	HMW
SB-2 @ 16-19.5'	10/8/2013	13:58	0.0	Not Analyzed for TPH				
SB-2 @ 19.5-20'	10/8/2013	14:00	0.0	Not Analyzed for TPH				
SB-2 @ 20-21'	10/8/2013	14:03	0.0	Not Analyzed for TPH				
SB-2 @ 21-24'	10/8/2013	14:03	0.0	Not Analyzed for TPH				

DF Dilution Factor  
NA Not Analyzed  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitation Limit  
\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Leather M Woods*

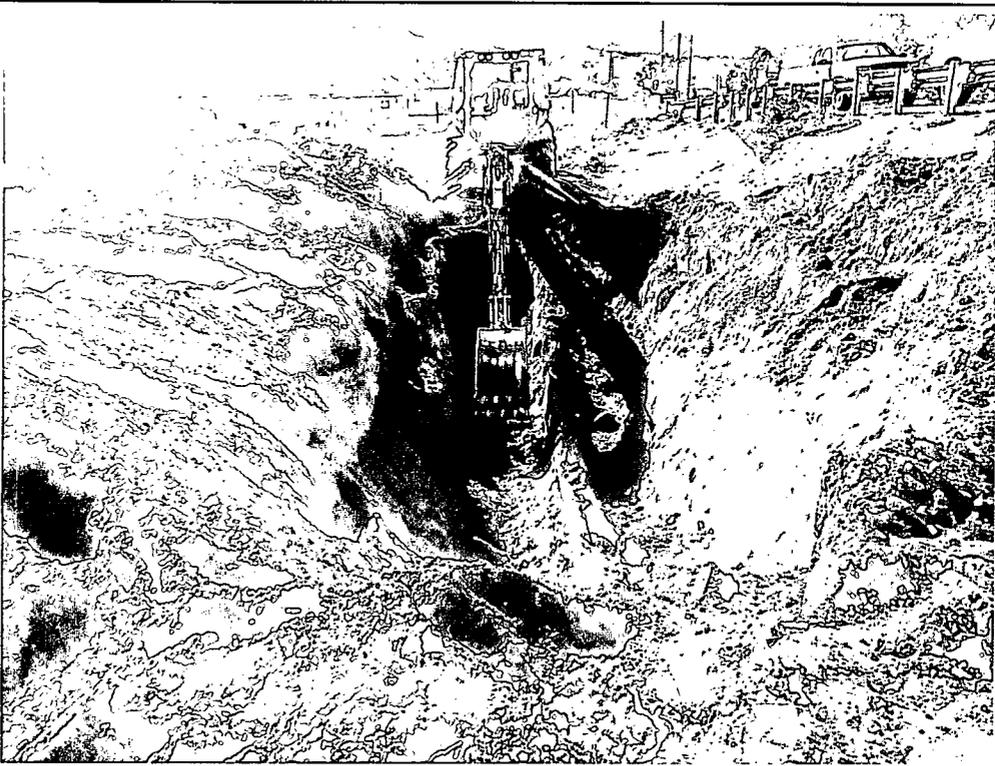
Photo #1	
Client: Enterprise Field Services, LLC	
Project: Lateral 5D-2	
Taken by: Heather Woods	
Date: September 26, 2013	
AES Project No. 130928	Description: View looking east during pipeline excavation.

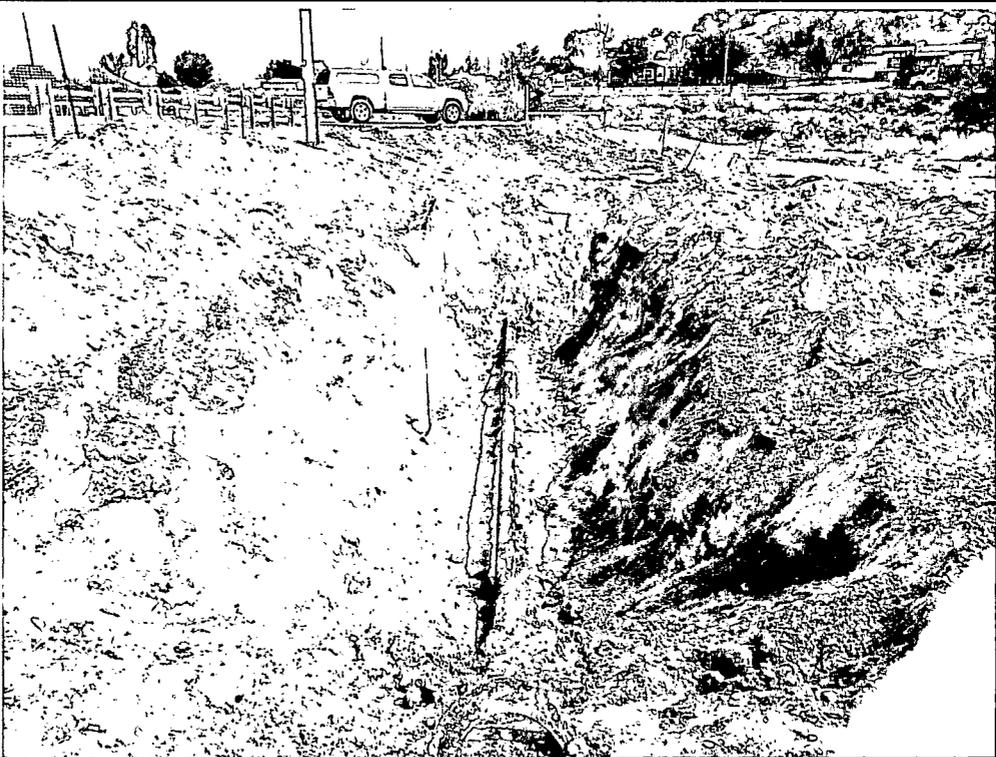
Photo #2	
Client: Enterprise Field Services, LLC	
Project: Lateral 5D-2	
Taken by: Heather Woods	
Date: September 27, 2013	
AES Project No. 130928	Description: View looking east of final excavation.

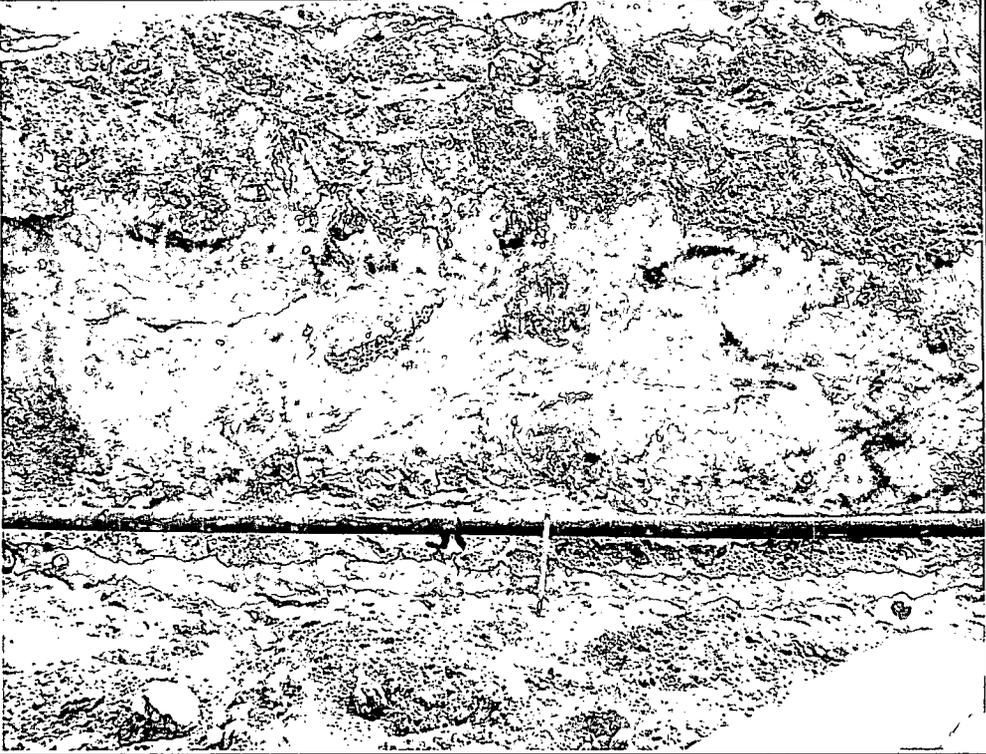
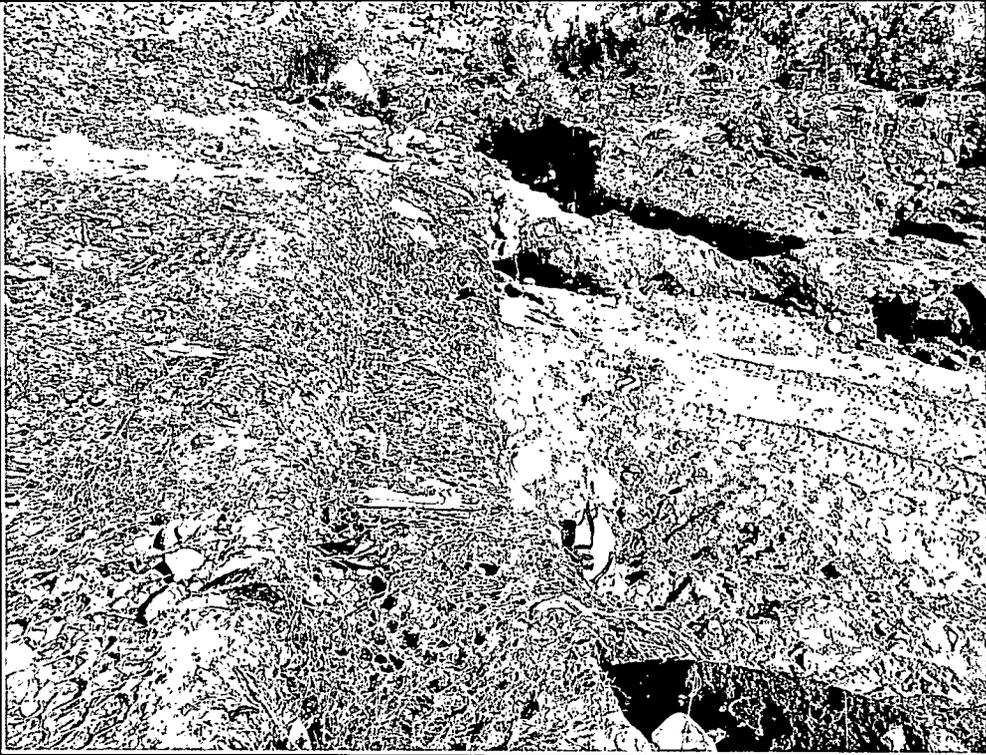
Photo #3	
Client: Enterprise Field Services, LLC	
Project: Lateral 5D-2	
Taken by: Heather Woods	
Date: September 27, 2013	
AES Project No. 130928	Description: View looking south of final excavation.

Photo #4	
Client: Enterprise Field Services, LLC	
Project: Lateral 5D-2	
Taken by: Heather Woods	
Date: October 8, 2013	
AES Project No. 130928	Description: View looking east of wash where soil borings SB-1 and SB-2 were completed.





Animas  
Environmental  
Services, LLC.  
624 East Comanche  
Farmington, NM 87401

LOG OF: SB-2

ENTERPRISE FIELD SERVICES LLC  
LATERAL 5D-2 PIPELINE RELEASE  
NW¼ NE¼, SECTION 15, T29N, R12W  
SAN JUAN COUNTY, NEW MEXICO  
N36.73178, W108.08428

Date Started : 10/8/13  
Date Completed : 10/8/13  
Hole Diameter : 3.25 in.  
Drilling Method : Geoprobe  
Sampling Method : Continuous

Latitude : N36.73177  
Longitude : W108.08373  
Survey By : Not Surveyed  
Logged By : H. Woods/ S. Lynn

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	PID (ppm)
0				Poorly Graded Sand, Brown, Dry to Moist, Fine to Medium Grained, Moderate Odor, and Slight Staining.	
4					7.8
8		SP			0.0
12					0.0
16		SC		Clayey Sand Grading to Sandy Clay, Fine to Medium Grained Sand, Brown, Moist, Moderate Odor, and Slight Staining.	0.0
20		SC		Clayey Sand, Gray Brown, Moist, Fine Grained, Slight to Moderate Odor and Slight to Moderate Staining.	0.0
24					0.0



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)

October 04, 2013

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-1776  
FAX (505) 324-2022

RE: Enterprise Lateral 5D-2

OrderNo.: 1309E35

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/28/2013 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.

Analytical Report  
 Lab Order 1309E35  
 Date Reported: 10/4/2013

CLIENT: Animas Environmental Services

Client Sample ID: SC-2

Project: Enterprise Lateral 5D-2

Collection Date: 9/26/2013 5:18:00 PM

Lab ID: 1309E35-001

Matrix: SOIL

Received Date: 9/28/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/2/2013 3:36:38 PM	9576
Surr: DNOP	87.5	63-147		%REC	1	10/2/2013 3:36:38 PM	9576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/2/2013 2:43:49 PM	9584
Surr: BFB	102	80-120		%REC	1	10/2/2013 2:43:49 PM	9584
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	10/2/2013 2:43:49 PM	9584
Toluene	ND	0.047		mg/Kg	1	10/2/2013 2:43:49 PM	9584
Ethylbenzene	ND	0.047		mg/Kg	1	10/2/2013 2:43:49 PM	9584
Xylenes, Total	ND	0.093		mg/Kg	1	10/2/2013 2:43:49 PM	9584
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	10/2/2013 2:43:49 PM	9584

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 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report  
 Lab Order 1309E35  
 Date Reported: 10/4/2013

CLIENT: Animas Environmental Services  
 Project: Enterprise Lateral 5D-2  
 Lab ID: 1309E35-002

Client Sample ID: SC-95  
 Collection Date: 9/27/2013 2:02:00 PM  
 Received Date: 9/28/2013 11:10:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/2/2013 5:11:50 PM	9576
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/2/2013 5:11:50 PM	9576
Surr: DNOP	89.7	63-147		%REC	1	10/2/2013 5:11:50 PM	9576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/2/2013 4:14:22 PM	9584
Surr: BFB	101	80-120		%REC	1	10/2/2013 4:14:22 PM	9584

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
	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 for VOA and TOC only.
	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#: 1309E35

04-Oct-13

Client: Animas Environmental Services

Project: Enterprise Lateral 5D-2

Sample ID	MB-9576	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9576	RunNo:	13723					
Prep Date:	10/1/2013	Analysis Date:	10/1/2013	SeqNo:	391935	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.8	63	147			

Sample ID	LCS-9576	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9576	RunNo:	13723					
Prep Date:	10/1/2013	Analysis Date:	10/1/2013	SeqNo:	391959	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.0	77.1	128			
Surr: DNOP	5.1		5.000		102	63	147			

### 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 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Iall Environmental Analysis Laboratory, Inc.

WO#: 1309E35

04-Oct-13

Client: Animas Environmental Services  
 Project: Enterprise Lateral 5D-2

Sample ID	MB-9584	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	9584	RunNo:	13779					
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo:	393846	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		100	80	120			

Sample ID	LCS-9584	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	9584	RunNo:	13779					
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo:	393847	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	90.1	74.5	126			
Surr: BFB	1100		1000		108	80	120			

Sample ID	1309E35-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-9	Batch ID:	9584	RunNo:	13779					
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo:	393853	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.32	0	97.6	76	156			
Surr: BFB	1000		932.8		110	80	120			

Sample ID	1309E35-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-9	Batch ID:	9584	RunNo:	13779					
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo:	393854	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.32	0	97.4	76	156	0.164	17.7	
Surr: BFB	1000		932.8		110	80	120	0	0	

**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
- I Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- > RSD is greater than RSDlimit
- P Sample pH greater than 2 for VOA and TOC only.
- ‡ 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#: 1309E35

04-Oct-13

Client: Animas Environmental Services

Project: Enterprise Lateral 5D-2

Sample ID	MB-9584		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: 9584	RunNo: 13779						
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo: 393969	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	1.1		1.000		114	80	120			

Sample ID	LCS-9584		SampType: LCS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS		Batch ID: 9584	RunNo: 13779						
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo: 393970	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.4	80	120			
Toluene	0.95	0.050	1.000	0	94.9	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.9	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID	1309E35-001AMS		SampType: MS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	SC-2		Batch ID: 9584	RunNo: 13779						
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo: 393973	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.047	0.9381	0	96.2	67.3	145			
Toluene	0.93	0.047	0.9381	0.01819	97.3	66.8	144			
Ethylbenzene	0.97	0.047	0.9381	0.01791	102	61.9	153			
Xylenes, Total	3.1	0.094	2.814	0.05373	107	65.8	149			
Surr: 4-Bromofluorobenzene	1.1		0.9381		116	80	120			

Sample ID	1309E35-001AMSD		SampType: MSD	TestCode: EPA Method 8021B: Volatiles						
Client ID:	SC-2		Batch ID: 9584	RunNo: 13779						
Prep Date:	10/1/2013	Analysis Date:	10/2/2013	SeqNo: 393974	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.047	0.9372	0	97.8	67.3	145	1.50	20	
Toluene	0.94	0.047	0.9372	0.01819	97.9	66.8	144	0.479	20	
Ethylbenzene	0.98	0.047	0.9372	0.01791	102	61.9	153	0.474	20	
Xylenes, Total	3.1	0.094	2.812	0.05373	107	65.8	149	0.210	20	
Surr: 4-Bromofluorobenzene	1.1		0.9372		113	80	120	0	0	

**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 for VOA and TOC only.
- RL Reporting Detection Limit

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1309E35

RcptNo: 1

Received by/date: AF 09/28/13

Logged By: Anne Thorne 9/28/2013 11:10:00 AM *Anne Thorne*

Completed By: Anne Thorne 10/1/2013 *Anne Thorne*

Reviewed By: IO 10/01/13

**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	4.1	Good	Yes			



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

Form C-141  
Revised August 8, 2011

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

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 H-46/Bruington 15G Well Tie	Facility Type: Well Tie/Gathering Line

Surface Owner: Private	Mineral Owner: BLM	API No.
------------------------	--------------------	---------

**LOCATION OF RELEASE**

Unit Letter F	Section 15	Township 30N	Range 11W	Feet from the 1801	North South Line	Feet from the 2071	East West Line	County San Juan
------------------	---------------	-----------------	--------------	-----------------------	------------------	-----------------------	----------------	--------------------

Latitude 36.8143 Longitude -107.9806

**NATURE OF RELEASE**

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 1/23/2014 @ 10:30 a.m.	Date and Hour of Discovery: 1/23/2014 @ 10:30 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

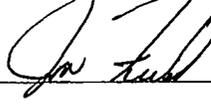
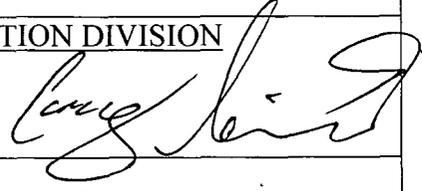
Describe Cause of Problem and Remedial Action Taken.\* A release was discovered on the Lateral H-46/Bruington 15G well tie on 1-23-14. The release caused by internal corrosion of the pipeline. The well was isolated and LOTO (lock out tag out) was applied. Repairs were completed during the week of January 27, 2014.

OIL CON. DIV DIST. 3

MAY 19 2014

Describe Area Affected and Cleanup Action Taken.\* Remediation activities completed during the week of January 27, 2014. The final was excavation was approximately 45 feet long by 17 feet wide by ranging from three (3) to five (5) feet deep where sandstone was encountered. Approximately 100 cubic yards of impacted soils were excavated and transported to a NMOCD approved landfarm. After approval from NMOCD, the excavation was sprayed with a solution of potassium permanganate to treat subsurface contaminants within the sandstone and then backfilled. A third party environmental contactor 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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 5/29/14	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5-13-2014	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

# NCS 1414933231



OIL CONS. DIV DIST. 3  
MAY 19 2014

## CORRECTIVE ACTION REPORT

Property:

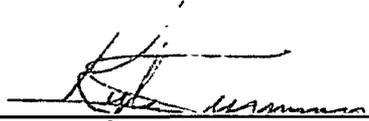
**H-46/Bruington # 15G Well Tie Release  
NW 1/4, S15 T30N R11W  
San Juan County, New Mexico**

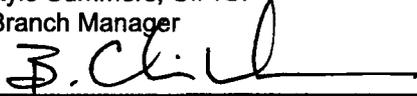
April 8, 2014  
Apex Project No. 7030414G004

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



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<b>Appendix A:</b>	Figure 1 – Topographic Map Figure 2 – Site Vicinity Map Figure 3 – Site Map with Soil Analytical Results
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<b>Appendix D:</b>	Tables
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---

## CORRECTIVE ACTION REPORT

**H-46/Bruington #15G Well Tie Release**  
NW 1/4, S15 T30N R11W  
San Juan County, New Mexico

**Apex Project No. 7030414G004**

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The H-46/Bruington #15G Well Tie Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 15 in Township 30 North and Range 11 West in rural San Juan County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on private property owned by Aztec Orchards Inv Co Trust c/o R. Chaffee, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

On January 28th, 2014, Enterprise shut in the H-46/Bruington #15G Well Tie pipeline and initiated excavation activities at the Site to allow the identification and repair of a subsurface leak. The pipeline leak was subsequently 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. Soil discoloration and minimal liquid evidence was 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 (RALs)* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

#### 1.3 Standard of Care

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.

#### 1.4 Additional Limitations

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.

### 1.5 Reliance

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 express 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.

### 2.0 SITE RANKING

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

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

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

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 20. This ranking is based on the following:

- The nearest residence is located over 1,500 feet northwest of the site and the nearest identified water well documented by the Office of the State Engineer website database is located over 2,000 feet northwest of the Site, with a recorded depth to water of 30 feet. However, due to the difference in elevation of approximately 100 feet, the depth to groundwater at the Site is anticipated to be greater >50 feet bgs.
- An un-named ephemeral wash is located approximately 300 feet east of the site and might be considered a "surface water body", but appears to only convey water during significant rain events.

### **3.0 RESPONSE ACTIONS**

#### **3.1 Soil Excavation Activities**

On January 28th, 2014, Enterprise shut in the H-46/Bruington #15G well tie and initiated excavation activities at the Site to allow the identification and repair of a subsurface leak. 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.

Subsequent to the pipeline repair activities, additional hydrocarbon affected soils were excavated at the Site. The total depth of the final excavation reached approximately 5 feet bgs near the source of the release and averaged 3 feet to 4 feet bgs in the remaining excavation footprint. The overall average surface expression of the excavation measured approximately 45 feet long by 17 feet wide.

Analytical results for soils remaining in place indicate hydrocarbon impact on the excavation floor directly below the point of release; however, competent sandstone rendered further excavation impracticable. All other areas of the final excavation exhibited COC levels below the OCD RALs.

Enterprise obtained permission from the OCD to apply potassium permanganate to the floor of the excavation prior to backfilling and closing the Site.

A total of approximately 100 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. The executed C-138 forms are 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.

The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and competent sandstone.

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 eleven (11) discrete confirmation samples (S-1 through S-5, S-8 and S-9, and S-11 through S-14) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions.

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 label, 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 Envirotech Analytical Laboratory in Farmington, New Mexico for 24-hr rush analysis.

#### 4.0 LABORATORY ANALYTICAL METHODS

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.

#### 5.0 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.

##### 5.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the eleven (11) confirmation samples collected from the excavated area to the OCD RALs for sites having a total ranking score of "20".

- The laboratory analyses of the confirmation samples of soil and sandstone remaining in place did not indicate benzene concentrations above the OCD RAL.
- The laboratory analyses of the confirmation samples of soil and sandstone remaining in place did not indicate total BTEX concentrations above the OCD RAL.
- The laboratory analyses of confirmation samples S-1 through S-5, S-8, S-9, S-11, S-13, and S-14 did not indicate TPH GRO/DRO concentrations above the OCD RAL of 100 mg/Kg for a Site ranking of "20".
- The laboratory analyses of confirmation sample S-12 indicated TPH GRO/DRO concentrations above the OCD RAL of 100 mg/Kg for a site ranking of "20". The TPH GRO/DRO concentrations were 340 mg/Kg and 1,900 mg/Kg, respectively, and were collected from sandstone bedrock.

Based on analytical and screening results, confirmation sample S-12 exhibited TPH GRO/DRO concentrations above the OCD RALs. The other confirmation samples for soil and bedrock which remains in-place at the Site did not exhibit COC concentrations above the OCD RALs for a Site

ranking of "20". Confirmation sample laboratory analytical results are provided in Table 1 in Appendix D.

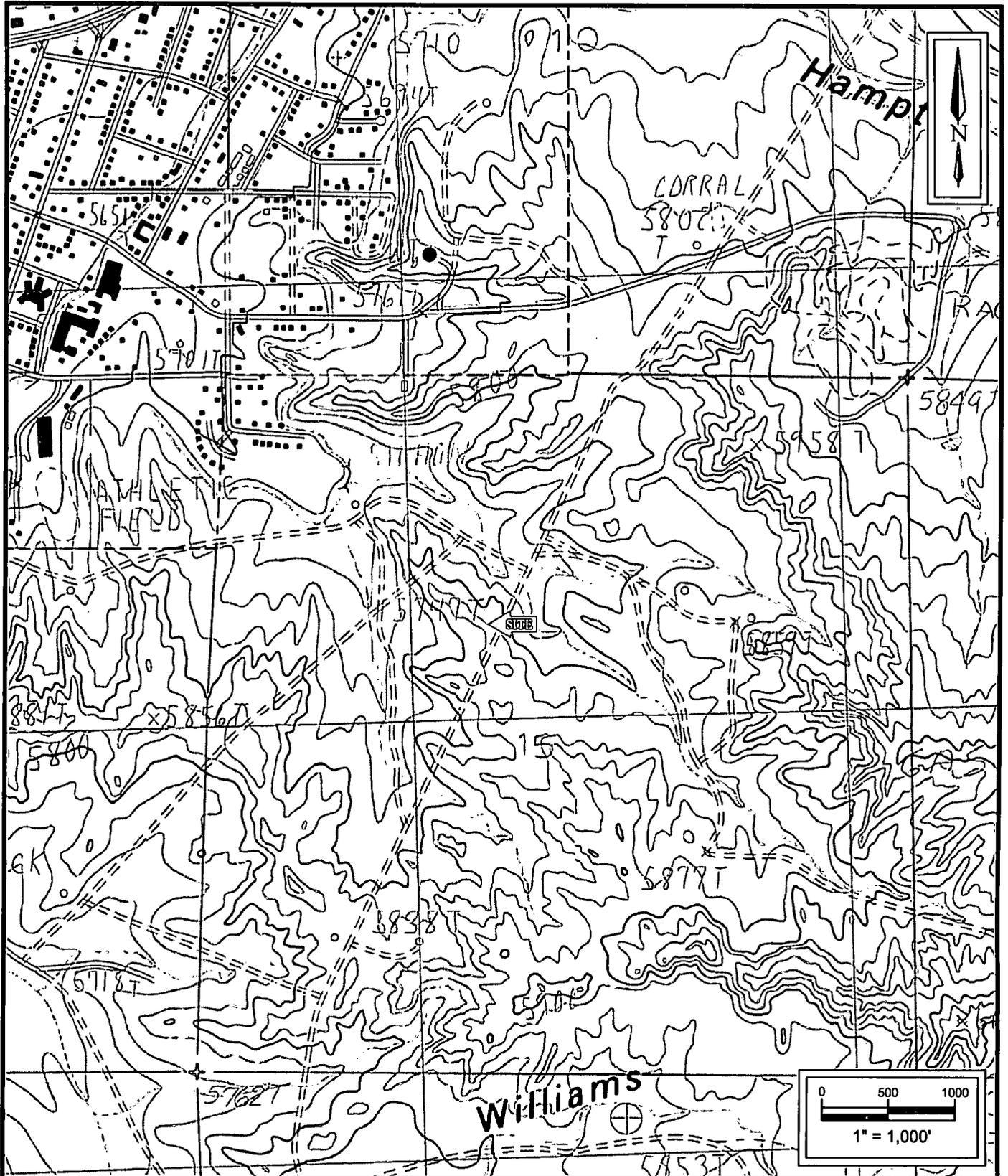
## 6.0 FINDINGS AND RECOMMENDATIONS

The H-46/Bruington #15G Well Tie Release Site is located within the Enterprise pipeline ROW in the NW ¼ of Section 15 in Township 30 North and Range 11 West in rural San Juan County, New Mexico. The Site is located on private land belonging to Aztec Orchards Inv Co Trust c/o R. Chaffe, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

On January 28th, 2014, Enterprise shut in the H-46/Bruington #15G Well Tie pipeline and initiated excavation activities at the Site to allow the identification and repair of a subsurface leak. The pipeline leak was subsequently repaired and returned to service. 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. Soil discoloration and minimal liquid evidence was visible at the surface.

- 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 reached approximately 5 feet bgs near the source of the release and averaged 3 feet to 4 feet bgs in the remaining excavation footprint. The overall average surface expression of the excavation measured approximately 45 feet long by 17 feet wide.
- Prior to applying potassium permanganate and backfilling the excavation, discrete confirmation samples were collected from the floor and sidewalls of the excavation. Based on analytical results, confirmation sample S-12 exhibited TPH GRO/DRO concentrations above the OCD RAL of 100 mg/Kg. The remaining confirmation samples for soil and sandstone which remains in-place at the Site did not exhibit COC concentrations above the OCD RALs for a Site ranking of "20".
- A total of approximately 100 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. landfarm on Crouch Mesa, near Aztec, NM for disposal/remediation. Subsequent to the OCD-approved application of potassium permanganate to the floor of the excavation, the excavation was backfilled with clean imported fill and contoured to the approximate surrounding grade.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and competent sandstone.

**Based on the laboratory analytical results and the OCD-approved treatment of the excavation with potassium permanganate, no additional investigation or corrective action appears warranted at this time.**



**H-46/Brulington #15G Well Tie Release**  
 S15 T30N R11W  
 Rural San Juan County, New Mexico  
 36.8143N, -107.9806W



**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 1**  
**Topographic Map**  
 Aztec, NM Quadrangle  
 1985

Project No. 7030414G004.001



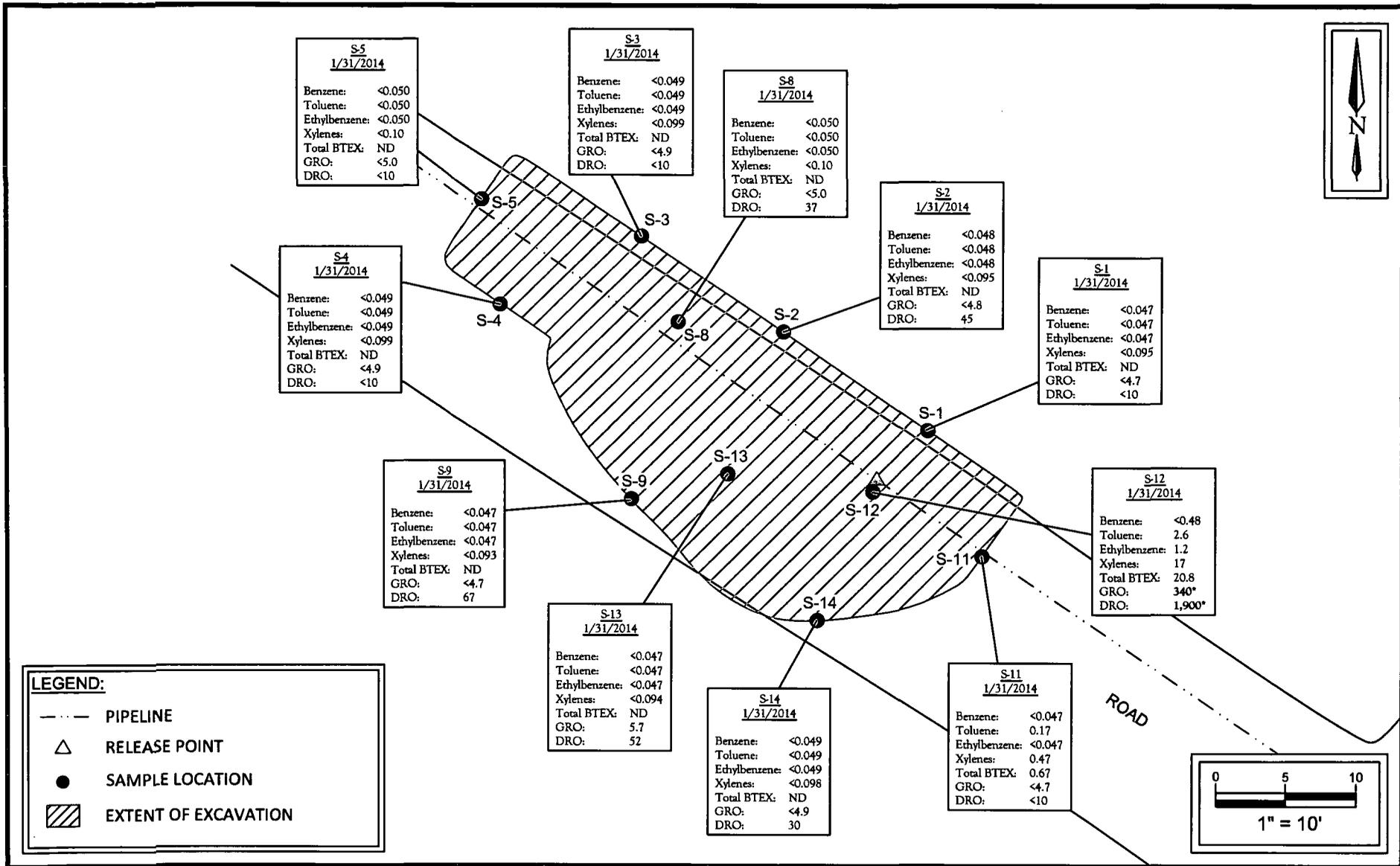
H-46/Bruington #15G Well Tie Release  
S15 T30N R11W  
Rural San Juan County, New Mexico  
36.8143N, -107.9806W



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

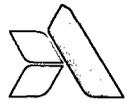
**FIGURE 2**  
**Site Vicinity Map**  
2013 Aerial Photograph

Project No. 7030414G004.001



**H-46/Bruington #15G Well Tie Release**  
 S15 T30N R11W  
 Rural San Juan County, New Mexico  
 36.8143N, -107.9806W

Project No. 7030414G004.001



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

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
100 Rio Brazos Road, Aztec, NM 87410  
District IV  
J.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 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:**  
H-46/Bruington 15G Well Tie

3. **Location of Material (Street Address, City, State or ULSTR):**  
Unit F Sec-15, T-30N, R-11W, San Juan County, NM

2-25-14 = 300 cy  
1-31-14 = 500 cy

4. **Source and Description of Waste:**  
Source: Pipeline Release  
Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.  
Estimated Volume 20 yds<sup>3</sup> / bbls      Known Volume (to be entered by the operator at the end of the haul) 200 yds<sup>3</sup> bbls

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

I, Ronald Seale, 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 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 handling 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 (the appropriate items)

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

#### GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Ronald Seale, representative for Enterprise Field Services, LLC authorize IEI to complete the required testing/sign the Generator Waste Testing Certification.

I, [Signature], representative for IEI 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 same 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.  
OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: JFJ Landfarm/Industrial Ecosystems, Inc. \* Permit #: NM-01-0010B  
Address of Facility: # 49 CR 3150 Aztec, NM- 87410

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

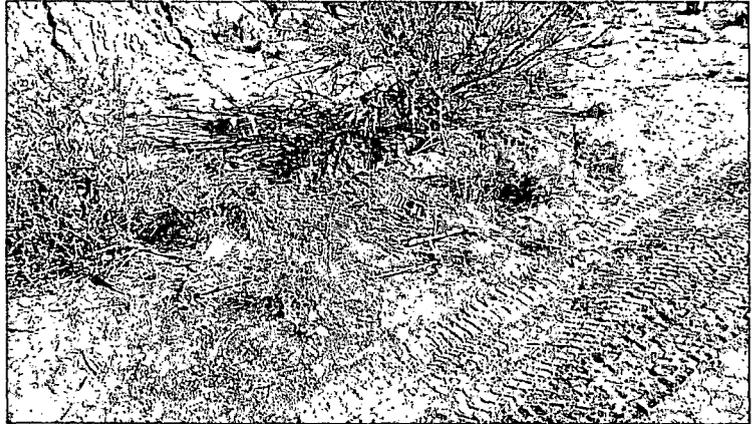
CL-280  
Ph-8

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

PRINT NAME: L. Machado      TITLE: Admin Specialist      DATE: 1-30-14  
SIGNATURE: [Signature]      TELEPHONE NO.: 505 7032-1782  
Surface Waste Management Facility Authorized Agent

**Photograph 1**

Evidence of pipeline release at ground surface.



**Photograph 2**

Initial excavation activities.



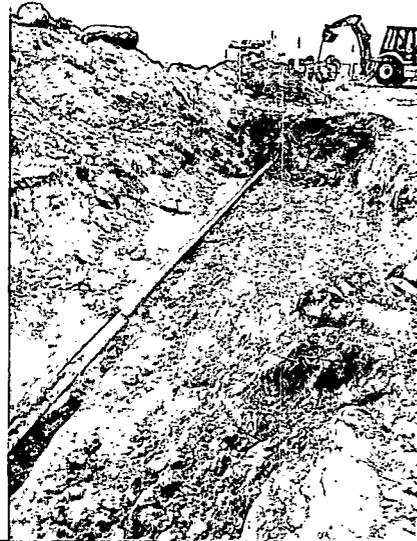
**Photograph 3**

Removal of sandstone along the pipeline using jackhammer subsequent to excavation and repair activities.



**Photograph 4**

View of pipe chase (facing east) after final excavation and repair activities.



**Photograph 5**

Application of potassium permanganate by Envirotech.





**TABLE 1**  
**H-46/Bruington #15C Well Tie Release**  
**SOIL ANALYTICAL SUMMARY**

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Samples for Soils which were Removed by Excavation									
S-6	Not Analyzed - Removed Based on PID Readings								
S-7	Not Analyzed - Removed Based on PID Readings								
S-10	Not Analyzed - Removed Based on PID Readings								
Final Confirmation Samples - Soils Remaining in Place									
S-1	1/31/2014	2-4	<0.047	<0.047	<0.047	<0.095	ND	<4.7	<10
S-2	1/31/2014	2-4	<0.048	<0.048	<0.048	<0.095	ND	<4.8	45
S-3	1/31/2014	2-4	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<10
S-4	1/31/2014	2-4	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<10
S-5	1/31/2014	3-4	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
S-8	1/31/2014	4	<0.050	<0.050	<0.050	<0.10	ND	<5.0	37
S-9	1/31/2014	2-4	<0.047	<0.047	<0.047	<0.093	ND	<4.7	67
S-11	1/31/2014	2-5	<0.047	0.17	<0.047	0.47	0.67	<4.7	<10
S-12	1/31/2014	5	<0.48	2.6	1.2	17	20.8	340	1,900
S-13	1/31/2014	4	<0.047	<0.047	<0.047	<0.094	ND	5.7	52
S-14	1/31/2014	2-4	<0.049	<0.049	<0.049	<0.098	ND	<4.9	30

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

NA = Not Analyzed

NE = Not Established



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)

February 11, 2014

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

RE: H-46/Bruington #15G

OrderNo.: 1402109

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 11 sample(s) on 2/4/2014 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](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: Southwest Geoscience  
 Project: H-46/Bruington #15G  
 Lab ID: 1402109-001

Matrix: SOIL

Client Sample ID: S-1  
 Collection Date: 1/31/2014 1:00:00 PM  
 Received Date: 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/6/2014 2:20:26 PM	11569
Surr: DNOP	92.2	66-131		%REC	1	2/6/2014 2:20:26 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/6/2014 1:59:54 PM	11577
Surr: BFB	83.6	74.5-129		%REC	1	2/6/2014 1:59:54 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	2/6/2014 1:59:54 PM	11577
Toluene	ND	0.047		mg/Kg	1	2/6/2014 1:59:54 PM	11577
Ethylbenzene	ND	0.047		mg/Kg	1	2/6/2014 1:59:54 PM	11577
Xylenes, Total	ND	0.095		mg/Kg	1	2/6/2014 1:59:54 PM	11577
Surr: 4-Bromofluorobenzene	90.9	80-120		%REC	1	2/6/2014 1:59:54 PM	11577

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	
	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	Page 1 of 15
	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:** H-46/Bruington #15G

**Collection Date:** 1/31/2014 1:05:00 PM

**Lab ID:** 1402109-002

**Matrix:** SOIL

**Received Date:** 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	45	10		mg/Kg	1	2/6/2014 2:42:21 PM	11569
Surr: DNOP	96.5	66-131		%REC	1	2/6/2014 2:42:21 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/6/2014 3:25:42 PM	11577
Surr: BFB	89.5	74.5-129		%REC	1	2/6/2014 3:25:42 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.048		mg/Kg	1	2/6/2014 3:25:42 PM	11577
Toluene	ND	0.048		mg/Kg	1	2/6/2014 3:25:42 PM	11577
Ethylbenzene	ND	0.048		mg/Kg	1	2/6/2014 3:25:42 PM	11577
Xylenes, Total	ND	0.095		mg/Kg	1	2/6/2014 3:25:42 PM	11577
Surr: 4-Bromofluorobenzene	91.8	80-120		%REC	1	2/6/2014 3:25:42 PM	11577

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
	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: H-46/Bruington #15G

Collection Date: 1/31/2014 1:10:00 PM

Lab ID: 1402109-003

Matrix: SOIL

Received Date: 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/6/2014 3:04:17 PM	11569
Surr: DNOP	87.5	66-131		%REC	1	2/6/2014 3:04:17 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/6/2014 4:51:16 PM	11577
Surr: BFB	83.2	74.5-129		%REC	1	2/6/2014 4:51:16 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	2/6/2014 4:51:16 PM	11577
Toluene	ND	0.049		mg/Kg	1	2/6/2014 4:51:16 PM	11577
Ethylbenzene	ND	0.049		mg/Kg	1	2/6/2014 4:51:16 PM	11577
Xylenes, Total	ND	0.099		mg/Kg	1	2/6/2014 4:51:16 PM	11577
Surr: 4-Bromofluorobenzene	91.5	80-120		%REC	1	2/6/2014 4:51:16 PM	11577

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  
 Project: H-46/Bruington #15G  
 Lab ID: 1402109-004

Matrix: SOIL

Client Sample ID: S-4  
 Collection Date: 1/31/2014 1:15:00 PM  
 Received Date: 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/6/2014 3:26:17 PM	11569
Surr: DNOP	94.5	66-131		%REC	1	2/6/2014 3:26:17 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/6/2014 5:19:54 PM	11577
Surr: BFB	82.7	74.5-129		%REC	1	2/6/2014 5:19:54 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	2/6/2014 5:19:54 PM	11577
Toluene	ND	0.049		mg/Kg	1	2/6/2014 5:19:54 PM	11577
Ethylbenzene	ND	0.049		mg/Kg	1	2/6/2014 5:19:54 PM	11577
Xylenes, Total	ND	0.099		mg/Kg	1	2/6/2014 5:19:54 PM	11577
Surr: 4-Bromofluorobenzene	90.0	80-120		%REC	1	2/6/2014 5:19:54 PM	11577

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
	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  
**Project:** H-46/Bruington #15G  
**Lab ID:** 1402109-005

**Matrix:** SOIL

**Client Sample ID:** S-5  
**Collection Date:** 1/31/2014 1:20:00 PM  
**Received Date:** 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/6/2014 3:48:12 PM	11569
Surr: DNOP	94.5	66-131		%REC	1	2/6/2014 3:48:12 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/6/2014 5:48:31 PM	11577
Surr: BFB	84.2	74.5-129		%REC	1	2/6/2014 5:48:31 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.050		mg/Kg	1	2/6/2014 5:48:31 PM	11577
Toluene	ND	0.050		mg/Kg	1	2/6/2014 5:48:31 PM	11577
Ethylbenzene	ND	0.050		mg/Kg	1	2/6/2014 5:48:31 PM	11577
Xylenes, Total	ND	0.10		mg/Kg	1	2/6/2014 5:48:31 PM	11577
Surr: 4-Bromofluorobenzene	90.8	80-120		%REC	1	2/6/2014 5:48:31 PM	11577

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
	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  
**Project:** H-46/Bruington #15G  
**Lab ID:** 1402109-007

**Matrix:** SOIL

**Client Sample ID:** S-9  
**Collection Date:** 1/31/2014 2:10:00 PM  
**Received Date:** 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	67	10		mg/Kg	1	2/6/2014 4:32:08 PM	11569
Surr: DNOP	116	66-131		%REC	1	2/6/2014 4:32:08 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2014 12:31:12 PM	11577
Surr: BFB	95.9	74.5-129		%REC	1	2/7/2014 12:31:12 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	2/7/2014 12:31:12 PM	11577
Toluene	ND	0.047		mg/Kg	1	2/7/2014 12:31:12 PM	11577
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2014 12:31:12 PM	11577
Xylenes, Total	ND	0.093		mg/Kg	1	2/7/2014 12:31:12 PM	11577
Surr: 4-Bromofluorobenzene	92.9	80-120		%REC	1	2/7/2014 12:31:12 PM	11577

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
	.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-11

Project: H-46/Bruington #15G

Collection Date: 1/31/2014 2:30:00 PM

Lab ID: 1402109-008

Matrix: SOIL

Received Date: 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/6/2014 4:54:13 PM	11569
Surr: DNOP	102	66-131		%REC	1	2/6/2014 4:54:13 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/6/2014 6:17:07 PM	11577
Surr: BFB	84.2	74.5-129		%REC	1	2/6/2014 6:17:07 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	2/6/2014 6:17:07 PM	11577
Toluene	0.17	0.047		mg/Kg	1	2/6/2014 6:17:07 PM	11577
Ethylbenzene	ND	0.047		mg/Kg	1	2/6/2014 6:17:07 PM	11577
Xylenes, Total	0.47	0.094		mg/Kg	1	2/6/2014 6:17:07 PM	11577
Surr: 4-Bromofluorobenzene	90.8	80-120		%REC	1	2/6/2014 6:17:07 PM	11577

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
	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-13

**Project:** H-46/Bruington #15G

**Collection Date:** 1/31/2014 3:30:00 PM

**Lab ID:** 1402109-010

**Matrix:** SOIL

**Received Date:** 2/4/2014 10:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	52	10		mg/Kg	1	2/6/2014 6:43:44 PM	11569
Surr: DNOP	93.9	66-131		%REC	1	2/6/2014 6:43:44 PM	11569
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	5.7	4.7		mg/Kg	1	2/7/2014 1:28:28 PM	11577
Surr: BFB	106	74.5-129		%REC	1	2/7/2014 1:28:28 PM	11577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	2/7/2014 1:28:28 PM	11577
Toluene	ND	0.047		mg/Kg	1	2/7/2014 1:28:28 PM	11577
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2014 1:28:28 PM	11577
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2014 1:28:28 PM	11577
Surr: 4-Bromofluorobenzene	92.8	80-120		%REC	1	2/7/2014 1:28:28 PM	11577

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
	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#: 1402109

11-Feb-14

Client: Southwest Geoscience

Project: H-46/Bruington #15G

Sample ID	<b>MB-11569</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11569</b>	RunNo:	<b>16554</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>476906</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	6.8		10.00		68.3	66	131			

Sample ID	<b>MB-11588</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11588</b>	RunNo:	<b>16554</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>476907</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.5		10.00		75.2	66	131			

Sample ID	<b>LCS-11569</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11569</b>	RunNo:	<b>16554</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>476908</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	60.8	145			
Surr: DNOP	4.3		5.000		86.7	66	131			

Sample ID	<b>LCS-11588</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11588</b>	RunNo:	<b>16554</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>476909</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		74.9	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#: 1402109

11-Feb-14

Client: Southwest Geoscience

Project: H-46/Bruington #15G

Sample ID	<b>MB-11577</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477086</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		83.5	74.5	129			

Sample ID	<b>LCS-11577</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477087</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	74.5	126			
Surr: BFB	890		1000		88.7	74.5	129			

Sample ID	<b>1402109-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>S-1</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477089</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	4.8	23.79	0	141	69.5	145			
Surr: BFB	890		951.5		93.4	74.5	129			

Sample ID	<b>1402109-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>S-1</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477090</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.7	23.72	0	127	69.5	145	11.3	20	
Surr: BFB	890		948.8		93.3	74.5	129	0	0	

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R16598</b>	RunNo:	<b>16598</b>					
Prep Date:		Analysis Date:	<b>2/7/2014</b>	SeqNo:	<b>478175</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	830		1000		83.2	74.5	129			

Sample ID	<b>2.5UG GRO LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R16598</b>	RunNo:	<b>16598</b>					
Prep Date:		Analysis Date:	<b>2/7/2014</b>	SeqNo:	<b>478176</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		90.2	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#: 1402109

11-Feb-14

**Client:** Southwest Geoscience

**Project:** H-46/Bruington #15G

Sample ID	<b>MB-11577</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477123</b>	Units:	<b>mg/Kg</b>			
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	0.90		1.000		90.3	80	120			

Sample ID	<b>LCS-11577</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477124</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	111	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	110	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		96.6	80	120			

Sample ID	<b>MB-11577</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477126</b>	Units:	<b>mg/Kg</b>			
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	0.90		1.000		90.3	80	120			

Sample ID	<b>LCS-11577</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11577</b>	RunNo:	<b>16565</b>					
Prep Date:	<b>2/5/2014</b>	Analysis Date:	<b>2/6/2014</b>	SeqNo:	<b>477127</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	111	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	110	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		96.6	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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402109

11-Feb-14

Client: Southwest Geoscience

Project: H-46/Bruington #15G

Sample ID	1402109-002AMS		SampType: MS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	S-2		Batch ID: 11577	RunNo: 16565						
Prep Date:	2/5/2014		Analysis Date: 2/6/2014	SeqNo: 477130	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.048	0.9551	0	135	67.4	135			
Toluene	1.3	0.048	0.9551	0.01099	135	72.6	135			
Ethylbenzene	1.3	0.048	0.9551	0.007147	137	69.4	143			
Xylenes, Total	4.0	0.096	2.865	0.05885	138	70.8	144			
Surr: 4-Bromofluorobenzene	0.92		0.9551		96.6	80	120			

Sample ID	1402109-002AMSD		SampType: MSD	TestCode: EPA Method 8021B: Volatiles						
Client ID:	S-2		Batch ID: 11577	RunNo: 16565						
Prep Date:	2/5/2014		Analysis Date: 2/6/2014	SeqNo: 477131	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.048	0.9569	0	132	67.4	135	2.09	20	
Toluene	1.3	0.048	0.9569	0.01099	130	72.6	135	3.10	20	
Ethylbenzene	1.3	0.048	0.9569	0.007147	133	69.4	143	3.32	20	
Xylenes, Total	3.8	0.096	2.871	0.05885	132	70.8	144	3.99	20	
Surr: 4-Bromofluorobenzene	0.93		0.9569		96.8	80	120	0	0	

Sample ID	5ML RB		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: R16598	RunNo: 16598						
Prep Date:			Analysis Date: 2/7/2014	SeqNo: 478191	Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		89.3	80	120			

Sample ID	100NG BTEX LCS		SampType: LCS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS		Batch ID: R16598	RunNo: 16598						
Prep Date:			Analysis Date: 2/7/2014	SeqNo: 478192	Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	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

**Sample Log-In Check List**

Client Name: Southwest Geoscience      Work Order Number: 1402109      RcptNo: 1

Received by/date: *[Signature]* 02/04/14  
 Logged By: Ashley Gallegos 2/4/2014 10:36:00 AM *[Signature]*  
 Completed By: Ashley Gallegos 2/4/2014 4:44:39 PM *[Signature]*  
 Reviewed By: *[Signature]* 2/5/14

**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?      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

**Southwest**  
**GEOSCIENCE**  
 Environmental & Hydrogeologic Consultants

Laboratory: HALL

Address: ABQ

Office Location AZTEC, NM

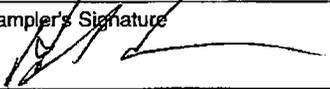
Contact: FREEMAN

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

Project Manager KYLE SUMMERS

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

Sampler's Name  
KYLE SUMMERS

Sampler's Signature  


ANALYSIS REQUESTED

*BTGX 8021  
 TPH 8015 DRUGS*

Lab use only  
 Due Date: \_\_\_\_\_

Temp. of coolers when received (C°): 1.0

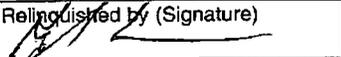
1	2	3	4	5
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Page 1 of 2

Proj. No. 04146004 Project Name H-46/BRUNINGTON #1567 No/Type of Containers \_\_\_\_\_

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	1-31-14	1300		X	S-1						X	X	1402109-001
S		1305		X	S-2						X	X	-002
S		1310		X	S-3						X	X	-003
S		1315		X	S-4						X	X	-004
S		1320		X	S-5						X	X	-005
S		1400		X	S-8						X	X	-006
S		1410		X	S-9						X	X	-007
S		1430		X	S-11						X	X	-008
S		1440		X	S-12						X	X	-009
S		1530		X	S-13						X	X	-010

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

Relinquished by (Signature) 	Date: <u>2/3/14</u> Time: <u>1409</u>	Received by: (Signature) <u>Monique Walker</u>	Date: <u>2/3/14</u> Time: <u>1409</u>
Relinquished by (Signature) <u>Monique Walker</u>	Date: <u>2/3/14</u> Time: <u>1749</u>	Received by: (Signature) <u>John P. ...</u>	Date: <u>02/04/14</u> Time: <u>1030</u>
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

CHAIN OF CUSTODY RECORD

<h1 style="margin: 0;">Southwest</h1> <h2 style="margin: 0;">GEOSCIENCE</h2> <p style="margin: 0;">Environmental &amp; Hydrogeologic Consultants</p>		Laboratory: <u>HALL</u> Address: <u>ABQ</u>		ANALYSIS REQUESTED <div style="font-size: 2em; transform: rotate(-45deg); opacity: 0.5;">BTEX 8021 TPH 8015 DROGRO</div>										Lab use only Due Date:					
		Office Location: <u>ARTGL, Nm</u> Contact: <u>FREEMAN</u> Phone:												Temp. of coolers when received (C°): <u>1°C</u> <table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> <tr> <td colspan="5">Page <u>2</u> of <u>2</u></td> </tr> </table>					1
1	2	3	4	5															
Page <u>2</u> of <u>2</u>																			
Project Manager: <u>Kyle Summers</u> Sampler's Name: <u>Kyle Summers</u>		PO/SO #:		Lab Sample ID (Lab Use Only)															
Project No.: <u>04146004</u> Project Name: <u>H-46 113 RINGTON #1517</u>		No/Type of Containers:																	
Matrix	Date	Time	Coed	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	P/O								
S	1-31-14	1540		X	S-14							1	X	X	1402109-011				
<div style="font-size: 2em; opacity: 0.5; transform: rotate(-45deg);">NFS AB</div>																			
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): <u>[Signature]</u>			Date: <u>2/3/14</u>		Time: <u>1409</u>		Received by (Signature): <u>[Signature]</u>			Date: <u>2/3/14</u>		Time: <u>1409</u>		NOTES:					
Relinquished by (Signature): <u>[Signature]</u>			Date: <u>2/3/14</u>		Time: <u>1740</u>		Received by (Signature): <u>[Signature]</u>			Date: <u>02/04/14</u>		Time: <u>1036</u>							
Relinquished by (Signature):			Date:		Time:		Received by (Signature):			Date:		Time:							
Relinquished by (Signature):			Date:		Time:		Received by (Signature):			Date:		Time:							

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

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

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company Enterprise Field Services LLC	Contact Thomas Long
Address 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name; Lateral 2B-17 Pipeline	Facility Type: Gas gathering system pipeline
Surface Owner: BLM	Mineral Owner
API No.	

**LOCATION OF RELEASE**

Unit Letter B	Section 3	Township 27N	Range 10W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	--------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36.60892 Longitude 107.882305

OIL CONS. DIV DIST. 3  
MAY 05 2014

**NATURE OF RELEASE**

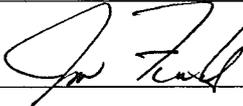
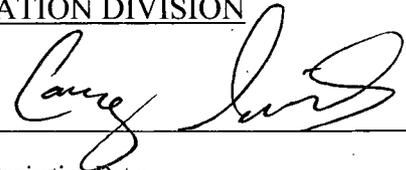
Type of Release: Natural gas and natural gas liquids	Volume of Release: <b>Unknown amount of natural gas; Estimated 5 to 10 bbls of liquids</b>	Volume Recovered <b>Unknown</b>
Source of Release Natural Gas gathering pipeline	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>10-8-2013 @ 10:254 a.m.</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\* The release occurred within the subsurface of a dry ephemeral which is a tributary to Armenta Wash. An area of approximately 40 feet long by 20 feet wide was observed.

Describe Cause of Problem and Remedial Action Taken.\* During a routine pipeline patrol, a leak was discovered. The pipeline line was isolated and removed from service. Repairs to the pipeline were completed by installing three (3) feet of new pipe to replace the section of pipe damaged by internal corrosion on October 10, 2013.

Describe Area Affected and Cleanup Action Taken.\* Remediation and repair activities began on October 10, 2013. Approximately 564 cubic yards of impacted soil was excavated and transported to a NMOCD approved land farm facility. The removal of the impacted soil was temporarily postponed until correspondence with regulatory agencies was complete and rescheduling was accomplished. The excavation continued on March 24, 2014 where an additional 270 cubic yards of impacted soil was removed and transported to a NMOCD approved land farm facility. The final excavation measured 40 feet long by 20 feet wide ranging from approximately 15 to 21 feet below ground surface. 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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>5/14/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	
Date: <u>4-30-2014</u> Phone: (713)381-6684	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

#NCS 141 34 37400



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CORRECTIVE ACTION REPORT

OIL CONS. DIV DIST. 3

MAY 05 2014

Property:

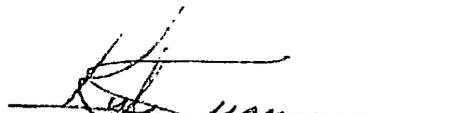
Lateral 2B-17 Pipeline Release  
NE 1/4, S3 T27N R10W  
San Juan County, New Mexico

April 11, 2014  
SWG Project No. 0413G015

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

**Southwest**  
GEOSCIENCE

606 S. Rio Grande Avenue  
Unit A, Downstairs West  
Aztec, NM 87410  
Ph: (505) 334-5200  
Fax: (505) 334-5204

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1.2 Project Objective .....	1
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              Figure 3 – Site Map

Appendix B: Executed C-138 Solid Waste Acceptance Forms

Appendix C: Photographic Documentation

Appendix D: Tables

Appendix E: Laboratory Analytical Reports &  
              Chain of Custody Documentation

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## CORRECTIVE ACTION REPORT

Lateral 2B-17 Pipeline Release Site  
NE 1/4, S3 T27N R10W  
San Juan County, New Mexico

SWG Project No. 0413G015

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The Lateral 2B-17 Pipeline Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 3 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 on public land managed by the U.S. Bureau of Land Management (BLM), and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) 6-inch and one (1) 10-inch Enterprise natural gas gathering pipelines which traverse the area from east to west.

On October 8<sup>th</sup>, 2013, Enterprise shut in the lateral 2B-17 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak. The leak was subsequently identified and repaired. An estimated 10 bbls of condensate/water mixture was potentially released from the pipeline as a result of corrosion. No surface expression of the release was evident at the Site.

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.

#### 1.3 Standard of Care

Southwest Geoscience's (SWG'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. SWG makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, SWG 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.

#### 1.4 Additional Limitations

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 SWG 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. SWG's findings and recommendations are based solely upon data available to SWG at the time of these services.

### 1.5 Reliance

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 express written authorization of Enterprise and SWG. 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 SWG's Agreement. The limitation of liability defined in the agreement is the aggregate limit of SWG's liability to the client.

## 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 table below:

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

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

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

- The nearest identified water well documented by the Office of the State Engineer website database is located over 3,000 feet southeast of the Site. This water well indicates a depth to water of 94 feet. Although groundwater was not encountered at the vertical extent of the excavation (21 feet bgs), an assigned ranking of "20" was given to the Site based on an assumed

groundwater depth of <50 feet bgs due to the close proximity of an ephemeral wash.

- No water wells or water sources were identified in the immediate area.
- For the purpose of determining the preliminary ranking, the dry ephemeral wash adjacent to the site might qualify as "surface water", resulting in a ranking of "20". However, considering that no groundwater was observed in the excavation, it is unlikely that significant subsurface flow is present. This un-named wash is a tributary to the larger Armenta Wash which it joins approximately 2.6 miles north of the Site.

### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On October 8<sup>th</sup>, 2013, Enterprise shut in the lateral 2B-17 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak (based on a vapor monitoring survey of the pipeline ROW) in the pipeline. During the remediation and repair activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers, a SWG environmental professional, provided environmental support.

The leak was identified on October 10<sup>th</sup>, 2013, and repairs were initiated. Stained soils were identified along the pipeline ROW to the east, and this material led to a historic release area east and north of the pipeline release area (possibly a former drip tank location). This material was also excavated and removed from the Site.

During the first stage of corrective action, approximately 564 cubic yards of hydrocarbon affected soils were excavated at the Site. Based on initial sampling results, the excavation was extended to approximately 15 feet bgs in the immediate area of the release, after which additional confirmation samples were collected. This depth represented the practicable mechanical limits of the on-site excavation equipment. Due to the physical nature (low angle of repose) of the sandy soils, additional excavation with the available equipment would put both the repaired pipeline and the adjacent pipeline in jeopardy of physical stress damage due to load shifting. The Site was fenced and equipment de-mobilized pending laboratory results from confirmation sampling.

Analytical results from the initial corrective actions indicated remaining hydrocarbon impact on the excavation floor directly below the point of release. All other areas of the excavation exhibited COC levels below the OCD Remediation Action Levels (RALs). Enterprise met with the OCD and BLM to discuss further actions at the Site.

On March 24<sup>th</sup>, 2014 Enterprise resumed excavation at the Site. The excavation was further benched for added stability, and an additional 270 cubic yards of material were removed from the floor and lower sidewalls of the excavation in the immediate vicinity of the release. The total depth of the final excavation reached approximately 21 feet bgs near the source of the release, and approximately 6 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 40 feet long by 20 feet wide.

A total of approximately 834 cubic yards of hydrocarbon affected soils mixed with a limited amount of overburden slough were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The executed C-138 forms are provided

in Appendix B. The excavation was backfilled on March 27<sup>th</sup> and 28<sup>th</sup> 2014 with clean imported fill and unaffected overburden and benching-derived soils.

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.

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

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**

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

SWG's soil sampling program included the collection of twenty-two (22) discrete and composite confirmation samples (S-1 through S-4, and Conf-6 through Conf-23) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions. At the request of the OCD, composite samples were collected where possible during the second stage of the excavation.

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 label, 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 Envirotech Analytical Laboratory in Farmington, New Mexico for 24-hr rush analysis.

### **4.0 LABORATORY ANALYTICAL METHODS**

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.

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## 5.0 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.

### 5.1 Confirmation Soil Samples

SWG compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the twenty-two (22) confirmation samples collected from the excavated area to the OCD *Remediation Action Levels* for sites having a total ranking score of >20.

- The laboratory analysis of the confirmation soil samples of soils remaining in place did not indicate benzene concentrations above the OCD *Remediation Action Level*.
- The laboratory analysis of the confirmation soil samples of soils remaining in place did not indicate total BTEX concentrations above the OCD *Remediation Action Levels*.
- The laboratory analysis of the confirmation soil samples of soils remaining in place did not indicate TPH GRO/DRO concentrations above the OCD *Remediation Action Levels*.
- The laboratory analyses of samples S-2, S-3, and Conf-14 indicated total BTEX and/or TPH GRO/DRO levels above the OCD *Remediation Action Levels*, however, these affected soils were subsequently removed for disposal/treatment during the final excavation activities.

Based on analytical and screening results, the soils which remain in-place at the Site exhibit no COC concentrations above the OCD *Remediation Action Levels*. Confirmation sample results are provided in Table 1 in Appendix D.

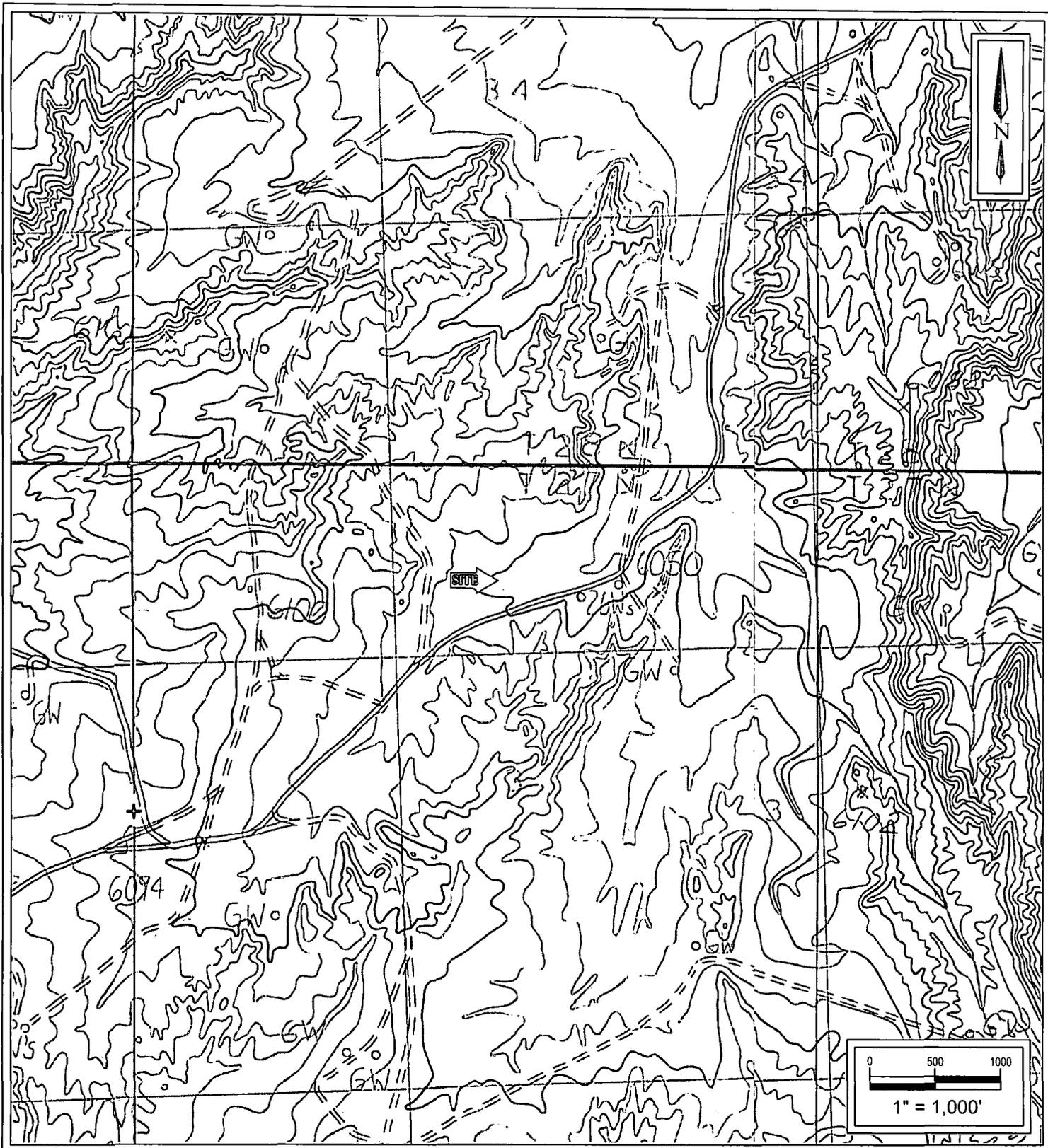
## 6.0 FINDINGS AND RECOMMENDATIONS

The Lateral 2B-17 Pipeline Release Site is located within the Enterprise pipeline ROW in the NE ¼ of Section 3 in Township 27 North and Range 10 West in rural San Juan County, New Mexico. The Site is located on public land managed by the U.S. BLM, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one 6-inch and one 10-inch Enterprise pipelines which traverse the area from east to west.

On October 8<sup>th</sup>, 2013, Enterprise shut in the lateral 2B-17 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak (based on a vapor monitoring survey of the pipeline ROW) in the pipeline. The leak was subsequently identified and repaired. An estimated 10 bbls of condensate/water mixture was potentially released from the pipeline as a result of corrosion. No surface expression of the release was evident.

- 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 Remediation Action Levels* using the New Mexico EMNRD *OCD's Guidelines for Remediation of Leaks, Spills and Releases* as guidance.
- The total depth of the final excavation reached approximately 21 feet bgs near the source of the release, and approximately 6 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 40 feet long by 20 feet wide.
- A total of approximately 834 cubic yards of hydrocarbon affected soils mixed with a limited amount of overburden slough were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The excavation was backfilled on March 27<sup>th</sup> and 28<sup>th</sup> 2014 with clean imported fill and unaffected overburden and benching-derived soils.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and sands.
- Prior to backfilling the excavation, discrete and composite confirmation samples were collected from the floor and sidewalls of the excavation. Based on analytical and screening results, the soils remaining on-site do not exhibit COC concentrations above the *OCD Remediation Action Levels*.

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

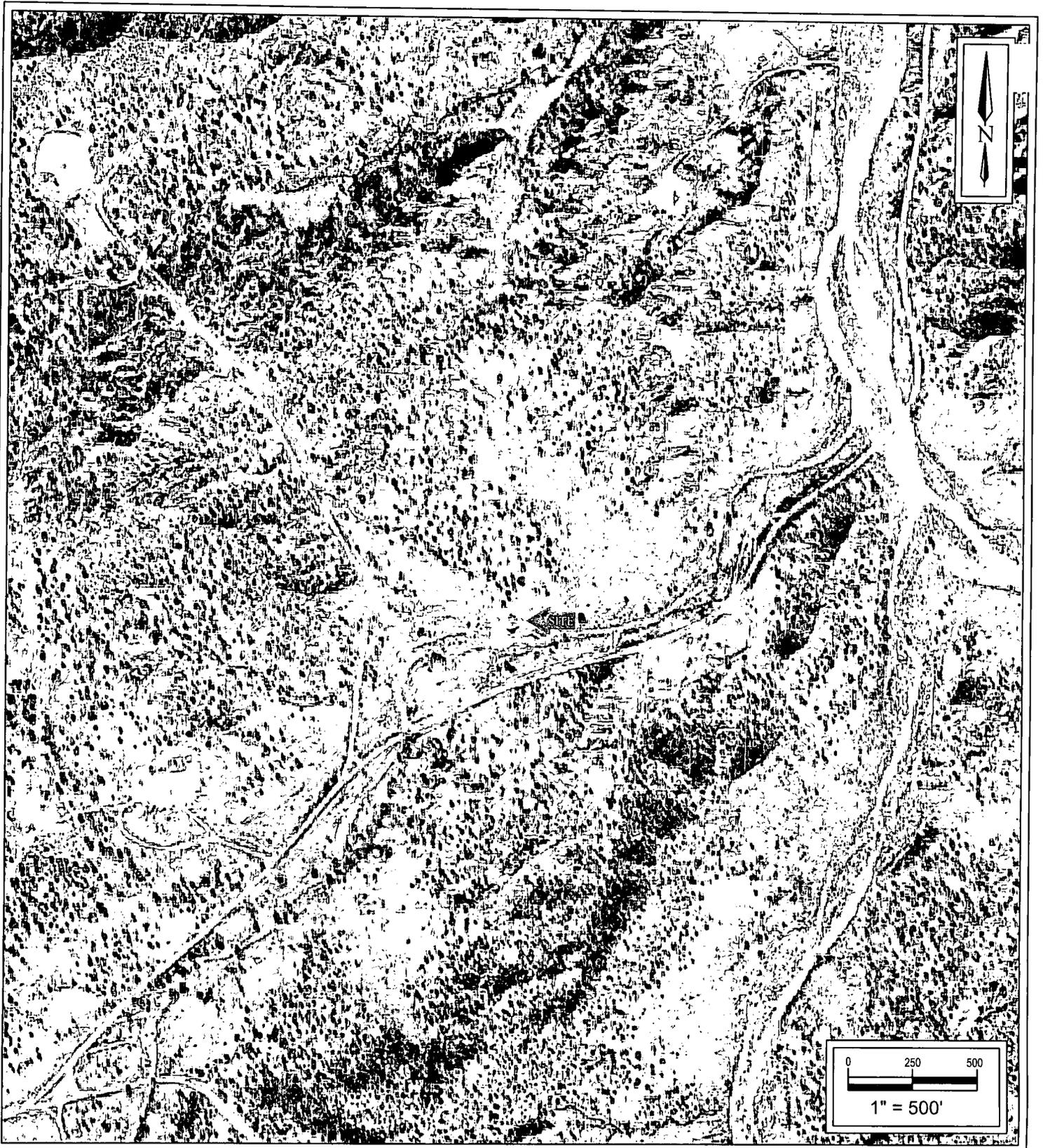


Lateral 2B-17 Pipeline Release  
 Rural San Juan County,  
 Navajo Nation, New Mexico

SWG Project No. 0413G015

Southwest  
 GEOSCIENCE

Figure 1  
 Topographic Map  
 East Fork Kutz Canyon Quadrangle  
 And Huerfanito Peak Quadrangle  
 1985

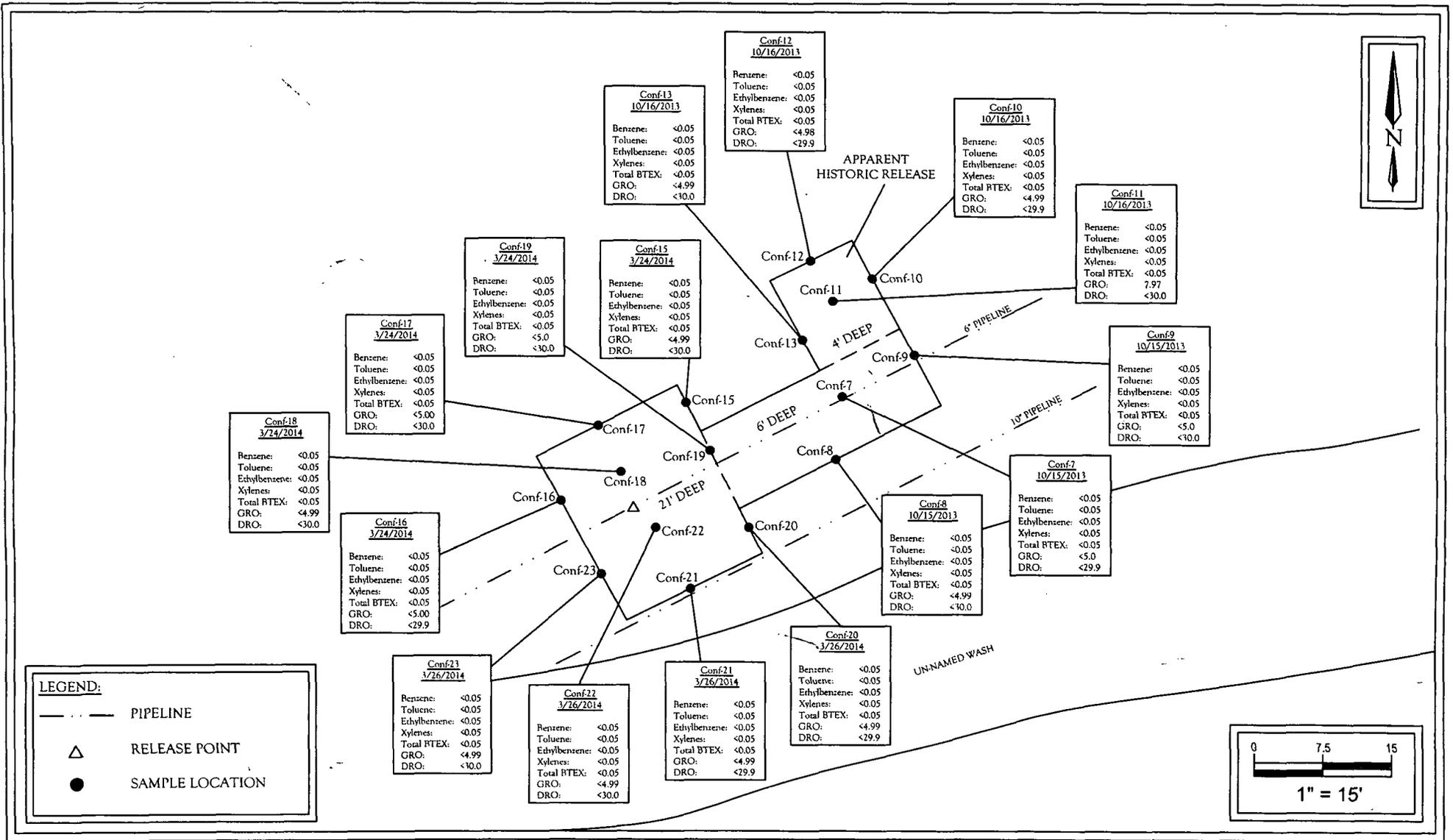


Lateral 2B-17 Pipeline Release  
Rural San Juan County,  
Navajo Nation, New Mexico

SWG Project No. 0413G015

Southwest  
GEOSCIENCE

Figure 2  
Site Vicinity Map  
2013 Aerial Photograph



Lateral 2B-17 Pipeline Release  
 Rural San Juan County,  
 Navajo Nation, New Mexico

SWG Project No. 0413G015

Southwest  
 GEOSCIENCE

Figure 3  
 Site Map with Soil  
 Analytical Results

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

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

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:  
Lateral 2B-17 Pipeline

3. Location of Material (Street Address, City, State or ULSTR):  
Unit B Sec 3 T 27N R 10W, 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 20 yd<sup>3</sup>/bbls Known Volume (to be entered by the operator at the end of the haul) 504 (yd<sup>3</sup>)/bbls

5. **10-11-13 GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

Runell Seale Runell Seale, 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**

Runell Seale, representative for Enterprise Field Services, LLC authorize ENVIROTECH to complete  
Generator Signature

the required testing/sign the Generator Waste Testing Certification.

Kendra Runney, representative for Envirotech, Inc 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.  
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: Kendra Runney  
SIGNATURE: Kendra Runney  
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 10/11/13  
TELEPHONE NO.: 505-632-0615

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

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

97057-0597

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:**  
Lateral 2B-17 Pipeline      *March '14*

3. **Location of Material (Street Address, City, State or ULSTR):**  
Unit B Sec 3 T 27N R 10W, 36.608982, -107.882305, 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 50 yd<sup>3</sup> / bbls      Known Volume (to be entered by the operator at the end of the haul) 270/1 yd<sup>3</sup> / bbls

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

I, *Thomas Long*, representative or authorized agent for Enterprise Field Services, LLC do hereby  
**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*, representative for Enterprise Field Services, LLC authorize ENVIROTECH to complete  
**Generator Signature**  
the required testing/sign the Generator Waste Testing Certification.

I, *Greg Crabtree*, representative for *Greg Crabtree* 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. *Fring M, Moss, West States, EMS,*  
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*  
SIGNATURE: *Greg Crabtree*  
Surface Waste Management Facility Authorized Agent

TITLE: *Environmental Manager*      DATE: *3/25/14*  
TELEPHONE NO.: 505-632-0615



# Bill of Lading

MANIFEST # 44865  
 DATE 10-10-13 JOB # 97057-0597

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 Lot	Clean Fill	-	10	-	MOSS	47	1320	Lee Moss
2	" "	2-BP 17	Soil	-	10	-	MOSS	15	1320	Nathan Buss
					20					
RESULTS:		LANDFARM EMPLOYEE:	<i>Gary Robinson</i> Certification of above receipt & placement			NOTES:  Roc				
<input checked="" type="checkbox"/>	CHLORIDE TEST									
<input checked="" type="checkbox"/>	PAINT FILTER TEST									

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Gary Maestas PHONE \_\_\_\_\_ DATE 10-10-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44869

DATE 10-11-13 JOB # 97057-0597

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	EMARRISC LOT 2B17	LF#	cont SOIL	E-21	10	-	Bet	105	9:35	Brian Stover
2	"	"	"	E-21	10	-	Bet	105	11:10	Brian Stover
3	"	"	"	E-21	10	-	Bet	105	12:55	Brian Stover
4	"	"	"	E-21	10	-	Bet	105	14:30	Brian Stover
5	"	"	"	E-21	10	-	Bet	105	15:45	Brian Stover
					50					
RESULTS:		LANDFARM EMPLOYEE:	 Certification of above receipt & placement			NOTES:				
4292	CHLORIDE TEST	2				ROC				
	PAINT FILTER TEST	2								

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. BET NAME Brian Stover SIGNATURE

COMPANY CONTACT David McDonald PHONE 419-8745 DATE 10-11-13

Signatures required prior to distribution of the legal document.

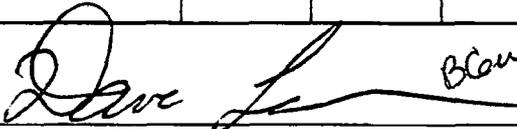


# Bill of Lading

MANIFEST # 44870

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

DATE 10-11-13 JOB # 97057-0597

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE
2	E-tech	Enterprise 1A+2B17	Clean Fill	—	10	—	Bet	105	9:35	Brian Sower
2	"	"	"	—	10	—	Bet	105	11:10	Brian Sower
3	"	"	"	—	10	—	Bet	105	12:55	Brian Sower
4	"	"	"	—	10	—	Bet	105	14:30	Brian Sower
				<del>—</del>	<del>10</del>	<del>—</del>	<del>Bet</del>	<del>105</del>	<del>15:45</del>	
					40					
RESULTS:		LANDFARM EMPLOYEE:				NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST		Certification of above receipt & placement			RD				
<input checked="" type="checkbox"/>	PAINT FILTER TEST									

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. BET NAME Brian Sower SIGNATURE Brian Sower  
 COMPANY CONTACT David McDonald PHONE 419-8745 DATE 10-11-13

Signatures required prior to distribution of the legal document.

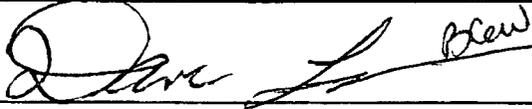


# Bill of Lading

MANIFEST # 44871

DATE 10-11-13 JOB # 97057-0597

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
2	E-tech	Site 2B-17	Class Fill	-	10	-	MOSS	47	13:05	Lee Moss
2	"	"	"	-	10	-	MOSS	47	14:45	Lee Moss
					20					
RESULTS:		LANDFARM EMPLOYEE:				NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST									
<input checked="" type="checkbox"/>	PAINT FILTER TEST	Certification of above receipt & placement			RD					

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT Gary Maestas PHONE \_\_\_\_\_ DATE 10-11-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44872  
 DATE 10-11-13 JOB # 97057-0597

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 LAT 2B17	LFI	cont SOIL	E-21	10	-	MOSS	47	10:05	Lee Moss
2	"	"	"	E-21	10	-	MOSS	47	13:05	Lee Moss
3	"	"	"	E-21	10	-	MOSS	47	14:45	Lee Moss
4	"	"	"	E-21	10	-	MOSS	47	16:40	Lee Moss
					40					
RESULTS:		LANDFARM	NOTES: <i>Blow</i> <i>Lee Moss</i> Certification of above receipt & placement							
292	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Gary Moester PHONE \_\_\_\_\_ DATE 10-11-13

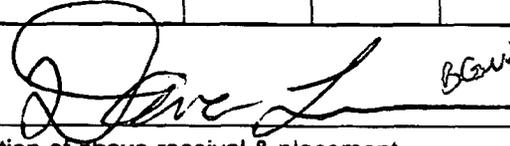
Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44877  
 DATE 10-11-13 JOB # 97057-0597

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	
2	ENTREPRENEUR CAT 2 B17	LFA	cont SOIL	E-21	10	-	Flying M	14	13:55	Toby Wahler	
2	"	"	"	E-21	10	-	Flying M	14	15:45	Toby Wahler	
					20						
RESULTS:		LANDFARM EMPLOYEE:	 Certification of above receipt & placement								NOTES:
L292	CHLORIDE TEST										
	PAINT FILTER TEST	1									roc

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. Flying M NAME Toby Wahler SIGNATURE Toby Wahler  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE \_\_\_\_\_

Signatures required prior to distribution of the legal document.

20





envirotech

23-17

# Bill of Lading

MANIFEST # 44884

DATE 10-14-13 JOB # 97057-0597

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 Lot <del>23-17</del>	Clean	—	12	—	BET	105	940	Brian Stork
2	"	2B-17	Fill	—	12	—	BET	105	1107	Brian Stork
3	"	"	"	—	12	—	<del>BET</del>	<del>105</del>	1325	Brian Stork
4	Void this	Line	Void this	line	36	—	BET	105		
RESULTS:		CHLORIDE TEST	PAINT FILTER TEST	LANDFARM EMPLOYEE:	NOTES:					
		/	/	Gay Robinson <sup>Blow</sup>						
				Certification of above receipt & placement						
				RD						

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. BET NAME David McNovel SIGNATURE Brian Stork  
 COMPANY CONTACT BET PHONE 419-8745 DATE 10-14-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44885  
 DATE 10-14-13 JOB # 97057-0597

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 LOT 2B-17	Clean Fill	-	12	-	Flying M.	14	1000	Toby Walker
2	"	"	SOIL	-	12	-	" "	14	1123	Toby Walker
					24					
RESULTS:		LANDFARM EMPLOYEE:	Gary Robinson <sup>Blaw</sup>			NOTES:				
/	CHLORIDE TEST	/	Certification of above receipt & placement			RD				
/	PAINT FILTER TEST	/								

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. Flying M. NAME Toby Walker SIGNATURE Toby Walker  
 COMPANY CONTACT Flying M. PHONE 505 632 1803 DATE 10-14-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44886

DATE 10-14-13 JOB # 97057-0597

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 CAT 2B-17	LFII	CONC SOIL	E-21	12	-	BET	105	1107	Brian Stora
2	"	"	"	E-21	12	-	BET	105	1325	Brian Stora
3	"	"	"	E-21	12	-	BET	105	15:05	Brian Stora
4	"	"	"	E-21	12	-	BET	105	1625	Brian Stora
					48					
RESULTS:		LANDFARM EMPLOYEE:		<i>Cary Robinson</i> <sup>Baw</sup> Certification of above receipt & placement			NOTES:  RDC			
L299	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								

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. \_\_\_\_\_ NAME \_\_\_\_\_ SIGNATURE Brian Stora  
 COMPANY CONTACT (BET) David McDon PHONE 505-419-8745 DATE 10-14-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44887

DATE 10-14-13 JOB # 97057-0597

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 Lot 2B-17	LF II	CON T SOIL	F-21	12	-	FLYING M	14	1123	Toby Wehler	
2	" "	" "	" "	E-21	12	-	"	14	1300	Toby Wehler	
					24						
RESULTS:		LANDFARM EMPLOYEE:	<i>Ray Palino</i> Certification of above receipt & placement						NOTES:		
L299	CHLORIDE TEST	1							RDC		
	PAINT FILTER TEST	1									

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. Flying M NAME Toby Wehler SIGNATURE Toby Wehler  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 10-14-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44894

DATE 10-15-13 JOB # Q17057-0597

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	Entel RR SC Cat 2B-17	LF#	cont Soil 4	B-22	10	-	Flying M	14	9:45	Toby Walker
2	"	"	"	B-22	10	-	"	14	11:10	Toby Walker
3	"	"	"	B-22	10	-	"	14	12:25	Toby Walker
4	"	"	"	B-22	10	-	"	14	13:45	Toby Walker
5	"	"	"	B-22	10	-	"	14	16:00	Toby Walker
					50					
RESULTS:		LANDFARM EMPLOYEE:					NOTES:			
L299	CHLORIDE TEST	2								
	PAINT FILTER TEST	2	Certification of above receipt & placement			RDC				

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. Flying M NAME Toby Walker SIGNATURE Toby Walker  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 10/15/13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44895

DATE 10-15-13 JOB # 97057-0597

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
2	E-tech	ENTER PR. 50 CAT 2B-17	clean Fill	-	10	-	Flying M	14	9:45	Toby Wahler
					10					
RESULTS:		LANDFARM EMPLOYEE:					NOTES:			
/	CHLORIDE TEST	/					RD			
/	PAINT FILTER TEST	/								
			Certification of above receipt & 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. Flying M NAME Toby Wahler SIGNATURE Toby Wahler  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 10/15/13

Signatures required prior to distribution of the legal document.

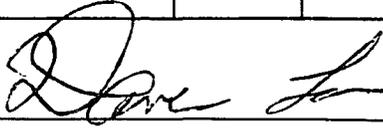


# Bill of Lading

MANIFEST # 44896

DATE 10-15-13 JOB # 97057-0597

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
2	Enterprise LAT 2B-17	LF II	cont. So. C	B-22	10	-	Bet	105	9:50	Brian Stover
2	"	"	"	B-22	10	-	Bet	105	11:35	Brian Stover
3	"	"	"	B-22	10	-	Bet	105	12:55	Brian Stover
4	"	"	"	B-22	10	-	Bet	105	14:10	Brian Stover
5	"	"	"	B-22	10	-	Bet	105	15:25	Brian Stover
6	"	"	"	B-22	10	-	Bet	105	16:40	Brian Stover
					60					
RESULTS:		LANDFARM EMPLOYEE:					NOTES:			
299	CHLORIDE TEST	2					RDC			
	PAINT FILTER TEST	2	Certification of above receipt & 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. BET NAME Brian Stover SIGNATURE 

COMPANY CONTACT David McDonald PHONE 419-8754 DATE 10-15-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44901  
 DATE 10-15-13 JOB # 97057-0597

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
2	Enterprise - CAL 2B-17	LFII	CONT Silt	B-22	10	-	MOSS	15	15:15	<i>[Signature]</i>
2	"	"	"	B-22	10	-	MOSS	15	16:45	<i>[Signature]</i>
					20					
RESULTS:		LANDFARM EMPLOYEE:	<i>[Signature]</i>			NOTES:				
L299	CHLORIDE TEST									
	PAINT FILTER TEST	1	Certification of above receipt & placement			RDC				

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. MOSS EXCAVATION NAME WATHAN BOMKIEWICZ SIGNATURE *[Signature]*  
 COMPANY CONTACT Lambert PHONE \_\_\_\_\_ DATE 10-15-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44905  
 DATE 10-16-13 JOB # 97057-0597

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 2B-17	LFTI	cont soil	B-23	12	-	Flying M	17	930	Toby Wahler	
2	"	"	"	B-23	12	-	"	17	1118	Toby Wahler	
3	"	"	"	B-23	12	-	"	17	1320	Toby Wahler	
4	"	"	"	B-23	12	-	"	17	1457	Toby Wahler	
5	"	"	"	B-23	12	-	"	17	1635	Toby Wahler	
					60						
RESULTS:		LANDFARM EMPLOYEE:		NOTES:							
299	CHLORIDE TEST	2	Garry Robinson								
	PAINT FILTER TEST	2	Certification of above receipt & placement				RDC				

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. Flying M NAME Toby Wahler SIGNATURE Toby Wahler  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 10-16-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44906  
 DATE 10-16-13 JOB # 97057-0597

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 LFII	LFII	cont soil	B-23	12	—	MOSS	47	930	Lee Moss
2	"	"	"	B-23	12	—	MOSS	47	1118	Lee Moss
3	"	"	"	B-23	12	—	MOSS	47	1300	Lee Moss
4	"	"	"	B-23	12	—	MOSS	47	1450	Lee Moss
5	"	"	"	B-23	12	—	MOSS	47	1647	Lee Moss
					60					
RESULTS:		LANDFARM EMPLOYEE:		Gary Robinson			NOTES:			
L299	CHLORIDE TEST	2								
	PAINT FILTER TEST	2	Certification of above receipt & placement			RDC				

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Gary Maestas PHONE \_\_\_\_\_ DATE 10-16-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44907

DATE 10-16-13 JOB # 97057-0597

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 Lot 2 B-17	LF II	Con't SO.L	B-23	12	-	BET	105	940	Brian Stover	
2	"	"	"	B-23	12	-	BET	105	1120	Brian Stover	
3	"	"	"	B-23	12	-	BET	105	1315	Brian Stover	
4	"	"	"	B-23	12	-	BET	105	1452	Brian Stover	
5	"	"	"	B-23	12	-	BET	105	1647	Brian Stover	
					60						
RESULTS:		LANDFARM EMPLOYEE:						NOTES:			
L299	CHLORIDE TEST	2						Certification of above receipt & placement			
	PAINT FILTER TEST	2									

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. BET NAME Brian Stover SIGNATURE Brian Stover  
 COMPANY CONTACT David McDonald PHONE 419-8745 DATE 10-16-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44909

DATE 10-16-13 JOB # 97057-0597

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	Clean Fill	-	12	-	MOSS	47	1118	Leo Moss
2	"	Lot 2B-17	Soil	-	120	-	MOSS	47	1300	Leo Moss
3	"	"	"	-	12	-	MOSS	47	1458	Leo Moss
					<u>36</u>					
RESULTS:		LANDFARM EMPLOYEE: <u>Gary Robinson</u>				NOTES:				
/	CHLORIDE TEST	Certification of above receipt & placement				RD				
/	PAINT FILTER TEST									

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. MOSS Excavation NAME Leo Moss SIGNATURE Leo Moss

COMPANY CONTACT Gary Moestas PHONE \_\_\_\_\_ DATE 10-16-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44910

DATE 10-16-13 JOB # 97057-0597

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 Lot 2B-17	Clean Fill SOIL	-	12	-	Flying M	<del>17</del>	1118	Toby Walker
2	"	"	"	-	12	-	"	17	1320	Toby Walker
3	"	"	"	-	12	-	"	17	1452	Toby Walker
					36					
RESULTS:		LANDFARM EMPLOYEE:	Garry Robinson			NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST	Certification of above receipt & placement			RD					
<input checked="" type="checkbox"/>	PAINT FILTER TEST									

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. Flying M NAME Toby Walker SIGNATURE Toby Walker  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 10/16/13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44911

DATE 10-16-13 JOB # 97057-0597

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	Eteeh	Enterprise Lot 23-17	Clean Fill	—	12	—	BET	105	1120	Brian Stover
2	"	"	SOIL	—	12	—	BET	105	1315	Brian Stover
3	"	"	"	—	12	—	BET	105	1454	Brian Stover
					36					
RESULTS:		LANDFARM EMPLOYEE:	Garry Robinson			NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST	Certification of above receipt & placement			RD					
<input checked="" type="checkbox"/>	PAINT FILTER TEST									

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. BET NAME Brian Stover SIGNATURE Brian Stover  
 COMPANY CONTACT David McDonald PHONE 719-8745 DATE 10-16-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44920

DATE 10-17-13 JOB # 97057-0597

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 lot 2B-17	Clean	-	12	-	MOSS	47	8:00	Lee Moss	
2	"	"	"	"	12	-	MOSS	47	10:11	Lee Moss	
3	"	"	"	"	12	-	MOSS	47	12:15	Lee Moss	
4	"	"	"	"	12	-	MOSS	47	13:15	Lee Moss	
					48						
RESULTS:		LANDFARM EMPLOYEE:		<i>Gary Robinson</i> Certification of above receipt & placement				NOTES:  <div style="text-align: right; font-size: 2em;">R</div>			
	CHLORIDE TEST		PAINT FILTER TEST								

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Gary Maestas PHONE \_\_\_\_\_ DATE 10-17-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44921  
 DATE 10-17-13 JOB # 97059-0597

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
2	ENTERPRISE cont 2B-17	LFII	cont SO2	B-22	12	-	MOSS	47	10:11	Lee Moss
2	"	"	"	B-22	12	-	MOSS	47	12:15	Lee Moss
3	"	"	"	B-22	12	-	MOSS	47	13:15	Lee Moss
						36				
RESULTS:		LANDFARM EMPLOYEE: <i>Lee Moss</i>				NOTES:				
4299	CHLORIDE TEST	1	Certification of above receipt & placement			R				
	PAINT FILTER TEST	1								

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. \_\_\_\_\_ NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE \_\_\_\_\_

Signatures required prior to distribution of the legal document.





# Bill of Lading

MANIFEST # 44923

DATE 10-17-13 JOB # 99057-0597

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	ENTRANCE CAT 2D-17	CFII	cont soil	B-22	12	-	Flying M	14	1011	Toby Wahler
2	"	"	"	B-22	12	-	"	"	14 12:15	Toby Wahler
3	"	"	"	B-22	12	-	"	"	14 13:45	Toby Wahler
36										
RESULTS:		LANDFARM EMPLOYEE:				NOTES:				
<299	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								
Certification of above receipt & placement			R							

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. Flying M NAME Toby Wahler SIGNATURE Toby Wahler  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE \_\_\_\_\_

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44931

DATE 10-18-13 JOB # 97057-0597

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 Clean Lot 2B-17	Fill	—	12	—	MOSS	2	800	Nathan B. McKinney
2	"	"	"	—	12	~	MOSS	2	1000	Nathan B. McKinney
3	"	"	"	—	12	—	MOSS	2	1236	Nathan B. McKinney
4	"	"	"	—	12	—	MOSS	2	14:30	Nathan B. McKinney
					48					
RESULTS:		LANDFARM EMPLOYEE:	<i>Gary Johnson</i> (Blow) Certification of above receipt & placement			NOTES:				
CHLORIDE TEST	PAINT FILTER TEST					RD				

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. MOSS Excavation NAME Nathan B. McKinney SIGNATURE Nathan B. McKinney  
 COMPANY CONTACT Lambert PHONE \_\_\_\_\_ DATE 10-18-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44932

DATE 10-18-13 JOB # 97057-0577

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 Clean	Lat 2817 Fill	-	12	-	Flying M	14	8:05	Toby Wahler				
2	"	"	"	-	12	-	"	14	10:05	Toby Wahler				
3	"	"	"	-	12	-	"	14	11:35	Toby Wahler				
4	"	"	"	-	12	-	"	14	13:05	Toby Wahler				
					48									
RESULTS:		LANDFARM EMPLOYEE:	<i>Gary Robinson</i> Certification of above receipt & placement <i>Blow</i>				NOTES:							
/	CHLORIDE TEST													
/	PAINT FILTER TEST										RD			

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. \_\_\_\_\_ NAME Toby Wahler SIGNATURE Toby Wahler  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE \_\_\_\_\_

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46340  
 DATE 3/25/14 JOB # 97057-0597

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 lateral 2B-17	LFII-5	cont. soil	B-21	10	-	Moss Excavation	47	950	Lee Moss
2	" "	LFII-5	" "	B-21	10	-	" "	17	950	of Kobz
3	" "	LFII-5	" "	B-21	10	-	" "	47	1150	Lee Moss
4	" "	LFII-5	" "	B-21	10	-	" "	17	1155	of Kobz
5	" "	LFII-5	" "	B-21	10	-	" "	47	1330	Lee Moss
6	" "	LFII-5	" "	B-21	10	-	" "	17	1335	of Kobz
7	" "	LFII-5	" "	B-21	10	-	" "	47	1520	Lee Moss
8	" "	LFII-5	" "	B-21	10	-	" "	17	1525	of Kobz
						80				
RESULTS:		LANDFARM EMPLOYEE: <u>Patrick Bateman</u> <sup>Blaw</sup>				NOTES:				
4286	CHLORIDE TEST	2	Certification of above receipt & placement							
	PAINT FILTER TEST	2								

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Gary Maestas PHONE \_\_\_\_\_ DATE 3-25-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46341

DATE 3/25/14 JOB # 97057-0597

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	Envirotech	ENTERPRISE CAT 2B17	CLEAN Fill	—	10	—	Moss Excavation	47	950	Lee Moss
2	"	"	"	—	10	—	"	17	950	G. Kobza
3	"	"	"	—	10	—	"	47	1150	Lee Moss
4	"	"	"	—	10	—	"	17	1155	G. Kobza
5	"	"	"	—	10	—	"	47	1330	Lee Moss
6	"	"	"	—	10	—	"	17	1335	G. Kobza
					60					
RESULTS:		LANDFARM EMPLOYEE: <u>Patrick Lateman</u> <i>Bew</i>				NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST	Certification of above receipt & placement								
<input checked="" type="checkbox"/>	PAINT FILTER TEST									

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Gary Maestas PHONE \_\_\_\_\_ DATE 3-25-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46342  
 DATE 3/25/14 JOB # 97057-0597

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 Lateral 2B-17	LFII-5	cont. Soil	A-21	10	-	Flying M	15	1000	Mark Lopez
2	"	"	"	A-21	10	-	"	15	1200	Mark Lopez
3	"	"	"	A-21	10	-	Flying M	15	1340	Mark Lopez
4	"	"	"	A-21	10	-	Flying M	15	1530	Mark Lopez
					40					
RESULTS:			LANDFARM EMPLOYEE:			NOTES:				
4286	CHLORIDE TEST	1	Patrick Steman <sup>Blew</sup>							
	PAINT FILTER TEST	1	Certification of above receipt & 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. FLYING M NAME MARK LOPEZ SIGNATURE Mark Lopez  
 COMPANY CONTACT Russ Moss PHONE 326 0254 DATE 3-25-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46343

DATE 3/25/14 JOB # 97057-097

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	Envirotech	Enterprise CAT 2B17	Clean Fill	—	10	—	Flying M	15	1000	Mark Lopez	
2	"	"	"	—	10	—	"	15	1200	Mark Lopez	
3	"	"	"	—	10	—	"	15	1340	Mark Lopez	
					30						
RESULTS:		LANDFARM EMPLOYEE:		<i>Patrick B. Sten</i> Certification of above receipt & placement				NOTES:			
<input checked="" type="checkbox"/>	CHLORIDE TEST	<input checked="" type="checkbox"/>									
<input checked="" type="checkbox"/>	PAINT FILTER TEST										

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. FLYING M NAME MARK LOPEZ SIGNATURE Mark Lopez  
 COMPANY CONTACT RUSS MOSS PHONE 3200254 DATE 3-25-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46344  
 DATE 3/25/14 JOB # 97057-0597

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	Envirotech	ENTERPRISE LOT 2B 17	clean fill	—	10	—	Westates	515	1000	Manuel M. Maestas
2	"	"	"	—	10	—	"	515	1155	Manuel M. Maestas
3	"	"	"	—	10	—	Westates	515	1345	Manuel M. Maestas
					30					
RESULTS:		LANDFARM EMPLOYEE: <u>Blaw</u>		NOTES:						
/	CHLORIDE TEST	/	Certification of above receipt & placement							
/	PAINT FILTER TEST	/								

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. WSEC NAME Manuel M. Gutierrez SIGNATURE Manuel M. Maestas  
 COMPANY CONTACT Aery Maestas PHONE 970 309 6783 DATE 3-25-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46345

DATE 3/25/14 JOB # 97057-0597

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 lateral 2B-17	LFII-S	Cont. Soil	A-21	10	-	Weststates	515	1000	Manuel M. Rojas	
2	"	"	"	A-21	10	-	Weststates	515	1155	Manuel M. Rojas	
3	"	"	"	A-21	10	-	Weststates	515	1345	Manuel M. Rojas	
4	"	"	"	A-21	10	-	Weststates	515	1530	Manuel M. Rojas	
					40						
RESULTS:		LANDFARM EMPLOYEE:		<i>Patrick J. Stemann</i> Certification of above receipt & placement				NOTES:			
4286	CHLORIDE TEST	1									
	PAINT FILTER TEST	1									

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. WSSC NAME Manuel M. Gutierrez SIGNATURE Manuel M. Rojas  
 COMPANY CONTACT Cary Maestas PHONE (970) 309 6783 DATE 3-25-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46354  
 DATE 3-26-14 JOB # 97057-0597

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 Lot 2B-17	Clean Fill	-	10	-	West states	515	725	Manuel M. Gutierrez
2	"	" "	" "	-	10	-	" "	515	950	Manuel M. Gutierrez
					20					
RESULTS:		LANDFARM EMPLOYEE: <u>Gary Robinson</u> <sup>EL</sup>				NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST	Certification of above receipt & placement								
<input checked="" type="checkbox"/>	PAINT FILTER TEST									

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. West States NAME Manuel M. Gutierrez SIGNATURE Manuel M. Gutierrez  
 COMPANY CONTACT Gary Maestas PHONE (505) 860 9984 DATE 3-26-14  
 Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46356

DATE 3-26-14 JOB # 97057-0597

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 Clean lot 2B-17	Fill	-	10	-	Flying m	15	7:52	M Lopez
2	"	"	SOIL	-	10	-	"	15	9:52	M Lopez
3	"	"	"	-	10	-	"	15	11:22	M Lopez
4	"	"	"	-	10	-	"	15	12:55	M Lopez
5	"	"	"	-	10	-	"	15	14:30	M Lopez
					50					
RESULTS:		LANDFARM EMPLOYEE:		NOTES:						
<input checked="" type="checkbox"/>	CHLORIDE TEST	GARY ROBINSON <sup>EL</sup>								
<input checked="" type="checkbox"/>	PAINT FILTER TEST	Certification of above receipt & 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. Flying m. NAME MARK LOPEZ SIGNATURE [Signature]  
 COMPANY CONTACT [Signature] PHONE \_\_\_\_\_ DATE 3-26-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46357  
 DATE 3/26/14 JOB # 97257-0597

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 lat 2B-17	clean Fill	-	10	-	Moss Excavation	17	820	Oj Kobza
2	"	"	"	-	10	-	"	47	820	Lee Moss
3	"	"	"	-	10	-	"	47	950	Lee Moss
4	"	"	"	-	10	-	"	17		Oj Kobza
5	"	"	"	-	10	-	"	47	1155	Lee Moss
6	"	"	"	-	10	-	"	17		Oj Kobza
7	"	"	"	-	10	-	"	17	1345	Oj Kobza
8	"	"	"	-	10	-	"	47	1345	Lee Moss
9	"	"	"	-	10	-	"	47	15:15	Lee Moss
					90					
RESULTS:		LANDFARM EMPLOYEE: <u>Patrock Esten</u>		NOTES:						
<input checked="" type="checkbox"/>	CHLORIDE TEST									
<input checked="" type="checkbox"/>	PAINT FILTER TEST	Certification of above receipt & 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. Moss Ex NAME Oj Kobza SIGNATURE Oj Kobza  
 COMPANY CONTACT Lee Moss PHONE 505-801-1803 DATE 3/26/14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46360  
 DATE 3-26-14 JOB # 97057-0597

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 Lot 2B-17	LF II-5	CON. F Soil	D-20	10	-	MOSS	47	950	Lee Moss
2	" "	" "	" "	D-20	10	-	MOSS	17	950	Lee Moss
3	" "	" "	" "	D-20	10	-	MOSS	47	1155	Lee Moss
4	" "	" "	" "	D-20	10	-	MOSS	17	1155	Lee Moss
5	" "	" "	" "	D-20	10	-	MOSS	17	1335	Lee Moss
6	" "	" "	" "	D-20	10	-	MOSS	17	1345	Lee Moss
	VOID this line	LINE	<hr/>			10	MOSS	47	1545	Lee Moss
					10					
RESULTS:		LANDFARM EMPLOYEE: <u>Patrick Peterson</u>				NOTES: <u>CL test strips on load 1 + 6</u>				
<286	CHLORIDE TEST	2	Certification of above receipt & placement							
	PAINT FILTER TEST	2								

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Lee Moss PHONE 801-1803 DATE 3-26-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46361

DATE 3-26-14 JOB # 97057-0.597

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 Lot 2B-17	LFII-5	Con't SOIL	D-20	10	-	West States	515	950	Manuel M. Gutierrez
2	" "	"	"	D-20	10	-	" "	515	1151	Manuel M. Gutierrez
					20					
RESULTS:			LANDFARM EMPLOYEE:	<i>Gary Robinson - EL</i> Certification of above receipt & placement			NOTES:			
< 286	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								

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. West States NAME Manuel M. Gutierrez SIGNATURE Manuel M. Gutierrez  
 COMPANY CONTACT Gary PHONE (505)-860-8984 DATE 3-26-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46362  
 DATE 3-26-14 JOB # 97057-0597

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 Lat 2B-17	LF II-5	Cont SOIL	D-20	10	-	Flying M	15	9:52	Mark Lopez
2	" "	" "	Cont Soil	D-20	10	-	Flying M	15	11:22	M Lopez
3	" "	" "	Cont Soil	D-20	10	-	Flying M	15	12:55	M Lopez
					30					
RESULTS:			LANDFARM EMPLOYEE:	Certification of above receipt & placement <i>Cary Robinson</i> - EL			NOTES:			
< 28%	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								

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. Flying M. NAME MARK WOPSZ SIGNATURE Mark Lopez  
 COMPANY CONTACT Lee Moss PHONE 505-801-1803 DATE 3-26-14

Signatures required prior to distribution of the legal document.





# Bill of Lading

MANIFEST # 46373

DATE 3/27/14 JOB # 97057-0597

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	Envirotech	Enterprise Lot 213 17	Clean Fill	—	10	—	Flying M	15	800	<i>[Signature]</i>
2	"	"	Clean Fill	—	10	—	Flying M	15	955	<i>[Signature]</i>
3	"	"	Clean Fill	—	10	—	Flying M	15	1115	<i>[Signature]</i>
4	"	"	Clean Fill	—	10	—	Flying M	15	1235	<i>[Signature]</i>
5	"	"	Clean Fill	—	10	—	Flying M	15	1400	<i>[Signature]</i>
6	"	"	Clean Fill	—	10	—	"	15	15:20	<i>[Signature]</i>
					60					
RESULTS:		LANDFARM EMPLOYEE:		<i>[Signature]</i> EL Certification of above receipt & placement		NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST	<input checked="" type="checkbox"/>								
<input checked="" type="checkbox"/>	PAINT FILTER TEST	<input checked="" type="checkbox"/>								

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. FLYING M NAME MARK LOPEZ SIGNATURE *[Signature]*  
 COMPANY CONTACT Russ Moss PHONE \_\_\_\_\_ DATE MARCH 27/14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46374  
 DATE 3/27/14 JOB # 97057-0597

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	Envirotech	Enterprise Lab. 2317	Clean Fill	—	10	—	Moss	47	805	Lee Moss
2	"	"	clean fill	—	10	—	Moss	17	810	Og Kobza
3	"	"	Clean Fill	—	10	—	Moss	17	955	Og Kobza
4	"	"	Clean Fill	—	10	—	Moss	47	1000	Lee Moss
5	"	"	Clean Fill	—	10	—	Moss	47	1130	Lee Moss
6	"	"	Clean Fill	—	10	—	Moss	17	1130	Og Kobza
7	"	"	Clean Fill	—	10	—	Moss	47	1308	Lee Moss
8	"	"	Clean Fill	—	10	—	Moss	17	1310	Og Kobza
9	"	"	Clean Fill	—	10	—	Moss	47	1500	Lee Moss
10	"	"	Clean Fill	—	10	—	Moss	17	1500	Og Kobza
					100					
RESULTS:		LANDFARM EMPLOYEE:		Patrick <i>Berman</i> EL			NOTES:			
<input checked="" type="checkbox"/>	CHLORIDE TEST	<input checked="" type="checkbox"/>	Certification of above receipt & placement							
<input checked="" type="checkbox"/>	PAINT FILTER TEST	<input checked="" type="checkbox"/>								

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Lee Moss PHONE 801-1803 DATE 3-27-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46384

DATE 3-28-14 JOB # 97057-0597

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 Lot 2B-17	Clean Fill	-	10	-	West States	515	756	
2	"	"	SOIL	-	10	-		515	930	
					<u>20</u>					
RESULTS:		LANDFARM	EL EMPLOYEE:			NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST	EMPLOYEE:								
<input checked="" type="checkbox"/>	PAINT FILTER TEST	Certification of above receipt & 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. West States NAME Zack Toney SIGNATURE

COMPANY CONTACT \_\_\_\_\_ PHONE 505-436-9448 DATE 3-28-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46385

DATE 3-28-14 JOB # 97057-0597

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	<del>Envtech</del>	Enterprise Clean Lot 2B-17	Fill Soil		10	-	MOSS	47	8:13	Lee Moss
2					10	-	MOSS	17	8:14	Gy Kobzga
3	u	u	u	u	10	-	MOSS	47	9:45	Lee Moss
4	u	u	u	u	10	-	MOSS	17	9:45	Gy Kobzga
					40					
RESULTS:		LANDFARM EMPLOYEE:	<div style="display: flex; justify-content: space-between;"> <span>EL</span> <span>Gary Robinson</span> </div>				NOTES:			
<input checked="" type="checkbox"/>	CHLORIDE TEST	<input checked="" type="checkbox"/>	Certification of above receipt & placement							
<input checked="" type="checkbox"/>	PAINT FILTER TEST	<input checked="" type="checkbox"/>								

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. MOSS. NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT Lee Moss PHONE 801-1803 DATE 3-28-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 46386

DATE 3-28-14 JOB # 97057-0597

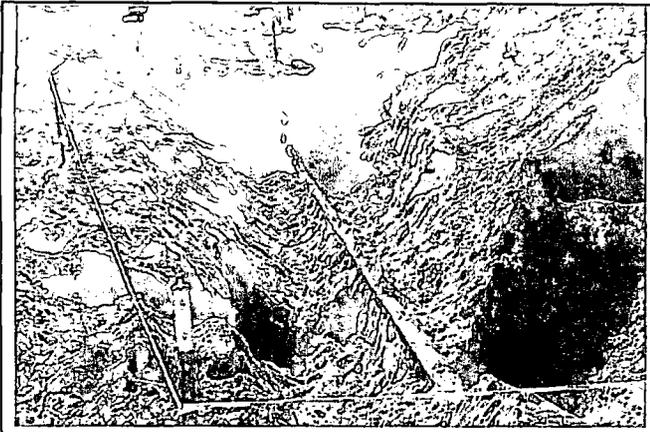
PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

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 Clean Lot 2B-17	Fill Soil	-	10	-	Flying m	15	0805	[Signature]
2	"	"	"	-	10	-	Flying m	15	0928	[Signature]
					20					
RESULTS:		LANDFARM EMPLOYEE:	Bay Robinson <sup>EL</sup>			NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST	Certification of above receipt & placement								
<input checked="" type="checkbox"/>	PAINT FILTER TEST									

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. \_\_\_\_\_ NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 3-28-14

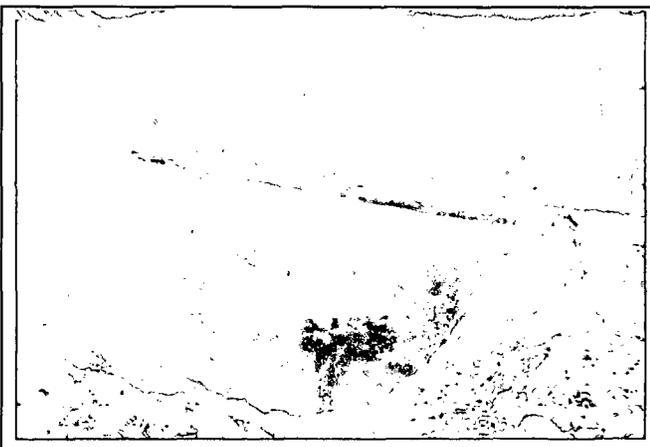
Signatures required prior to distribution of the legal document.



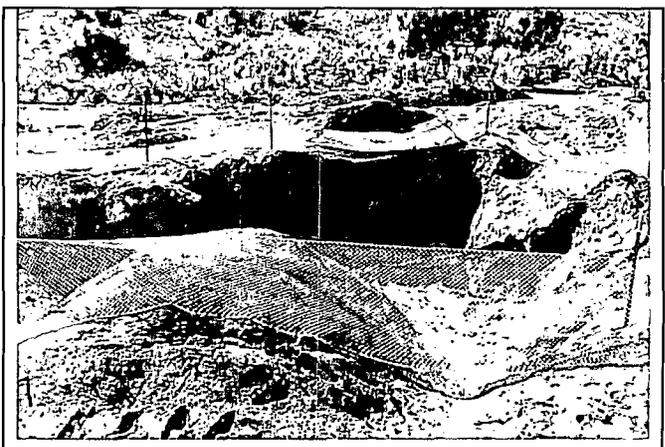
1.) Early stages of excavation. Clean fill (reddish soil) was placed on pipeline for equipment support.



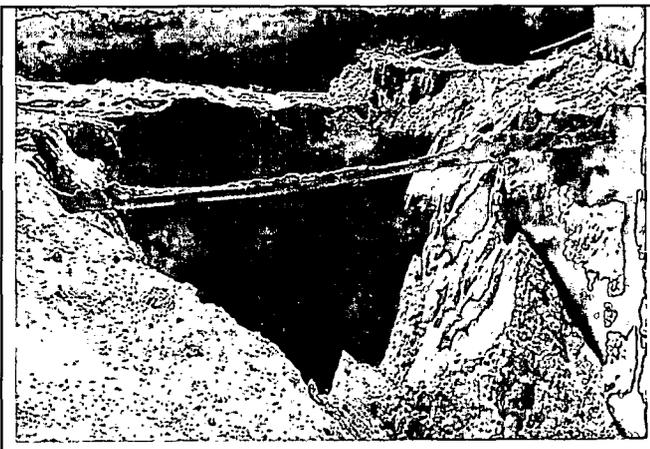
2.) View of excavation of apparent historic release at northeast portion of excavation (note apparent staining).



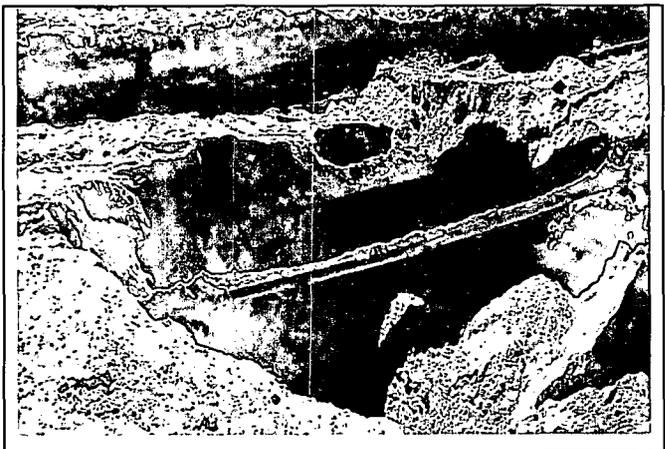
3.) Limit of excavation (15') reached with on-site equipment in October 2013.



4.) View of fencing being removed prior to resumption of excavation activities in March 2013.



5.) Excessive sloughing continues to challenge excavation activities.



6.) A total depth of 21 feet is achieved in the source area, and soil stability continues to provide challenges (note exposed adjacent pipeline).

**TABLE 1-Draft**  
Lateral 2B-17 Pipeline Release  
**SOIL ANALYTICAL RESULTS**

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, Minerals & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
<b>Confirmation Samples From Soils Which Were Removed by Excavation for Disposal/Treatment</b>									
S-1	10.13.13	4.0	<0.05	<0.05	<0.05	0.08	0.08	<5.06	<30.5
S-2	10.13.13	4.0	<0.05	0.13	0.06	0.95	1.13	8.95	213
S-3	10.13.13	3.5	<0.05	<0.05	<0.05	0.51	0.51	12.6	193
S-4	10.13.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	5.65	<29.9
S-5	10.13.13	7.0	Not Analyzed - exceedance based on PID reading						
Conf-14	10.17.13	15.0	0.79	8.14	3.21	38.3	50.4	249	3,580
<b>Confirmation Samples From Soils Removed as Overburden</b>									
Conf-6	10.15.13	5.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0
<b>Confirmation Samples From Soils Remaining in Place</b>									
Conf-7	10.15.13	6.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.0	<29.9
Conf-8	10.15.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0
Conf-9	10.15.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.0	<30.0
Conf-10	10.16.13	3.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<29.9
Conf-11	10.16.13	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	7.97	<30.0
Conf-12	10.16.13	3.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.98	<29.9
Conf-13	10.16.13	3.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0
Conf-15	3.24.14	14.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0
Conf-16	3.24.14	12.0-18.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.00	<29.9
Conf-17	3.24.14	12.0-16.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.00	<30.0
Conf-18	3.24.14	North Floor Comp. 21.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0
Conf-19	3.24.14	16.0-20.0	<0.05	<0.05	<0.05	<0.05	<0.05	<5.0	<30.0
Conf-20	3.26.14	SE Wall Composite	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<29.9
Conf-21	3.26.14	S Wall Composite	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<29.9
Conf-22	3.26.14	South Floor Comp. 21.0	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0
Conf-23	3.26.14	SW Wall Composite	<0.05	<0.05	<0.05	<0.05	<0.05	<4.99	<30.0

Note: Concentrations in bold and yellow exceed the applicable OCD Remediation Action Level  
 NE = Not Established  
 \* = This area was subsequently over-excavated



## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16203  
Samples Received: 10/8/2013 3:01:00PM  
Job Number: 07174-0003  
Work Order: P310030  
Project Name/Location: 2B-17

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 10/10/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
---	--	------------------------------

**Analytical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-1	P310030-01A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.
S-2	P310030-02A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.
S-3	P310030-03A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.
S-4	P310030-04A	Soil	10/08/13	10/08/13	Glass Jar, 4 oz.

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

[envirotech-inc.com](http://envirotech-inc.com)  
[laboratory@envirotech-inc.com](mailto:laboratory@envirotech-inc.com)

Southwest Geoscience  
2351 W. Northwest Hwy  
Dallas TX, 75220

Project Name: 2B-17  
Project Number: 07174-0003  
Project Manager: Kyle Summers

Reported:  
10-Oct-13 08:45

S-1

P310030-01 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
p,m-Xylene	0.08	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total Xylenes	0.08	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total BTEX	0.08	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		83.7 %			80-120	1341022	10/09/13	10/09/13	EPA 8021B
<i>Surrogate: 1,3-Dichlorobenzene</i>		81.4 %			80-120	1341022	10/09/13	10/09/13	EPA 8021B
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	5.06	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.5	mg/kg	1	1341023	10/09/13	10/09/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	5.06	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
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S-2

P310030-02 (Solid)

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B		
Toluene	0.13	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B		
Ethylbenzene	0.06	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B		
p,m-Xylene	0.69	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B		
o-Xylene	0.26	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B		
Total Xylenes	0.95	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B		
Total BTEX	1.13	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		100 %		80-120	1341022	10/09/13	10/09/13	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		94.6 %		80-120	1341022	10/09/13	10/09/13	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	8.95	4.97	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D		
Diesel Range Organics (C10-C28)	213	30.1	mg/kg	1	1341023	10/09/13	10/09/13	EPA 8015D		
GRO and DRO Combined Fractions	222	4.97	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
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S-3

P310030-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
p,m-Xylene	0.40	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
o-Xylene	0.11	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total Xylenes	0.51	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total BTEX	0.51	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: Bromochlorobenzene		92.9 %	80-120		1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		84.5 %	80-120		1341022	10/09/13	10/09/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	12.6	5.07	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D	
Diesel Range Organics (C10-C28)	193	30.3	mg/kg	1	1341023	10/09/13	10/09/13	EPA 8015D	
GRO and DRO Combined Fractions	206	5.07	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
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**S-4**

**P310030-04 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: Bromochlorobenzene		82.9 %		80-120	1341022	10/09/13	10/09/13	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		81.2 %		80-120	1341022	10/09/13	10/09/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	5.65	5.00	mg/kg	1	1341022	10/09/13	10/09/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1341023	10/09/13	10/09/13	EPA 8015D	
GRO and DRO Combined Fractions	5.65	5.00	mg/kg		[CALC]	10/09/13	10/09/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
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**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1341022 - Purge and Trap EPA 5030A**

<b>Blank (1341022-BLK1)</b>			Prepared & Analyzed: 09-Oct-13							
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	45.5		ug/L	50.0		90.9	80-120			
Surrogate: Bromochlorobenzene	46.4		"	50.0		92.8	80-120			

<b>Duplicate (1341022-DUP1)</b>			Source: P310030-01		Prepared & Analyzed: 09-Oct-13					
Benzene	ND	0.05	mg/kg		ND					30
Toluene	ND	0.05	"		ND					30
Ethylbenzene	ND	0.05	"		ND					30
p,m-Xylene	0.09	0.05	"		0.08			15.1		30
o-Xylene	ND	0.05	"		ND					30
Surrogate: 1,3-Dichlorobenzene	44.9		ug/L	50.0		89.7	80-120			
Surrogate: Bromochlorobenzene	47.1		"	50.0		94.2	80-120			

<b>Matrix Spike (1341022-MS1)</b>			Source: P310030-01		Prepared & Analyzed: 09-Oct-13					
Benzene	45.2		ug/L	50.0	0.36	89.8	39-150			
Toluene	45.6		"	50.0	0.63	89.9	46-148			
Ethylbenzene	45.7		"	50.0	0.21	91.0	32-160			
p,m-Xylene	92.4		"	100	1.56	90.9	46-148			
o-Xylene	46.6		"	50.0	0.65	91.8	46-148			
Surrogate: 1,3-Dichlorobenzene	45.2		"	50.0		90.3	80-120			
Surrogate: Bromochlorobenzene	47.8		"	50.0		95.6	80-120			

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com  
laboratory@envirotech-inc.com



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1341022 - Purge and Trap EPA 5030A**

<b>Blank (1341022-BLK1)</b>				Prepared & Analyzed: 09-Oct-13						
Gasoline Range Organics (C6-C10)	5.79	4.95	mg/kg							B
<b>Duplicate (1341022-DUP1)</b>				Source: P310030-01 Prepared & Analyzed: 09-Oct-13						
Gasoline Range Organics (C6-C10)	ND	5.05	mg/kg		ND				30	
<b>Matrix Spike (1341022-MS1)</b>				Source: P310030-01 Prepared & Analyzed: 09-Oct-13						
Gasoline Range Organics (C6-C10)	0.39		mg/L	0.450	0.08	69.0	75-125			SPK1

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1341023 - DRO Extraction EPA 3550C</b>										
<b>Blank (1341023-BLK1)</b> Prepared & Analyzed: 09-Oct-13										
Diesel Range Organics (C10-C28)	ND	30.1	mg/kg							
<b>Duplicate (1341023-DUP1)</b> Source: P310030-01 Prepared & Analyzed: 09-Oct-13										
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg		ND				30	
<b>Matrix Spike (1341023-MS1)</b> Source: P310030-01 Prepared & Analyzed: 09-Oct-13										
Diesel Range Organics (C10-C28)	244		mg/L	250	10.6	93.3	75-125			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 10-Oct-13 08:45
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**Notes and Definitions**

- SPK1 The spike recovery for this QC sample is outside of control limits.
- B Analyte is found in the associated blank as well as in the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16203

Client: SWG / EPROD		Project Name / Location: 2B-17		ANALYSIS / PARAMETERS													
Email results to: KYLE SUMMERS		Sampler Name: AARON BRYANT		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
Client Phone No.: 903-821-5603		Client No.: 07174-0003															

Sample No. / Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
					HNO <sub>3</sub>	HCl														
S-1	10/8/13	1330	P310030-01	1x4oz			X	X											X	X
S-2	↓	1335	P310030-02	↓			X	X											X	X
S-3	↓	1340	P310030-03	↓			X	X											X	X
S-4	↓	1345	P310030-04	↓			X	X											X	X

Relinquished by: (Signature) <i>[Signature]</i>	Date: 10/8/13	Time: 15:01	Received by: (Signature) <i>[Signature]</i>	Date: 10/8/13	Time: 15:01
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Relinquished by: (Signature)	Received by: (Signature)
------------------------------	--------------------------

Sample Matrix	RUSH
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>	

Sample(s) dropped off after hours to secure drop off area.



RB21200  
CL15405



## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16206  
Samples Received: 10/14/2013 4:14:00PM  
Job Number: 07174-0003  
Work Order: P310054  
Project Name/Location: 2B-17

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 10/16/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 16-Oct-13 15:13
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**Analytical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Conf-10	P310054-01A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.
Conf-11	P310054-02A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.
Conf-12	P310054-03A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.
Conf-13	P310054-04A	Soil	10/14/13	10/14/13	Glass Jar, 4 oz.

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Southwest Geoscience  
2351 W. Northwest Hwy  
Dallas TX, 75220

Project Name: 2B-17  
Project Number: 07174-0003  
Project Manager: Kyle Summers

Reported:  
16-Oct-13 15:13

**Conf-10**  
**P310054-01 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		97.7 %		80-120	1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		94.2 %		80-120	1342005	10/15/13	10/15/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1342004	10/15/13	10/15/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	10/15/13	10/15/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 16-Oct-13 15:13
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**Conf-11**  
**P310054-02 (Solid)**

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8021B	
Toluene	ND	0.05	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		101 %		80-120		1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		98.2 %		80-120		1342005	10/15/13	10/15/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	7.97	4.98	mg/kg		1	1342005	10/15/13	10/15/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		1	1342004	10/15/13	10/15/13	EPA 8015D	
GRO and DRO Combined Fractions	7.97	4.98	mg/kg			[CALC]	10/15/13	10/15/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 16-Oct-13 15:13
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**Conf-12**  
**P310054-03 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		92.7 %		80-120	1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		94.0 %		80-120	1342005	10/15/13	10/15/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1342004	10/15/13	10/15/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.98	mg/kg		[CALC]	10/15/13	10/15/13	EPA 8015D	

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Southwest Geoscience  
2351 W. Northwest Hwy  
Dallas TX, 75220

Project Name: 2B-17  
Project Number: 07174-0003  
Project Manager: Kyle Summers

Reported:  
16-Oct-13 15:13

**Conf-13**

**P310054-04 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		101 %	80-120		1342005	10/15/13	10/15/13	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		101 %	80-120		1342005	10/15/13	10/15/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1342005	10/15/13	10/15/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342004	10/15/13	10/15/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	10/15/13	10/15/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 16-Oct-13 15:13
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**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1342005 - Purge and Trap EPA 5030A**

Blank (1342005-BLK1)			Prepared: 14-Oct-13 Analyzed: 16-Oct-13							
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	47.0		ug/L	50.0		94.0	80-120			
Surrogate: Bromochlorobenzene	45.9		"	50.0		91.8	80-120			

Duplicate (1342005-DUP1)			Source: P310047-01		Prepared: 14-Oct-13 Analyzed: 16-Oct-13					
Benzene	ND	0.05	mg/kg		ND					30
Toluene	ND	0.05	"		ND					30
Ethylbenzene	ND	0.05	"		ND					30
p,m-Xylene	ND	0.05	"		ND					30
o-Xylene	ND	0.05	"		ND					30
Surrogate: 1,3-Dichlorobenzene	43.9		ug/L	50.0		87.9	80-120			
Surrogate: Bromochlorobenzene	43.7		"	50.0		87.4	80-120			

Matrix Spike (1342005-MS1)			Source: P310047-01		Prepared: 14-Oct-13 Analyzed: 16-Oct-13					
Benzene	55.0		ug/L	50.0	0.21	109	39-150			
Toluene	55.6		"	50.0	0.43	110	46-148			
Ethylbenzene	53.6		"	50.0	0.08	107	32-160			
p,m-Xylene	107		"	100	0.46	106	46-148			
o-Xylene	53.6		"	50.0	0.19	107	46-148			
Surrogate: 1,3-Dichlorobenzene	50.6		"	50.0		101	80-120			
Surrogate: Bromochlorobenzene	48.9		"	50.0		97.7	80-120			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 16-Oct-13 15:13
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1342004 - DRO Extraction EPA 3550C**

<b>Blank (1342004-BLK1)</b>		Prepared: 14-Oct-13 Analyzed: 15-Oct-13								
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
<b>Duplicate (1342004-DUP1)</b>		Source: P310047-01		Prepared: 14-Oct-13 Analyzed: 15-Oct-13						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg		ND				30	
<b>Matrix Spike (1342004-MS1)</b>		Source: P310047-01		Prepared: 14-Oct-13 Analyzed: 15-Oct-13						
Diesel Range Organics (C10-C28)	236		mg/L	250	2.96	93.4	75-125			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 16-Oct-13 15:13
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1342005 - Purge and Trap EPA 5030A**

<b>Blank (1342005-BLK1)</b>		Prepared: 14-Oct-13 Analyzed: 16-Oct-13								
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
<b>Duplicate (1342005-DUP1)</b>		<b>Source: P310047-01</b>		Prepared: 14-Oct-13 Analyzed: 16-Oct-13						
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg		ND				30	
<b>Matrix Spike (1342005-MS1)</b>		<b>Source: P310047-01</b>		Prepared: 14-Oct-13 Analyzed: 16-Oct-13						
Gasoline Range Organics (C6-C10)	0.64		mg/L	0.450	0.04	132	75-125			SPK1

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	<b>Reported:</b> 16-Oct-13 15:13
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**Notes and Definitions**

- SPK1 The spike recovery for this QC sample is outside of control limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16206

Page 11 of 11

Client: <b>SWG/EROD</b>	Project Name / Location: <b>2B-17</b>	ANALYSIS / PARAMETERS																																																												
Email results to: <b>Ryle Summers</b>	Sampler Name: <b>Aaron Bryant</b>	<table border="1" style="width:100%; border-collapse: collapse; font-size: 8px;"> <tr> <td>TPH (Method 8015)</td> <td>BTEX (Method 8021)</td> <td>VOC (Method 8260)</td> <td>RCRA 8 Metals</td> <td>Cation / Anion</td> <td>RCI</td> <td>TCLP with H/P</td> <td>CO Table 910-1</td> <td>TPH (418.1)</td> <td>CHLORIDE</td> <td>Sample Cool</td> <td>Sample Intact</td> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> </tr> </table>	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact	X	X									✓	✓	X	X									✓	✓	X	X									✓	✓	X	X									✓	✓
TPH (Method 8015)	BTEX (Method 8021)		VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact																																																		
X	X									✓	✓																																																			
X	X									✓	✓																																																			
X	X									✓	✓																																																			
X	X									✓	✓																																																			
Client Phone No.: <b>903 821 5603</b>	Client No.: <b>07174-0003</b>																																																													

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact
					HNO <sub>3</sub>	HCl													
CONF -10	10/14/13	1400	P310054-01	1 X 4oz				X	X									✓	✓
CONF -11	↓	1405	P310054-02	↓				X	X									✓	✓
CONF -12	↓	1410	P310054-03	↓				X	X									✓	✓
CONF -13	↓	1515	P310054-04	↓				X	X									✓	✓
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>NFS AB</p> </div>																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/14/13	4:14		10/14/13	4:14
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix			RUSH		
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>					

Sample(s) dropped off after hours to secure drop off area.

**envirotech**  
Analytical Laboratory

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## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16219  
Samples Received: 10/15/2013 11:00:00AM  
Job Number: 07174-0003  
Work Order: P310057  
Project Name/Location: 2B-17

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 10/17/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	<b>Reported:</b> 17-Oct-13 08:57
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Conf-14	P310057-01A	Soil	10/15/13	10/15/13	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:57
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**Conf-14**  
**P310057-01 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	0.79	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B		
Toluene	8.14	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B		
Ethylbenzene	3.21	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B		
p,m-Xylene	27.4	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B		
o-Xylene	10.9	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B		
Total Xylenes	38.3	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B		
Total BTEX	50.4	0.10	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8021B		
Surrogate: Bromochlorobenzene		171 %	80-120		1342012	10/15/13	10/16/13	EPA 8021B	Surr1	
Surrogate: 1,3-Dichlorobenzene		246 %	80-120		1342012	10/15/13	10/16/13	EPA 8021B	Surr1	
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	249	9.98	mg/kg	2	1342012	10/15/13	10/16/13	EPA 8015D		
Diesel Range Organics (C10-C28)	3580	30.0	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D		
GRO and DRO Combined Fractions	3820	9.98	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:57
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**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1342012 - Purge and Trap EPA 5030A**

<b>Blank (1342012-BLK1)</b>			Prepared: 15-Oct-13 Analyzed: 16-Oct-13							
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	45.3		ug/L	50.0		90.6	80-120			
Surrogate: Bromochlorobenzene	46.1		"	50.0		92.2	80-120			

<b>Duplicate (1342012-DUP1)</b>			Source: P310055-01		Prepared: 15-Oct-13 Analyzed: 16-Oct-13					
Benzene	ND	0.05	mg/kg		ND					30
Toluene	ND	0.05	"		ND					30
Ethylbenzene	ND	0.05	"		ND					30
p,m-Xylene	ND	0.05	"		ND					30
o-Xylene	ND	0.05	"		ND					30
Surrogate: 1,3-Dichlorobenzene	45.5		ug/L	50.0		90.9	80-120			
Surrogate: Bromochlorobenzene	44.6		"	50.0		89.2	80-120			

<b>Matrix Spike (1342012-MS1)</b>			Source: P310055-01		Prepared: 15-Oct-13 Analyzed: 16-Oct-13					
Benzene	53.5		ug/L	50.0	0.14	107	39-150			
Toluene	54.3		"	50.0	0.48	108	46-148			
Ethylbenzene	52.7		"	50.0	0.09	105	32-160			
p,m-Xylene	105		"	100	0.25	104	46-148			
o-Xylene	52.6		"	50.0	0.17	105	46-148			
Surrogate: 1,3-Dichlorobenzene	49.7		"	50.0		99.4	80-120			
Surrogate: Bromochlorobenzene	48.5		"	50.0		97.0	80-120			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:57
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1342012 - Purge and Trap EPA 5030A</b>										
<b>Blank (1342012-BLK1)</b> Prepared: 15-Oct-13 Analyzed: 16-Oct-13										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
<b>Duplicate (1342012-DUP1)</b> Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30	
<b>Matrix Spike (1342012-MS1)</b> Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13										
Gasoline Range Organics (C6-C10)	0.71		mg/L	0.450	0.08	140	75-125			SPK1

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:57
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1342014 - DRO Extraction EPA 3550C</b>										
<b>Blank (1342014-BLK1)</b> Prepared: 15-Oct-13 Analyzed: 16-Oct-13										
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
<b>Duplicate (1342014-DUP1)</b> Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13										
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30	
<b>Matrix Spike (1342014-MS1)</b> Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13										
Diesel Range Organics (C10-C28)	241		mg/L	250	15.1	90.3	75-125			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:57
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**Notes and Definitions**

- Surr1 Surrogate recovery was above acceptable limits.
- SPK1 The spike recovery for this QC sample is outside of control limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16219

Client: <b>SWM / EPROD</b>		Project Name / Location: <b>2B-17</b>		ANALYSIS / PARAMETERS											
Email results to: <b>Kyle Summers</b>		Sampler Name: <b>AARON BRANT</b>		TPH (Method 8015) <i>DR/HR</i>	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact
Client Phone No.: <b>903-821-5603</b>		Client No.: <b>071174-0003</b>													

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative		TPH (Method 8015) <i>DR/HR</i>	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl													
CONF-14	10-15-13	10:00	P30057-01	1x4oz			X	X										X	X
<i>NFS AB</i>																			

Relinquished by: (Signature) <i>[Signature]</i>	Date	Time	Received by: (Signature) <i>[Signature]</i>	Date	Time
	10-15-13	11:00		10/15/13	11:20

Relinquished by: (Signature)	Received by: (Signature)
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Sample Matrix  
 Soil  Solid  Sludge  Aqueous  Other  **RUSH**

Sample(s) dropped off after hours to secure drop off area.

*Paykey R132120  
CC15404*





## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16225  
Samples Received: 10/15/2013 11:00:00AM  
Job Number: 07174-0003  
Work Order: P310058  
Project Name/Location: 2B-17

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 10/17/13

Tim Cain, Laboratory Manager

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	<b>Reported:</b> 17-Oct-13 08:59
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Conf-6	P310058-01A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.
Conf-7	P310058-02A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.
Conf-8	P310058-03A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.
Conf-9	P310058-04A	Soil	10/14/13	10/15/13	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:59
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**Conf-6**

**P310058-01 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		101 %	80-120		1342012	10/15/13	10/16/13	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		99.6 %	80-120		1342012	10/15/13	10/16/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:59
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**Conf-7**  
**P310058-02 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		97.4 %			1342012	10/15/13	10/16/13	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		96.0 %			1342012	10/15/13	10/16/13	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D		
GRO and DRO Combined Fractions	ND	5.00	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:59
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**Conf-8**  
**P310058-03 (Solid)**

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8021B	
Toluene	ND	0.05	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		99.2 %		80-120		1342012	10/15/13	10/16/13	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		98.1 %		80-120		1342012	10/15/13	10/16/13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		1	1342012	10/15/13	10/16/13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		1	1342014	10/15/13	10/16/13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg			[CALC]	10/15/13	10/16/13	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:59
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**Conf-9**  
**P310058-04 (Solid)**

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		96.0 %		80-120	1342012	10/15/13	10/16/13	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		95.7 %		80-120	1342012	10/15/13	10/16/13	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1342012	10/15/13	10/16/13	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1342014	10/15/13	10/16/13	EPA 8015D		
GRO and DRO Combined Fractions	ND	5.00	mg/kg		[CALC]	10/15/13	10/16/13	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:59
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**Volatile Organics by EPA 8021 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1342012 - Purge and Trap EPA 5030A**

**Blank (1342012-BLK1)**

Prepared: 15-Oct-13 Analyzed: 16-Oct-13

Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	45.3		ug/L	50.0		90.6	80-120			
Surrogate: Bromochlorobenzene	46.1		"	50.0		92.2	80-120			

**Duplicate (1342012-DUP1)**

Source: P310055-01

Prepared: 15-Oct-13 Analyzed: 16-Oct-13

Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	45.5		ug/L	50.0		90.9	80-120			
Surrogate: Bromochlorobenzene	44.6		"	50.0		89.2	80-120			

**Matrix Spike (1342012-MS1)**

Source: P310055-01

Prepared: 15-Oct-13 Analyzed: 16-Oct-13

Benzene	53.5		ug/L	50.0	0.14	107	39-150			
Toluene	54.3		"	50.0	0.48	108	46-148			
Ethylbenzene	52.7		"	50.0	0.09	105	32-160			
p,m-Xylene	105		"	100	0.25	104	46-148			
o-Xylene	52.6		"	50.0	0.17	105	46-148			
Surrogate: 1,3-Dichlorobenzene	49.7		"	50.0		99.4	80-120			
Surrogate: Bromochlorobenzene	48.5		"	50.0		97.0	80-120			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:59
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1342012 - Purge and Trap EPA 5030A</b>										
<b>Blank (1342012-BLK1)</b>					Prepared: 15-Oct-13 Analyzed: 16-Oct-13					
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
<b>Duplicate (1342012-DUP1)</b>					Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13					
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30	
<b>Matrix Spike (1342012-MS1)</b>					Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13					
Gasoline Range Organics (C6-C10)	0.71		mg/L	0.450	0.08	140	75-125			SPK1

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 17-Oct-13 08:59
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1342014 - DRO Extraction EPA 3550C</b>										
<b>Blank (1342014-BLK1)</b>				Prepared: 15-Oct-13 Analyzed: 16-Oct-13						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
<b>Duplicate (1342014-DUP1)</b>				Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30	
<b>Matrix Spike (1342014-MS1)</b>				Source: P310055-01 Prepared: 15-Oct-13 Analyzed: 16-Oct-13						
Diesel Range Organics (C10-C28)	241		mg/L	250	15.1	90.3	75-125			

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Southwest Geoscience  
2351 W. Northwest Hwy  
Dallas TX, 75220

Project Name: 2B-17  
Project Number: 07174-0003  
Project Manager: Kyle Summers

**Reported:**  
17-Oct-13 08:59

#### Notes and Definitions

SPK I The spike recovery for this QC sample is outside of control limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16225

Page 11 of 11

Client: <b>JWG EPAD D</b>	Project Name / Location: <b>2B-17</b>	ANALYSIS / PARAMETERS											
Email results to: <b>KYLE SUMMERS</b>	Sampler Name: <b>AARON BRYANT</b>	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	PCRA 8 Metals	Cation / Anion	FCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact
Client Phone No.: <b>903-821-5603</b>	Client No.: <b>07174-0003</b>												

Sample No. / Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	PCRA 8 Metals	Cation / Anion	FCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact
					HNO <sub>3</sub>	HCl													
CONF - 6	10-14-13	1305	P310058-01	1x4oz				X	X									X	X
CONF - 7	↓	1305	P310058-02	↓				X	X									X	X
CONF - 8	↓	1310	P310058-03	↓				X	X									X	X
CONF - 9	↓	1315	P310058-04	↓				X	X									X	X
			NFS.																
			AB																

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10-15-13	11:00		10-15-13	11:00
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix	RUSH.				
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>					

Sample(s) dropped off after hours to secure drop off area.

PayKey RB21200  
CC15404

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## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16776  
Samples Received: 3/24/2014 4:16:00PM  
Job Number: 07174-0003  
Work Order: P403083  
Project Name/Location: 2B-17

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 3/26/14

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 3/26/14 11:21 am

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 26-Mar-14 11:24
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CONF-15	P403083-01A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-16	P403083-02A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-17	P403083-03A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-18	P403083-04A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.
CONF-19	P403083-05A	Soil	03/24/14	03/24/14	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 26-Mar-14 11:24
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**CONF-15**  
**P403083-01 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b><u>Volatile Organics by EPA 8021</u></b>									
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		96.6 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		94.6 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B	
<b><u>Nonhalogenated Organics by 8015</u></b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	<b>Reported:</b> 26-Mar-14 11:24
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**CONF-16**

**P403083-02 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		98.8 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		100 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 26-Mar-14 11:24
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**CONF-17**  
**P403083-03 (Solid)**

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		101 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		95.9 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D		

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 26-Mar-14 11:24
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**CONF-18**  
**P403083-04 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		96.5 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		97.3 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D	

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**CONF-19**  
**P403083-05 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		96.6 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		97.7 %		80-120	1413003	03/25/14	03/25/14	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1413003	03/25/14	03/25/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413002	03/25/14	03/25/14	EPA 8015D		

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**Volatile Organics by EPA 8021 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1413003 - Purge and Trap EPA 5030A**

<b>Blank (1413003-BLK1)</b>		Prepared: 24-Mar-14 Analyzed: 25-Mar-14								
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	46.5		ug/L	50.0		93.1	80-120			
Surrogate: Bromochlorobenzene	47.2		"	50.0		94.3	80-120			

<b>Duplicate (1413003-DUP1)</b>		Source: P403073-02		Prepared: 24-Mar-14 Analyzed: 25-Mar-14						
Benzene	ND	0.05	mg/kg		ND					30
Toluene	ND	0.05	"		ND					30
Ethylbenzene	ND	0.05	"		ND					30
p,m-Xylene	ND	0.05	"		ND					30
o-Xylene	ND	0.05	"		ND					30
Surrogate: 1,3-Dichlorobenzene	50.0		ug/L	50.0		100	80-120			
Surrogate: Bromochlorobenzene	50.0		"	50.0		100	80-120			

<b>Matrix Spike (1413003-MS1)</b>		Source: P403073-02		Prepared: 24-Mar-14 Analyzed: 25-Mar-14						
Benzene	50.0		ug/L	50.0	ND	99.9	39-150			
Toluene	49.5		"	50.0	ND	99.0	46-148			
Ethylbenzene	49.3		"	50.0	ND	98.6	32-160			
p,m-Xylene	97.6		"	100	ND	97.6	46-148			
o-Xylene	48.7		"	50.0	ND	97.3	46-148			
Surrogate: 1,3-Dichlorobenzene	52.0		"	50.0		104	80-120			
Surrogate: Bromochlorobenzene	51.9		"	50.0		104	80-120			

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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1413002 - DRO Extraction EPA 3550C**

<b>Blank (1413002-BLK1)</b>		Prepared: 24-Mar-14 Analyzed: 25-Mar-14								
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
<b>Duplicate (1413002-DUP1)</b>		<b>Source: P403073-02</b>		Prepared: 24-Mar-14 Analyzed: 25-Mar-14						
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg		ND				30	
<b>Matrix Spike (1413002-MS1)</b>		<b>Source: P403073-02</b>		Prepared: 24-Mar-14 Analyzed: 25-Mar-14						
Diesel Range Organics (C10-C28)	44.3		mg/L	250	ND	17.7	75-125			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 26-Mar-14 11:24
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1413003 - Purge and Trap EPA 5030A**

<b>Blank (1413003-BLK1)</b>	Prepared: 24-Mar-14 Analyzed: 25-Mar-14									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
<b>Duplicate (1413003-DUP1)</b>	Source: P403073-02 Prepared: 24-Mar-14 Analyzed: 25-Mar-14									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30	
<b>Matrix Spike (1413003-MS1)</b>	Source: P403073-02 Prepared: 24-Mar-14 Analyzed: 25-Mar-14									
Gasoline Range Organics (C6-C10)	0.49		mg/L	0.450	0.01	106	75-125			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	<b>Reported:</b> 26-Mar-14 11:24
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**Notes and Definitions**

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16776

Client: <b>SWG</b>	Project Name / Location: <b>2B-17</b>	ANALYSIS / PARAMETERS													
Email results to: <b>Kyle Summers</b>	Sampler Name: <b>AARON BRYANT</b>	TPH (Method 8015) <b>2/2/12</b>	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
Client Phone No.: <b>903-821-5603</b>	Client No.: <b>07174-0063</b>														

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl																
CONF -15	3/24/14	1200	P403083-01	1 X 4 oz				X	X												✓	
CONF -16		1230	P403083-02					X	X												✓	
CONF -17		1300	P403083-03					X	X												✓	
CONF -18		1400	P403083-04					X	X												✓	
CONF -19		1500	P403083-05					X	X												✓	

Relinquished by: (Signature) <i>Aaron Bryant</i>	Date	Time	Received by: (Signature) <i>Aaron Bryant</i>	Date	Time
	3/24/14	4:16		3/24/14	4:16

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Sample Matrix  
 Soil  Solid  Sludge  Aqueous  Other

Sample(s) dropped off after hours to secure drop off area.

RUSH

3.3  
5.5  
5.8



## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16780  
Samples Received: 3/25/2014 1:27:00PM  
Job Number: 07174-0003  
Work Order: P403090  
Project Name/Location: 2B-17

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Tim Cain, Laboratory Manager

Date: 3/27/14

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 27-Mar-14 11:35
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CONF-20	P403090-01A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.
CONF-21	P403090-02A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.
CONF-22	P403090-03A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.
CONF-23	P403090-04A	Soil	03/25/14	03/25/14	Glass Jar, 4 oz.

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Southwest Geoscience  
2351 W. Northwest Hwy  
Dallas TX, 75220

Project Name: 2B-17  
Project Number: 07174-0003  
Project Manager: Kyle Summers

Reported:  
27-Mar-14 11:35

**CONF-20**  
**P403090-01 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		94.1 %		80-120	1413014	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		91.3 %		80-120	1413014	03/25/14	03/25/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1413013	03/25/14	03/25/14	EPA 8015D	

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**CONF-21**  
**P403090-02 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		96.2 %		80-120	1413014	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		93.3 %		80-120	1413014	03/25/14	03/25/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1413013	03/25/14	03/25/14	EPA 8015D	

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**CONF-22**  
**P403090-03 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		89.3 %			1413014	03/25/14	03/25/14	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		85.1 %			1413014	03/25/14	03/25/14	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413013	03/25/14	03/25/14	EPA 8015D		

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**CONF-23**  
**P403090-04 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		86.7 %		80-120	1413014	03/25/14	03/25/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		86.3 %		80-120	1413014	03/25/14	03/25/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1413014	03/25/14	03/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1413013	03/25/14	03/25/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 27-Mar-14 11:35
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**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1413014 - Purge and Trap EPA 5030A**

<b>Blank (1413014-BLK1)</b>			Prepared & Analyzed: 25-Mar-14							
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	46.3		ug/L	50.0		92.5	80-120			
Surrogate: Bromochlorobenzene	47.3		"	50.0		94.7	80-120			

<b>Duplicate (1413014-DUP1)</b>			Source: P403090-01		Prepared & Analyzed: 25-Mar-14					
Benzene	ND	0.05	mg/kg		ND					30
Toluene	ND	0.05	"		ND					30
Ethylbenzene	ND	0.05	"		ND					30
p,m-Xylene	ND	0.05	"		ND					30
o-Xylene	ND	0.05	"		ND					30
Surrogate: 1,3-Dichlorobenzene	48.6		ug/L	50.0		97.1	80-120			
Surrogate: Bromochlorobenzene	49.3		"	50.0		98.6	80-120			

<b>Matrix Spike (1413014-MS1)</b>			Source: P403090-01		Prepared & Analyzed: 25-Mar-14					
Benzene	46.5		ug/L	50.0	ND	93.0	39-150			
Toluene	46.4		"	50.0	ND	92.7	46-148			
Ethylbenzene	46.0		"	50.0	ND	92.0	32-160			
p,m-Xylene	92.1		"	100	ND	92.1	46-148			
o-Xylene	46.5		"	50.0	ND	92.9	46-148			
Surrogate: 1,3-Dichlorobenzene	47.6		"	50.0		95.2	80-120			
Surrogate: Bromochlorobenzene	47.3		"	50.0		94.5	80-120			

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Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com  
laboratory@envirotech-inc.com



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 27-Mar-14 11:35
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1413013 - DRO Extraction EPA 3550C**

<b>Blank (1413013-BLK1)</b>				Prepared & Analyzed: 25-Mar-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
<b>Duplicate (1413013-DUP1)</b>				Source: P403090-01 Prepared & Analyzed: 25-Mar-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg		ND				30	
<b>Matrix Spike (1413013-MS1)</b>				Source: P403090-01 Prepared & Analyzed: 25-Mar-14						
Diesel Range Organics (C10-C28)	60.4		mg/L	250	ND	24.2	75-125			SPK1

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 27-Mar-14 11:35
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1413014 - Purge and Trap EPA 5030A**

<b>Blank (1413014-BLK1)</b>		Prepared & Analyzed: 25-Mar-14								
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg							
<b>Duplicate (1413014-DUP1)</b>		Source: P403090-01		Prepared & Analyzed: 25-Mar-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
<b>Matrix Spike (1413014-MS1)</b>		Source: P403090-01		Prepared & Analyzed: 25-Mar-14						
Gasoline Range Organics (C6-C10)	0.46		mg/L	0.450	ND	102	75-125			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: 2B-17 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 27-Mar-14 11:35
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**Notes and Definitions**

- SPK I The spike recovery for this QC sample is outside of control limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16780

Client: <b>SWGA</b>	Project Name / Location: <b>213 -17</b>	ANALYSIS / PARAMETERS											
Email results to: <b>Kyle Summers</b>	Sampler Name: <b>AARON BRYANT Kyle Summers</b>	TPH (Method 8015) <b>Proposed</b>	BTEX (Method 8021)	VOC (Method 8260)	PCRA 8 Metals	Cation / Anion	FCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact
Client Phone No: <b>905-821-5603</b>	Client No.: <b>07174-0003</b>												

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	PCRA 8 Metals	Cation / Anion	FCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl													
CONF -20	3/25/14	1030	P403090-01	1 x 40Z			X	X										1	✓
CONF -21	L	1100	P403090-02	L			X	X										1	1
CONF -22	L	1130	P403090-03	L			X	X										1	1
CONF -23	L	1200	P403090-04	L			X	X										1	1
<div style="position: relative; width: 100%; height: 100%;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">NFS</span> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">AB</span> </div>																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/25/14	1:20		3/25/14	13:27

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Sample Matrix  
 Soil  Solid  Sludge  Aqueous  Other

Sample(s) dropped off after hours to secure drop off area.

**RUSH**

8.9

9.2

7.1

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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

Form C-141  
Revised August 8, 2011

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

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: Gerk Gas Com #1	Facility Type: Well Tie/Gathering Line

Surface Owner: Private	Mineral Owner: BLM	API No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	30	29N	9W					San Juan

Latitude 36.700710 Longitude -107.817140

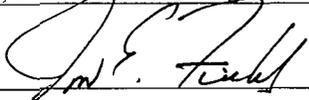
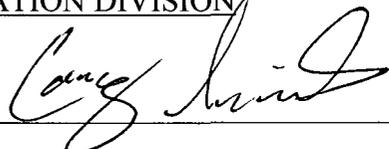
**NATURE OF RELEASE**

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: <b>Unknown amount of natural gas; estimated 3 to 5 bbls of liquids</b>	Volume Recovered: <b>Unknown</b>
Source of Release: External Damage to the Pipeline	Date and Hour of Occurrence: <b>1/14/2014 @ 1:15p.m.</b>	Date and Hour of Discovery: <b>1/14/2014 @ 1:15p.m.</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy notification to NMOCD - Jonathan Kelly	
By Whom? Thomas Long	Date and Hour: <b>1/22/2014 @ 1:00 p.m.</b>	<b>OIL CONS. DIV DIST. 3 MAY 05 2014</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*  
Describe Cause of Problem and Remedial Action Taken.\* A release from the well tie to the Gerk Gas Com #1. The release was due external damage to the pipeline. The well was isolated and LOTO (lock out tag out) was applied. Repairs were complete the week of January 13, 2014. Remediation was complete the week of February 3, 2014.

Describe Area Affected and Cleanup Action Taken.\* An area of estimated twenty-five (25) feet by twenty-five (25) feet was impacted. Third party environmental contractor oversaw remediation activities and collected closure samples. Approximately one hundred-eighty (180) cubic yards of impacted soil was excavated and transported to a NMOCD land farm facility. Potassium permanganate was applied to the excavation prior to backfill. 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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>5/14/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>4-30-2014</u> Phone: (713)381-6684	See Adjusted Site Ranking	

\* Attach Additional Sheets If Necessary

#NCS 141 3434 716

54

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CORRECTIVE ACTION REPORT

OIL CONS. DIV DIST. 3

MAY 05 2014

Property:

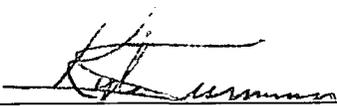
Gerk Com #1 Pipeline Release  
NE 1/4, S30 T29N R9W  
San Juan County, New Mexico

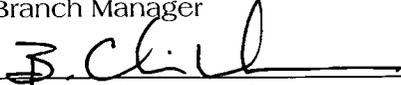
April 4, 2014  
SWG Project No. 0414G002

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

**Southwest**  
GEOSCIENCE  
606 S. Rio Grande Avenue  
Unit A, Downstairs West  
Aztec, NM 87410  
Ph: (505) 334-5200  
Fax: (505) 334-5204

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            Figure 3 – Site Map

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Appendix C: Photographic Documentation

Appendix D: Tables

Appendix E: Laboratory Analytical Reports &  
            Chain of Custody Documentation

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## CORRECTIVE ACTION REPORT

Gerk Com #1 Pipeline Release Site  
NE 1/4, S30 T29N R9W  
San Juan County, New Mexico

SWG Project No. 0414G002

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The Gerk Com #1 Pipeline Release Site is located within the Enterprise Products Operating LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 30 in Township 29 North and Range 9 West in rural San Juan County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on private property owned by B. McCarthy and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

On January 17th, 2014, Enterprise shut in the Gerk Com #1 pipeline and initiated excavation activities at the Site in an attempt to locate a potential leak. The leak was subsequently identified and repaired. An estimated five (5) barrels 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. Very slight soil discoloration was 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.

#### 1.3 Standard of Care

Southwest Geoscience's (SWG'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. SWG makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, SWG 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.

### 1.4 Additional Limitations

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 SWG 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. SWG's findings and recommendations are based solely upon data available to SWG at the time of these services.

### 1.5 Reliance

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 express written authorization of Enterprise and SWG. 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 SWG's Agreement. The limitation of liability defined in the agreement is the aggregate limit of SWG's liability to the client.

## 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 table below:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	CS 10* 0 5/14/14
	<del>50 to 99 feet</del>	<del>10</del>	
	>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
	<del>200 to 1,000 feet</del>	<del>10</del>	
	>1,000 feet	0	
Total Ranking Score			0

\*Based on an anticipated groundwater depth of <100 feet below grade surface (bgs).

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

- The nearest identified water well documented by the Office of the State Engineer website database is located over 2,000 feet west of the Site, with a recorded depth to water of 450 feet. However, due to the proximity of the valley floor a depth to water of approximately 100 feet bgs is possible.
- No surface water body was identified within 1,000 feet of the site. Two unnamed ephemeral washes are located within 600 feet and 800 feet, respectively, from the Site, but appear to only convey water during significant rain events.

### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On January 17th, 2014, Enterprise shut in the Gerk Com #1 pipeline and initiated excavation activities at the Site to locate and repair a potential leak. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Kyle Summers and Aaron Bryant, SWG environmental professionals, provided environmental support.

During the first stage of corrective action, approximately 180 cubic yards of hydrocarbon affected soils were excavated at the Site. Based on initial sampling results, the excavation was extended approximately 10 feet from the initial point of release to the north and south, after which additional confirmation samples were collected.

Analytical results for soils remaining in place indicate remaining hydrocarbon impact on the excavation floor directly below the point of release; however, competent sandstone rendered further excavation impracticable. All other areas of the excavation exhibited COC levels below the OCD Remediation Action Levels (RALs).

Enterprise obtained permission from the OCD to apply potassium permanganate to the floor of the excavation prior to backfilling and closing the Site.

The total depth of the final excavation reached approximately 6 feet bgs near the source of the release, and approximately 5 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 25 feet long by 20 feet wide.

A total of approximately 180 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. The executed C-138 forms are 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.

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

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

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

SWG's soil sampling program included the collection of thirteen (13) discrete confirmation samples (S-1 through S-13) from the side walls and bottom of the excavation for laboratory analysis. The soil sample locations were selected based on visual, olfactory and/or PID evidence of potential impairment and excavation dimensions.

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 label, 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 Envirotech Analytical Laboratory in Farmington, New Mexico for 24-hr rush analysis.

### 4.0 LABORATORY ANALYTICAL METHODS

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.

### 5.0 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.

#### 5.1 Confirmation Soil Samples

SWG compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the thirteen (13) confirmation samples collected from the excavated area to the OCD *Remediation Action Levels* for sites having a total ranking score of "10".

- The laboratory analyses of the confirmation samples collected from soils remaining in place did not exhibit benzene concentrations above the *OCD Remediation Action Level*.
- The laboratory analyses of the confirmation samples S-2, S-4, and S-6 through S-12 collected from soils remaining in place did not exhibit total BTEX concentrations above the *OCD Remediation Action Level*.
- The laboratory analysis of confirmation sample S-13 exhibited a total BTEX concentration remaining in soil of 121 mg/Kg, which is above the *OCD Remediation Action Level* of 50 mg/Kg.
- The laboratory analyses of confirmation samples S-2, S-4, and S-6 through S-13 collected from soils remaining in place did not exhibit TPH GRO/DRO concentrations above the *OCD Remediation Action Level* of 1,000 mg/Kg for a Site ranking of "10".
- The laboratory analyses of confirmation samples S-1, S-3, and S-5 exhibited total BTEX and/or TPH GRO/DRO concentrations above the *OCD Remediation Action Levels*, however, these affected soils were removed for disposal/treatment during the excavation activities.

Based on analytical and screening results, confirmation sample S-13 exhibited total BTEX concentrations above the *OCD Remediation Action Levels*. The other soils which remain in-place at the Site did not exhibit COC concentrations above the *OCD Remediation Action Levels* for a Site ranking of "10". Confirmation sample results are provided in Table 1 in Appendix D.

## 6.0 FINDINGS AND RECOMMENDATIONS

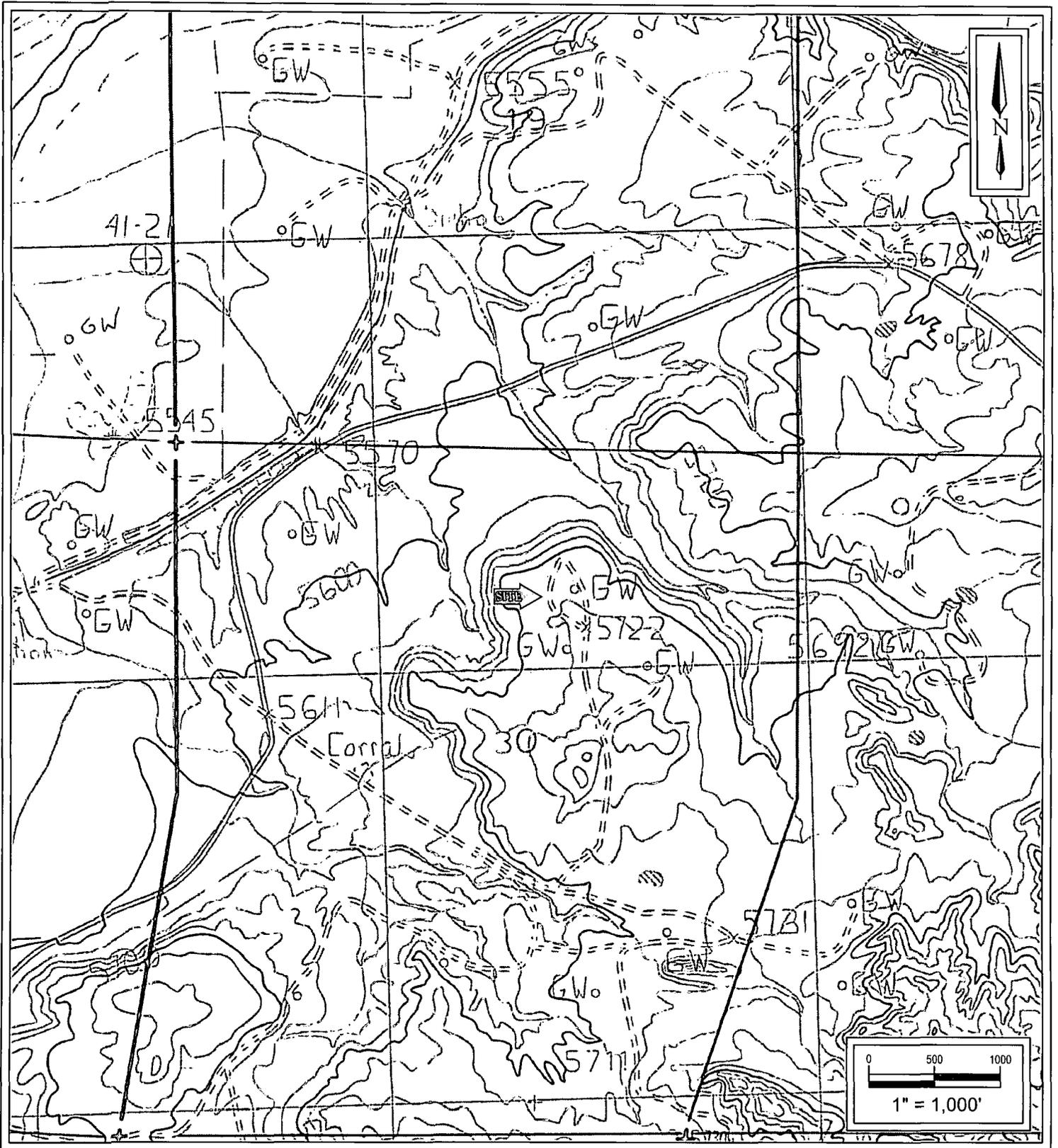
The Gerk Com #1 Pipeline Release Site is located within the Enterprise pipeline ROW in the NE  $\frac{1}{4}$  of Section 30 in Township 29 North and Range 9 West in rural San Juan County, New Mexico. The Site is located on private land belonging to B. McCarthy, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from east to west.

On January 17th, 2014, Enterprise shut in the Gerk Com #1 pipeline and initiated excavation activities at the Site to locate and repair a potential leak. The leak was subsequently identified and repaired. An estimated five (5) barrels 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. No significant liquids were evident at the surface.

- 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 Remediation Action Levels* using the New Mexico EMNRD *OCD's Guidelines for Remediation of Leaks, Spills and Releases* as guidance.
- The total depth of the final excavation reached approximately 6 feet bgs near the source of the release, and approximately 5 feet bgs in the remaining original excavation footprint. The overall average surface expression of the excavation measured approximately 25 feet long by 20 feet wide.

- A total of approximately 180 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, NM for disposal/remediation. Subsequent to the OCD-approved application of potassium permanganate to the floor of the excavation, the excavation was backfilled with clean imported fill and contoured to the approximate surrounding grade.
- The lithology encountered during the completion of corrective action activities consisted primarily of loose silty-sands and sandstone.
- Prior to applying potassium permanganate and backfilling the excavation, discrete and confirmation samples were collected from the floor and sidewalls of the excavation. Based on analytical and screening results, confirmation soil sample S-13 exhibited a total BTEX concentration above the OCD *Remediation Action Level* of 50 mg/Kg. The remaining confirmation samples for soils which remain in-place at the Site did not exhibit COC concentrations above the OCD *Remediation Action Levels* for a Site ranking of "10".

Based on the laboratory analytical results and the OCD-approved treatment of the excavation with potassium permanganate, no additional investigation or corrective action appears warranted at this time.



Gerk Com #1 Pipeline Release  
 NE 1/4 Sec 30 T29N R9W  
 Rural San Juan County, New Mexico  
 36.70065N, -107.81704W

SWG Project No. 0414G002

**Southwest**  
 GEOSCIENCE

Figure 1  
 Topographic Map  
 Blanco Quadrangle  
 1985

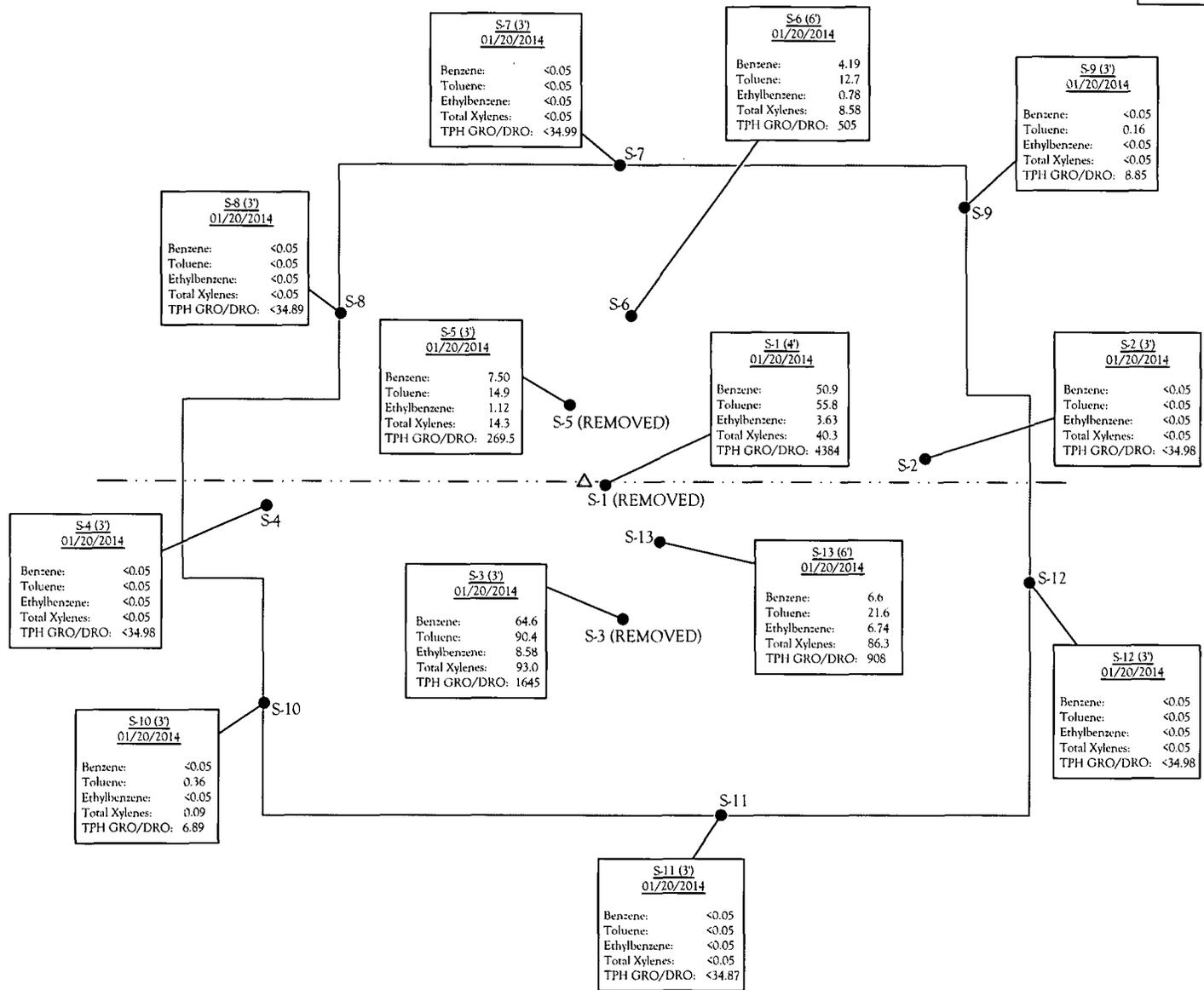


Gerk Com #1 Pipeline Release  
NE 1/4 Sec 30 T29N R9W  
Rural San Juan County, New Mexico  
36.70065N, -107.81704W

SWG Project No. 0414G002

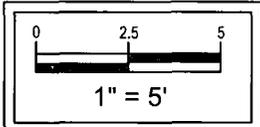
Southwest  
GEOSCIENCE

Figure 2  
Site Vicinity Map  
2013 Aerial Photograph



**LEGEND:**

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



**Gerck Com #1 Pipeline Release**  
 NE 1/4 Sec 30 T29N R9W  
 Rural San Juan County, New Mexico  
 36.70065N, -107.81704W

SWG Project No. 0414G002

**Southwest**  
 GEOSCIENCE

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

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

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

97057-0618

Form C-138  
Revised August 1, 2011

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

### REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

2. **Originating Site:**  
Gerk Com #1 Natural Gas Gathering Line Jan '14

3. **Location of Material (Street Address, City, State or ULSTR):**  
Unit B, Section 30, T29N, R9W; 36.700710, -107.817140

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

5. **Estimated Volume** 20 yd<sup>3</sup> bbls **Known Volume (to be entered by the operator at the end of the haul)** 180 yd<sup>3</sup> bbls

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

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

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

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

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

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**

I, Thomas Long *Thomas Long*, representative for Enterprise Field Services, LLC authorize Envirotech to  
Generator Signature  
complete the required testing/sign the Generator Waste Testing Certification.

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

6. **Transporter: West States Energy Contractors (WSEC)**

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility Permit # NM-01-0011  
Address of Facility: #43 Road 7175, South of Bloomfield 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: 1/22/14  
SIGNATURE: Angela TELEPHONE NO.: (505) 632-0615  
Surface Waste Management Facility Authorized Agent



# Bill of Lading

MANIFEST # 45676

DATE 1-22-14 JOB # 97057-0618

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	ENVIROTECH L.F.	Enterprise Gerke	Clean Fillsoil	-	12	-	MOSS	47	911	Lee Moss
2	"	Com 1	"	-	12	-	MOSS	47	11:20	Lee Moss
3	"	"	"	-	12	-	MOSS	47	13:55	Lee Moss
					36					
RESULTS:		LANDFARM	<i>Gary Robinson</i> <sup>EL</sup> Certification of above receipt & placement			NOTES:				
CHLORIDE TEST	<input checked="" type="checkbox"/>	EMPLOYEE:								
PAINT FILTER TEST	<input checked="" type="checkbox"/>									

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. MOSS Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-22-14

Signatures required prior to distribution of the legal document.

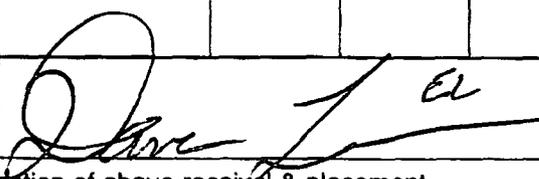


# Bill of Lading

MANIFEST # 45677

DATE 1-22-14 JOB # 97057-1018

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	ENTHRAPISE GERK Co. #1	LFI-5	cont Soil	E-29	12	-	MOSS	47	11:20	Lee Moss
2	"	"	"	E-29	12	-	MOSS	47	13:55	Lee Moss
3	"	"	"	E-29	12	-	MOSS	47	16:00	Lee Moss
					<u>36</u>					
RESULTS:		LANDFARM EMPLOYEE:				NOTES:				
< 292	CHLORIDE TEST	1								
	PAINT FILTER TEST	1				Certification of above receipt & 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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-22-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45682  
 DATE 1-23-14 JOB # 97057-0618

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	ENVIROtech L.F	Enterprise Clean Genk Com #1	Clean Fill	—	12	—	West States	515	0740	Frank Collette
2	"	"	"	—	12	—	"	515	10:00	Frank Collette
3	"	"	"	—	12	—	"	515	11:50	Frank Collette
4	"	"	"	—	12	—	"	515	13:25	Frank Collette
					48					
RESULTS:		LANDFARM EMPLOYEE:	<i>Gary Robinson</i> <sup>EL</sup> Certification of above receipt & placement			NOTES: Driver TR states Genk B-1				
CHLORIDE TEST	/									
PAINT FILTER TEST	/									

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. West States NAME FRANK COLLETTE SIGNATURE Frank Collette  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-23-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45683

DATE 1-23-14 JOB # 97057-0618

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	ENVIROTECH <del>LOUISIANA</del>	ENTERPRISE CLEAN GERK CONTROL FILL		-	12	-	MOSS	47	8:40	Lee Moss
2	"	"	"	-	12	-	MOSS	47	10:30	Lee Moss
3	"	"	"	-	12	-	MOSS	47	12:35	Lee Moss
4	<del>"VOID THIS LINE"</del>						<del>MOSS</del>	<del>47</del>		
					36					
RESULTS:		LANDFARM EMPLOYEE:	<i>Gary Robinson</i> <sup>EL</sup> Certification of above receipt & placement			NOTES: <i>Driver + K# states GerK B1</i>				
	CHLORIDE TEST	<input checked="" type="checkbox"/>								
	PAINT FILTER TEST	<input checked="" type="checkbox"/>								

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. MOSS Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-23-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45684  
 DATE 1-23-14 JOB # 97057-0618

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	EXPRESS CTRK Com #2	LFH-5	cont soil	H-29	12	-	WEST STATES	515	10:20	<i>[Signature]</i>	
2	"	"	"	H-29	12	-	"	515	11:50	<i>[Signature]</i>	
3	"	"	"	H-29	12	-	"	515	13:25	<i>[Signature]</i>	
4	"	"	"	H-29	12	-	"	515	15:00	<i>[Signature]</i>	
					48						
RESULTS:		LANDFARM	<i>[Signature]</i> EL			NOTES:					
<292	CHLORIDE TEST	1									EMPLOYEE:
	PAINT FILTER TEST	1									Certification of above receipt & 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. West states NAME FRANK COLIETTA SIGNATURE *[Signature]*  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-23-14

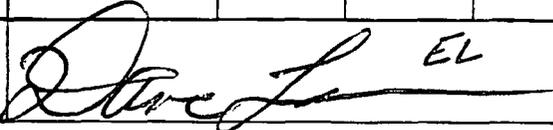
Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45685  
 DATE 1-23-14 JOB # 97057-0618

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
2	ESTERICO GEEK COM #1	LFI-5	CO. # SOIL	H-29	12	-	MOSS	47	10:30	Lee Moss
2	"	"	"	"	H-29	12	MOSS	47	12:35	Lee Moss
3	"	"	"	"	H-29	12	MOSS	47	14:35	Lee Moss
					36					
RESULTS:		LANDFARM EMPLOYEE:				NOTES:				
<292	CHLORIDE TEST	1								
	PAINT FILTER TEST	1	Certification of above receipt & 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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-23-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45701  
 DATE 1-24-14 JOB # 97057-0618

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	ENVIROTECH	ENTERPRISE GENK COM 1	CLEAN FILL	-	12	-	West States	515	7:40	Frank Collette
2	"	"	CLEAN	-	12	-	West States	515	9:35	Frank Collette
3	"	"	CLEAN FILL	-	12	-	West States	515	11:15	Frank Collette
4	"	"	"	-	12	-	West States	515	12:50	Frank Collette
					48					
RESULTS:		LANDFARM EMPLOYEE:	NOTES:							
CHLORIDE TEST	✓	Guy Robinson Certification of above receipt & placement	GenK B-1, Enterprise							
PAINT FILTER TEST	✓									

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. West States NAME FRANK COLLETTE SIGNATURE [Signature]  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-24-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45702  
 DATE 1-24-14 JOB # 97057-0618

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	Etech	Enterprise Geek Com 1	Clean Fill	—	12	—	MOSS	47	8:28	Lee Moss
2	u u	u u	u u	—	12	—	MOSS	47	10:00	Lee Moss
3	u u	u u	u u	—	12	—	MOSS	47	11:55	Lee Moss
4	u u	u u	u u	—	12	—	MOSS	47	13:30	Lee Moss
					48					
RESULTS:		LANDFARM EMPLOYEE:	GARY ROBINSON <sup>EL</sup>			NOTES: Geek B-1				
CHLORIDE TEST	/	Certification of above receipt & placement								
PAINT FILTER TEST	/									

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-24-14

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45704

DATE 1-24-14 JOB # 97057-0618

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 Genk Com 1	LFII-5	CON'T SOIL	G-29	12	-	West States	515	9:35	<i>[Signature]</i>
2	" "	" "	" "	G-29	12	-	West States	515	11:15	<i>[Signature]</i>
3	" "	" "	" "	G-29	12	-	West States	515	12:55	<i>[Signature]</i>
					<u>36</u>					
RESULTS:		LANDFARM EMPLOYEE:		<i>Gary Robinson</i> <sup>EL</sup>			NOTES:			
< 292	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								
					Certification of above receipt & 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. West States NAME FRANK COLLETTA SIGNATURE *[Signature]*

COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE \_\_\_\_\_

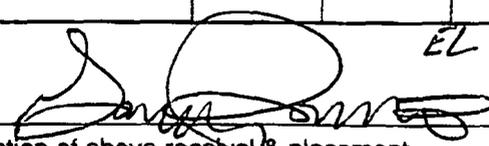
Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 45706  
 DATE 1-24-14 JOB # 97057-0618

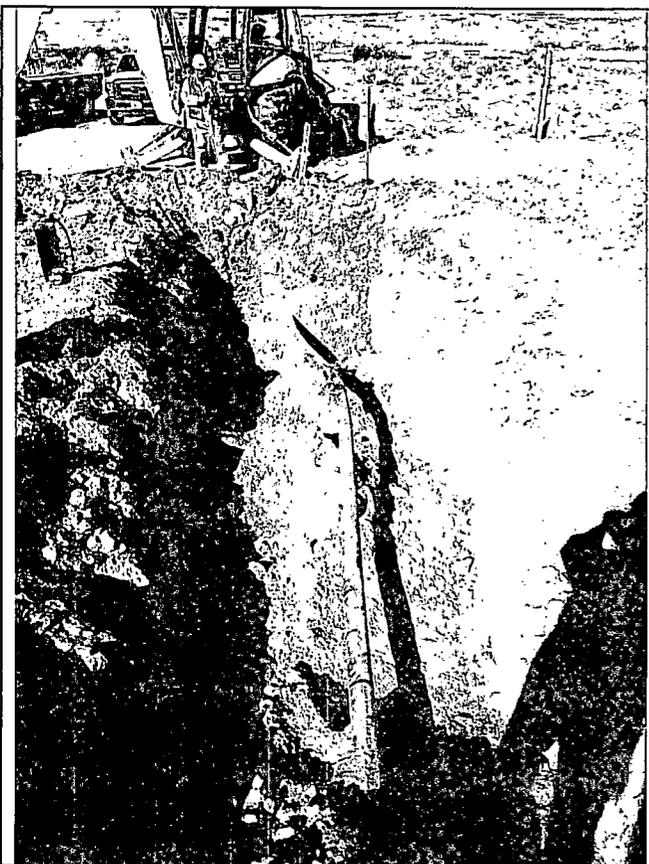
PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise Genk Com-1	LFII-5	Cont. soil	G-29	12	-	MOSS EXC	47	10:00	Lee Moss
2	" "	" "	" "	G-29	12	-	MOSS EXC	47	11:55	Lee Moss
					24					
RESULTS:		LANDFARM EMPLOYEE:		 Certification of above receipt & placement		NOTES:				
< 292	CHLORIDE TEST	1								
	PAINT FILTER TEST	1								

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss  
 COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 1-24-14

Signatures required prior to distribution of the legal document:



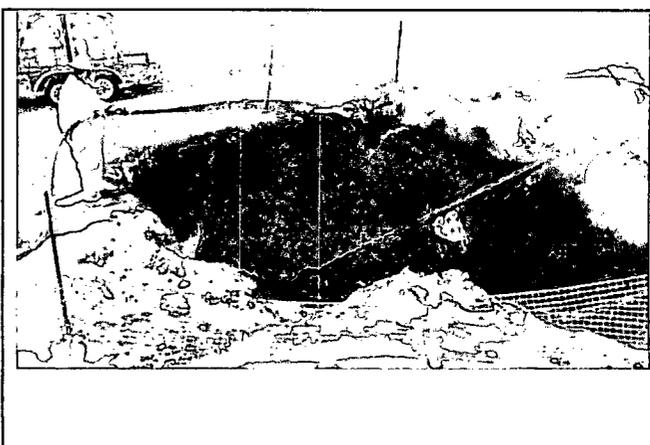
1.) Early stages of excavation facing to the west. Showing where the pipeline had been struck by something in the past (source of leak).



2.) View of excavation facing the east after repairs were completed and new coating applied to the pipeline.



3.) Final extent of excavation, approximately 25 feet long x 20 feet wide, and 5 feet deep.



4.) Envirotech, Inc. applying potassium permanganate to the affected sandstone on the excavation floor.

**TABLE 1**  
Gerk Com #1  
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	100	
Composite Stock Pile Samples - Transported to Landfarm for Disposal/Treatment										
W-1	1/20/2013	C		44.1	57.7	5.93	64.0	172	304	2940
W-2	1/20/2013	C		0.82	5.85	0.65	9.65	17.0	54.9	50.9
Samples for Soils which were Removed by Excavation										
S-1	1/20/2014	G		50.9	55.8	3.63	40.3	151	224	4160
S-3	1/20/2014	G		64.6	90.4	8.58	93.0	257	435	1210
S-5	1/20/2014	G		7.5	14.9	1.12	14.3	37.9	81.5	188
Final Confirmation Samples for Soils Remaining in Place										
S-2	1/20/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.98	<30.0
S-4	1/20/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.98	<30.0
S-6	1/23/2014	G		4.19	12.7	0.78	8.58	26.20	133	372
S-7	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.99	<30.0
S-8	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.99	<29.9
S-9	1/23/2014	G		<0.05	0.16	<0.05	<0.05	0.16	8.85	<29.9
S-10	1/23/2014	G		<0.05	0.36	<0.05	0.09	0.44	6.89	<30.0
S-11	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.97	<29.9
S-12	1/23/2014	G		<0.05	<0.05	<0.05	<0.05	ND	<4.98	<30.0
S-13	1/23/2014	G		6.6	21.6	6.74	86.3	121	401	507

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

NA = Not Analyzed

NE = Not Established



## Analytical Report

### Report Summary

Client: Southwest Geoscience

Chain Of Custody Number: 16531

Samples Received: 1/20/2014 11:00:00AM

Job Number: 07174-0003

Work Order: P401050

Project Name/Location: Gerk Com #1

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 1/22/14

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 1/22/14 8:41 am

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Gerk Com #1 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 22-Jan-14 09:06
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-1	P401050-01A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-2	P401050-02A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-3	P401050-03A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-4	P401050-04A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
W-1	P401050-05A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
W-2	P401050-06A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.
S-5	P401050-07A	Soil	01/20/14	01/20/14	Glass Jar, 4 oz.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Southwest Geoscience 2351 W, Northwest Hwy Dallas TX, 75220	Project Name: Gerk Com #1 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 22-Jan-14 09:06
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S-1

P401050-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	50.9	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	55.8	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	3.63	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	31.9	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	8.43	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	40.3	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	151	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Surrogate: Bromochlorobenzene		190 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		218 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	224	4.99	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	4160	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Gerk Com #1 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 22-Jan-14 09:06
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S-2

P401050-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		110 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		108 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	

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S-3

P401050-03 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	64.6	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B		
Toluene	90.4	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B		
Ethylbenzene	8.58	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B		
p,m-Xylene	76.2	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B		
o-Xylene	16.8	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B		
Total Xylenes	93.0	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B		
Total BTEX	257	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B		
Surrogate: Bromochlorobenzene		231 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02	
Surrogate: 1,3-Dichlorobenzene		178 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02	
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	435	9.99	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8015D		
Diesel Range Organics (C10-C28)	1210	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D		

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S-4

P401050-04 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		108 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		101 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	

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**W-1**

**P401050-05 (Solid)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	44.1	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	57.7	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	5.93	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	51.4	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	12.7	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	64.0	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	172	0.10	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		166 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
<i>Surrogate: Bromochlorobenzene</i>		152 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	304	9.98	mg/kg	2	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	2940	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	

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**W-2**

**P401050-06 (Solid)**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
<b><u>Volatile Organics by EPA 8021</u></b>										
Benzene	0.82	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Toluene	5.85	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Ethylbenzene	0.65	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
p,m-Xylene	7.94	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
o-Xylene	1.70	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Total Xylenes	9.65	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Total BTEX	17.0	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B		
Surrogate: Bromochlorobenzene		146 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02	
Surrogate: 1,3-Dichlorobenzene		147 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02	
<b><u>Nonhalogenated Organics by 8015</u></b>										
Gasoline Range Organics (C6-C10)	54.9	4.99	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D		
Diesel Range Organics (C10-C28)	50.9	29.9	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D		

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P401050-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	7.50	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Toluene	14.9	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Ethylbenzene	1.12	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
p,m-Xylene	11.7	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
o-Xylene	2.64	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total Xylenes	14.3	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
Total BTEX	37.9	0.05	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		129 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
<i>Surrogate: 1,3-Dichlorobenzene</i>		132 %		80-120	1404001	01/21/14	01/21/14	EPA 8021B	S-02
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	81.5	5.00	mg/kg	1	1404001	01/21/14	01/21/14	EPA 8015D	
Diesel Range Organics (C10-C28)	188	30.0	mg/kg	1	1404002	01/21/14	01/21/14	EPA 8015D	

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Gerk Com #1 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 22-Jan-14 09:06
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**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1404001 - Purge and Trap EPA 5030A**

<b>Blank (1404001-BLK1)</b>		Prepared: 20-Jan-14 Analyzed: 21-Jan-14								
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	45.7		ug/L	50.0		91.5	80-120			
Surrogate: Bromochlorobenzene	46.7		"	50.0		93.5	80-120			

<b>Duplicate (1404001-DUP1)</b>		Source: P401044-01		Prepared & Analyzed: 20-Jan-14						
Benzene	ND	0.05	mg/kg		ND					30
Toluene	ND	0.05	"		ND					30
Ethylbenzene	ND	0.05	"		ND					30
p,m-Xylene	ND	0.05	"		ND					30
o-Xylene	ND	0.05	"		ND					30
Surrogate: 1,3-Dichlorobenzene	46.6		ug/L	50.0		93.3	80-120			
Surrogate: Bromochlorobenzene	47.8		"	50.0		95.6	80-120			

<b>Matrix Spike (1404001-MS1)</b>		Source: P401044-01		Prepared & Analyzed: 20-Jan-14						
Benzene	50.3		ug/L	50.0	ND	101	39-150			
Toluene	50.1		"	50.0	ND	100	46-148			
Ethylbenzene	50.3		"	50.0	ND	101	32-160			
p,m-Xylene	100		"	100	ND	100	46-148			
o-Xylene	49.7		"	50.0	ND	99.3	46-148			
Surrogate: 1,3-Dichlorobenzene	50.8		"	50.0		102	80-120			
Surrogate: Bromochlorobenzene	50.1		"	50.0		100	80-120			

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Gerk Com #1 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 22-Jan-14 09:06
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1404001 - Purge and Trap EPA 5030A**

<b>Blank (1404001-BLK1)</b>		Prepared: 20-Jan-14 Analyzed: 21-Jan-14								
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
<b>Duplicate (1404001-DUP1)</b>		<b>Source: P401044-01</b>		Prepared & Analyzed: 20-Jan-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg		ND				30	
<b>Matrix Spike (1404001-MS1)</b>		<b>Source: P401044-01</b>		Prepared & Analyzed: 20-Jan-14						
Gasoline Range Organics (C6-C10)	0.49		mg/L	0.450	0.02	106	75-125			

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Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com  
laboratory@envirotech-inc.com



Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: Gerk Com #1 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 22-Jan-14 09:06
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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1404002 - DRO Extraction EPA 3550C**

<b>Blank (1404002-BLK1)</b>		Prepared & Analyzed: 20-Jan-14								
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
<b>Duplicate (1404002-DUP1)</b>		Source: P401044-01		Prepared & Analyzed: 20-Jan-14						
Diesel Range Organics (C10-C28)	126	29.9	mg/kg		202			46.2	30	D1
<b>Matrix Spike (1404002-MS1)</b>		Source: P401044-01		Prepared & Analyzed: 20-Jan-14						
Diesel Range Organics (C10-C28)	370	31.6	mg/kg	263	202	63.7	75-125			SPK1

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Southwest Geoscience  
2351 W. Northwest Hwy  
Dallas TX, 75220

Project Name: Gerk Com #1  
Project Number: 07174-0003  
Project Manager: Kyle Summers

**Reported:**  
22-Jan-14 09:06

### Notes and Definitions

SPK1 The spike recovery for this QC sample is outside of control limits.

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

D1 Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16531

Client: <b>SWG</b>		Project Name / Location: <b>(7ERK COM #1)</b>		ANALYSIS / PARAMETERS									
Email results to: <b>KYLE SUMMERS</b>		Sampler Name: <b>AARON BRYANT</b>											
Client Phone No.: <b>903-821-5603</b>		Client No.: <b>07174-0003</b>											

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative		TPH (Method 8015) <i>(Kopke)</i>	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl															
S-1	1/20/14	930		1x40z			X	X												✓	✓
S-2		935					X	X													
S-3		940					X	X													
S-4		945					X	X													
S-5	<del>X</del> AB	950					X	X													
W-1		955					X	X													
W-2		1000					X	X													
			NFS	AB																	

Relinquished by: (Signature) <i>[Signature]</i>	Date: 1/24/14	Time: 11:00	Received by: (Signature) <i>[Signature]</i>	Date: 1/20/14	Time: 11:00
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix	PO# 04149002 <sup>AB</sup>				
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>					

Sample(s) dropped off after hours to secure drop off area.

**RUSH**



S-3 7.5  
S-2 8.5  
W-2 7.2



## Analytical Report

### Report Summary

Client: Southwest Geoscience  
Chain Of Custody Number: 16565  
Samples Received: 1/23/2014 2:52:00PM  
Job Number: 07174-0003  
Work Order: P401066  
Project Name/Location: The Gerk Com #1

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 1/27/14

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Southwest Geoscience  
2351 W. Northwest Hwy  
Dallas TX, 75220

Project Name: The Gerk Com #1  
Project Number: 07174-0003  
Project Manager: Kyle Summers

Reported:  
27-Jan-14 07:48

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S-6	P401066-01A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-7	P401066-02A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-8	P401066-03A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-9	P401066-04A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-10	P401066-05A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-11	P401066-06A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-12	P401066-07A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
S-13	P401066-08A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.

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Southwest Geoscience 2351 W. Northwest Hwy Dallas TX, 75220	Project Name: The Gerk Com #1 Project Number: 07174-0003 Project Manager: Kyle Summers	Reported: 27-Jan-14 07:48
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S-6

P401066-01 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatile Organics by EPA 8021</b>									
Benzene	4.19	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Toluene	12.7	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Ethylbenzene	0.78	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
p,m-Xylene	7.47	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
o-Xylene	1.11	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total Xylenes	8.58	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total BTEX	26.2	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		149 %		80-120	1404027	01/23/14	01/24/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		408 %		80-120	1404027	01/23/14	01/24/14	EPA 8021B	S-02
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	133	5.00	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	372	30.0	mg/kg	1	1404026	01/23/14	01/24/14	EPA 8015D	

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**P401066-02 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		104 %		80-120	1404027	01/23/14	01/24/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		99.9 %		80-120	1404027	01/23/14	01/24/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404026	01/23/14	01/24/14	EPA 8015D	

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P401066-03 (Solid)

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		101 %		80-120	1404027	01/23/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		105 %		80-120	1404027	01/23/14	01/24/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1404027	01/23/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1404026	01/23/14	01/24/14	EPA 8015D	

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**P401066-04 (Solid)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	0.16	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	0.16	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		102 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		105 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	8.85	5.00	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D	

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**S-10**

**P401066-05 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	0.36	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	0.09	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	0.09	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	0.44	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		105 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	
<i>Surrogate: 1,3-Dichlorobenzene</i>		103 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	6.89	5.00	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D	

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P401066-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		96.0 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		103 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.97	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D	

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S-12

P401066-07 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Toluene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Ethylbenzene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
p,m-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
o-Xylene	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Total Xylenes	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
Total BTEX	ND	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B		
<i>Surrogate: Bromochlorobenzene</i>		99.3 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B		
<i>Surrogate: 1,3-Dichlorobenzene</i>		96.4 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B		
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D		
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D		

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**S-13**  
**P401066-08 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	6.60	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Toluene	21.6	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Ethylbenzene	6.74	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
p,m-Xylene	63.4	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
o-Xylene	22.9	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total Xylenes	86.3	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Total BTEX	121	0.05	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8021B	
Surrogate: Bromochlorobenzene		148 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	S-02
Surrogate: 1,3-Dichlorobenzene		198 %		80-120	1404027	01/24/14	01/24/14	EPA 8021B	S-02
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	401	5.00	mg/kg	1	1404027	01/24/14	01/24/14	EPA 8015D	
Diesel Range Organics (C10-C28)	507	29.9	mg/kg	1	1404026	01/24/14	01/24/14	EPA 8015D	

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laboratory@envirotech-inc.com



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**Volatile Organics by EPA 8021 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1404027 - Purge and Trap EPA 5030A**

<b>Blank (1404027-BLK1)</b>			Prepared: 23-Jan-14 Analyzed: 24-Jan-14							
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	52.6		ug/L	50.0		105	80-120			
Surrogate: Bromochlorobenzene	54.5		"	50.0		109	80-120			

<b>Duplicate (1404027-DUP1)</b>			Source: P401066-01		Prepared: 23-Jan-14 Analyzed: 24-Jan-14					
Benzene	4.84	0.05	mg/kg		4.19			14.5	30	
Toluene	12.4	0.05	"		12.7			2.09	30	
Ethylbenzene	0.81	0.05	"		0.78			3.59	30	
p,m-Xylene	7.34	0.05	"		7.47			1.79	30	
o-Xylene	1.11	0.05	"		1.11			0.436	30	
Surrogate: 1,3-Dichlorobenzene	202		ug/L	50.0		404	80-120			S-02
Surrogate: Bromochlorobenzene	68.3		"	50.0		137	80-120			S-02

<b>Matrix Spike (1404027-MS1)</b>			Source: P401066-01		Prepared: 23-Jan-14 Analyzed: 24-Jan-14					
Benzene	7.68	0.05	mg/kg	2.50	4.19	140	39-150			
Toluene	16.3	0.05	"	2.50	12.7	144	46-148			
Ethylbenzene	3.49	0.05	"	2.50	0.78	108	32-160			
p,m-Xylene	13.0	0.05	"	5.00	7.47	111	46-148			
o-Xylene	3.91	0.05	"	2.50	1.11	112	46-148			
Surrogate: 1,3-Dichlorobenzene	221		ug/L	50.0		443	80-120			S-02
Surrogate: Bromochlorobenzene	72.1		"	50.0		144	80-120			S-02

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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1404026 - DRO Extraction EPA 3550C**

<b>Blank (1404026-BLK1)</b>		Prepared: 23-Jan-14 Analyzed: 24-Jan-14								
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
<b>Duplicate (1404026-DUP1)</b>		Source: P401066-01 Prepared: 23-Jan-14 Analyzed: 24-Jan-14								
Diesel Range Organics (C10-C28)	340	29.9	mg/kg		372			9.05	30	
<b>Matrix Spike (1404026-MS1)</b>		Source: P401066-01 Prepared: 23-Jan-14 Analyzed: 24-Jan-14								
Diesel Range Organics (C10-C28)	605	31.6	mg/kg	263	372	88.5	75-125			

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**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1404027 - Purge and Trap EPA 5030A**

<b>Blank (1404027-BLK1)</b>		Prepared: 23-Jan-14 Analyzed: 24-Jan-14								
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
<b>Duplicate (1404027-DUP1)</b>		<b>Source: P401066-01</b>		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Gasoline Range Organics (C6-C10)	133	4.99	mg/kg		133			0.0246	30	
<b>Matrix Spike (1404027-MS1)</b>		<b>Source: P401066-01</b>		Prepared: 23-Jan-14 Analyzed: 24-Jan-14						
Gasoline Range Organics (C6-C10)	159	5.00	mg/kg	22.5	133	118	75-125			

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[laboratory@envirotech-inc.com](mailto:laboratory@envirotech-inc.com)



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**Notes and Definitions**

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

16565

Client: <b>SWIN</b>		Project Name / Location: <b>THE MERKCOM #1</b>			ANALYSIS / PARAMETERS																																											
Email results to: <b>KYLE SUMMERS</b>		Sampler Name: <b>AARON BRYANT</b>			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">TPH (Method 8015)</td> <td style="width: 5%;">BTEX (Method 8021)</td> <td style="width: 5%;">VOC (Method 8260)</td> <td style="width: 5%;">RCRA 8 Metals</td> <td style="width: 5%;">Cation / Anion</td> <td style="width: 5%;">RCI</td> <td style="width: 5%;">TCLP with H/P</td> <td style="width: 5%;">CO Table 910-1</td> <td style="width: 5%;">TPH (418.1)</td> <td style="width: 5%;">CHLORIDE</td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;">Sample Cool</td> <td style="width: 5%;">Sample Intact</td> </tr> <tr> <td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td><td>X</td> </tr> </table>												TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE					Sample Cool	Sample Intact	X	X													X	X
TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion													RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE					Sample Cool	Sample Intact																					
X	X													X	X																																	
Client Phone No.: <b>903-821-5603</b>		Client No.: <b>07174-0003</b>																																														
Sample No. / Identification	Sample Date	Sample Time	Lab No.	No. / Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact																											
					HNO <sub>3</sub>	HCl																																										
S-6	1-23-14	1200	P4010106-01					X	X													X	X																									
S-7		1205	P4010106-02					X	X																																							
S-8		1210	P4010106-03					X	X																																							
S-9		1215	P4010106-04					X	X																																							
S-10		1220	P4010106-05					X	X																																							
S-11		1225	P4010106-06					X	X																																							
S-12		1230	P4010106-07					X	X																																							
S-13		1235	P4010106-08					X	X																																							
				NFS																																												
			A13																																													
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time																																					
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Relinquished by: (Signature)				Received by: (Signature)																																												
Sample Matrix				PO # 04149002																																												
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>																																																
<input type="checkbox"/> Sample(s) dropped off after hours to secure drop off area.																																																
<b>RUSH</b>								13.0 °C    11.1 °C 11.3 °C																																								

District I  
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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>Trunk 3D Pipeline</b>	Facility Type: Natural Gas Gathering Line
Surface Owner: <b>NAPI</b>	Mineral Owner: <b>BLM</b>
API No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>B</b>	<b>7</b>	<b>27N</b>	<b>11W</b>					<b>San Juan</b>

Latitude 36.594801 Longitude -108.044628

**NATURE OF RELEASE**

Type of Release: natural gas liquids	Volume of Release: <b>Unknown</b>	Volume Recovered: <b>Unknown</b>
Source of Release: Accidental discharge	Date and Hour of Occurrence: <b>3/25/2014 @ 6:15 p.m.</b>	Date and Hour of Discovery: <b>3/25/2014 @ 6:15 p.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	Jonathan Kelly – NMOCD, NAPI Safety – Eric Trevizo	
By Whom? Thomas Long	3/25/14 @ 7:00 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

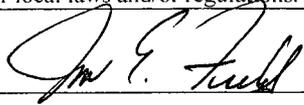
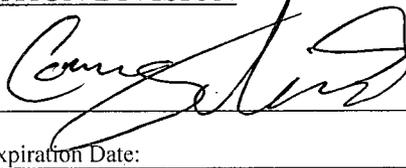
If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* During maintenance activities of blowing down the Lateral 3D Loop Pipeline, a release occurred on the Trunk 3D. Natural gas liquids (condensate, water and oil) were released from the valve on the Trunk 3D. An area of approximately 20 feet wide by 75 feet long was affected including a paved county road. The remediation activities were completed on March 28, 2014.

**APR 11 2014**

Describe Area Affected and Cleanup Action Taken.\* The remediation activities were completed on March 28, 2014. County Road 7010 was steamed cleaned with a simple green and water mixture. The impacted soil was removed and transported to an NMOCD approved land farm facility. A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.

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>5/15/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	
Date: <u>4-7-2014</u> Phone: (713)381-6684	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

**#NCS 1413531395**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
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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: Howell M#1A Well Site	Facility Type: Well Site Meter Run/Meter Tube
Surface Owner: BLM	Mineral Owner: BLM
API No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	31	30N	8W					San Juan

Latitude 36.762424 Longitude -107.718116

**NATURE OF RELEASE**

Type of Release: Natural gas and condensate liquids	Volume of Release: 772 MCF	Volume Recovered: Unknown
Source of Release: Broken Methanol Injector	Date and Hour of Occurrence: 3/26/14 @ 1:15 p.m.	Date and Hour of Discovery: 3/26/14 @ 1:15 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jonathan Kelly - NMOCD	
By Whom? Thomas Long	Date and Hour 3/26/14 4:30 p.m. by phone; 3/27/14 by email	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

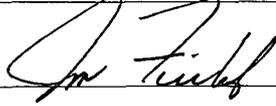
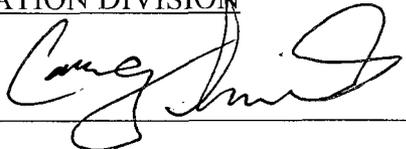
Describe Cause of Problem and Remedial Action Taken.\* A well producer discovered gas leaking from a methanol injector. An Enterprise technician was dispatched to isolate the injector and make repairs.

OIL CONSERV. DIV DIST. 3

APR 11 2014

Describe Area Affected and Cleanup Action Taken.\* An area of approximately two feet by two feet was affected below the methanol tank. The affected soil will be removed by hand tools and transported to the nearest Enterprise Compressor station to be stored in a petroleum contaminated soil box for later disposal at a NMOCD approved land farm facility.

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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 5/15/14	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4-7-2014 Phone: (713)381-6684		

\* Attach Additional Sheets If Necessary

# NCS 141 3529 445

District I  
1625 N. French Dr., Hobbs, NM 88240  
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State of New Mexico  
Energy Minerals and Natural Resources

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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 3D Loop Pipeline	Facility Type: Natural Gas Gathering Line

Surface Owner: NAPI	Mineral Owner: BLM	API No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	2	27N	12W					San Juan

Latitude 36.61015 Longitude -107.089064

**NATURE OF RELEASE**

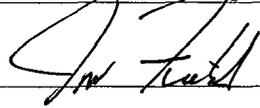
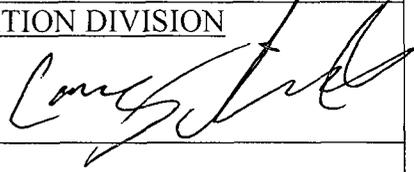
Type of Release: natural gas and natural gas liquids	Volume of Release: <b>Unknown</b>	Volume Recovered: <b>Unknown</b>
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: 3/18/2014 @ 3:40 p.m.	Date and Hour of Discovery: 3/18/2014 @ 3:40p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	<b>RCVD APR 7 '14</b>	
By Whom?	<b>Oil Cons. Div.</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>DIST. 3</b>	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* A release was discovered on the Lateral 3D Loop pipeline by third party. There were no surface impacts. The line was blown down, taken out of service and LOTO (lock out tag out) was applied. The repairs/remediation activities began on March 25, 2014.

Describe Area Affected and Cleanup Action Taken.\* The repairs/remediation activities began on March 25, 2014. Approximately 100 cubic yards of hydrocarbon impacted soil has been removed and transported to an NMOCD approved land farm facility. A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.

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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>5/9/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>4-2-2014</u> Phone: (713)381-6684		

\* Attach Additional Sheets If Necessary

#NCS 141 2927528

①

District I:  
1625 N. French Dr., Hobbs, NM 88240  
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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 <b>Enterprise Field Services LLC</b>	Contact <b>Thomas Long</b>
Address <b>614 Reilly Ave, Farmington, NM 87401</b>	Telephone No. <b>(505) 599-2124</b>
Facility Name <b>Trunk K Pipeline</b>	Facility Type <b>Pipeline</b>

Surface Owner <b>BLM</b>	Mineral Owner <b>BLM</b>	API No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>B</b>	<b>26</b>	<b>27N</b>	<b>8W</b>					<b>San Juan</b>

Latitude: 36.54831 Longitude: -107.64863

**NATURE OF RELEASE**

Type of Release <b>Natural Gas condensate and produced water</b>	Volume of Release <b>10bbbls &amp; 50+MCF</b>	Volume Recovered: <b>Unknown</b>
Source of Release <b>Internal corrosion of the 16" spiral weld pipeline</b>	Date and Hour of Occurrence <b>9/4/2013 @ 6:00 p.m.</b>	Date and Hour of Discovery <b>9/4/2013 @ 6:00 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? <b>Brandon Powell, NMOCD, notified by email</b>	
By Whom? <b>Runell Seale</b>	Date and Hour <b>9/5/13 16:46</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

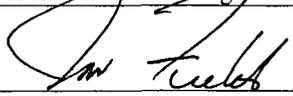
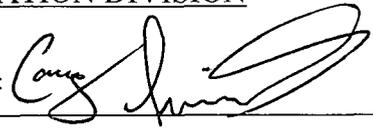
If a Watercourse was Impacted, Describe Fully.\*

**RCVD APR 7 '14  
OIL CONS. DIV.  
DIST. 3**

Describe Cause of Problem and Remedial Action Taken.\* After the pipeline leak was detected, the line was blown down and Lock Out Tag Out (LOTO) was applied. The cause of the release was internal corrosion of the 16" natural gas pipeline. Repair and Remediation activities were completed on September 11, 2013.

Describe Area Affected and Cleanup Action Taken.\* Repair and Remediation activities were completed on September 11, 2013. An area of approximately 42 feet long by 17 feet wide by 14 feet deep was affected. Approximately 150 cubic yard of hydrocarbon contaminated soil was excavated and transported to an approved NMOCD 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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>4/21/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>4-2-2014</u> Phone: (713)381-6684		

\* Attach Additional Sheets If Necessary

Incident # NES 141 114 2604

320



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

March 13, 2014

Thomas Long  
Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, New Mexico 87401

Via electronic mail with delivery confirmation receipt to:  
[tjlong@eprod.com](mailto:tjlong@eprod.com)

**RE: Release Assessment Report  
Trunk K Pipeline Release  
NW¼ NE¼, Section 26, T27N, R8W  
San Juan County, New Mexico**

RCVD APR 7 '14  
OIL CONS. DIV.  
DIST. 3

Dear Mr. Long:

On September 9 through 11, 2013, Animas Environmental Services, LLC (AES) completed a release assessment associated with a pipeline release of pipeline liquids and natural gas of unknown volume at the Enterprise Field Services, LLC (Enterprise) Trunk K 16-inch diameter spiral-weld pipeline. The release was discovered on September 4, 2013, and resulted from pipeline corrosion.

---

## 1.0 Site Information

### 1.1 Location

Location – NW¼ NE¼, Section 26, T27N, R8W, San Juan County, New Mexico

Latitude/Longitude – N36.54831 and W107.64863, respectively

Surface Owner – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, September 2013

### 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** An NMOCD C-144 form dated March 2006 for the Marron #12, located approximately 2,600 feet north and at a similar elevation,

reported the depth to groundwater at less than 50 feet below ground surface (bgs). (20 points)

- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The wash in Largo Canyon is located approximately 420 feet east-northeast of the location. (10 points)

The ranking score of 30 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

### *1.3 Assessment and Mitigation*

On September 9 to 11, 2013, Enterprise contractors completed an excavation along the pipeline and determined the release was the result of a pipeline leak caused by corrosion. The pipeline was repaired, and AES collected soil samples from the walls and base of the excavation. Soil samples were also collected from a soil boring advanced in the base of the excavation near the release location to aid in determination of vertical extent of petroleum hydrocarbon impacted soil. Based on laboratory analytical results, the excavation was extended an additional 2 feet to the northeast, and approximately 3.5 feet of soil was removed from the base of the excavation on September 11, 2013. Prior to backfilling, AES collected two samples from the northeast wall and base of the excavation.

The final excavation measured approximately 42.5 feet by 17 feet by 14 feet deep. The excavation was backfilled with clean, imported material, and the impacted soil was transported to the Envirotech Landfarm for proper disposal. Soil sample locations and final excavation extents are included on Figure 3. The Envirotech Bills of Lading and a photograph log are included in the Appendix.

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## **2.0 Soil Sampling**

Five soil samples (CS-1 through CS-5) were collected from the walls and base of the initial excavation. Additionally, one soil boring (SB-1) was advanced into the base of the initial excavation near the release location. Following additional excavation, two soil samples (CS-6 and CS-7) were collected from the northeast wall and base of the final excavation. Each sample was field screened for volatile organic compounds (VOCs) and submitted for laboratory analysis. Soil samples CS-6 and CS-7 were also field screened for TPH.

## 2.1 Field Screening

### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

### 2.1.2 Total Petroleum Hydrocarbons

Selected soil samples were also analyzed in the field for TPH per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

## 2.2 Laboratory Analyses

Samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Envirotech Analytical Laboratory (Envirotech), in Farmington, New Mexico. Soil samples were laboratory analyzed for:

- BTEX per USEPA Method 8021; and
- TPH (GRO/DRO) per USEPA Method 8015.

## 2.3 Field Screening and Laboratory Analytical Results

Soil field screening results showed that VOC concentrations via OVM ranged from 0.0 ppm in CS-3 up to 1,847 ppm in CS-2. Field TPH concentrations ranged from 78.9 mg/kg in CS-7 up to 156 mg/kg in CS-6. Field screening results are summarized in Table 1 and presented on Figure 3. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOC and TPH Results  
Trunk K Pipeline Release Assessment, September 2013

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
<b>NMOCDC Action Level*</b>			<b>100</b>	<b>100</b>
SB-1	9/10/13	12	<b>845</b>	NA
	9/10/13	18	<b>587</b>	NA
CS-1	9/10/13	0 to 10.5	<b>1,365</b>	NA

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>Field TPH (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>100</b>	<b>100</b>
CS-2	9/10/13	0 to 10.5	<b>1,847</b>	NA
CS-3	9/10/13	0 to 10.5	0.0	NA
CS-4	9/10/13	0 to 10.5	13.4	NA
CS-5	9/10/13	10.5	15.7	NA
CS-6	9/11/13	14.5	<b>293</b>	<b>156</b>
CS-7	9/11/13	0 to 14.5	42.5	78.9

\*Action level determined by the NMOCD ranking score per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

Laboratory analytical results showed that benzene concentrations ranged from below laboratory detection limits for all the samples, except CS-1 (0.18 mg/kg) and CS-5 (1.25 mg/kg). Total BTEX concentrations ranged from below laboratory detection limits in five samples up to 29.3 mg/kg in CS-5. TPH concentrations ranged from below laboratory detection limits in CS-3, CS-4, and CS-7, up to 1,770 mg/kg in CS-5. Laboratory analytical results are included in Table 2 and on Figure 3. The laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
Trunk K Pipeline Release Assessment, September 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>TPH – GRO (mg/kg)</i>	<i>TPH – DRO (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>10</b>	<b>50</b>	<b>100</b>	
SB-1	9/10/13	12	<0.05	1.59	<b>42.2</b>	<b>237</b>
	9/10/13	18	<0.05	1.18	15.1	80.4
CS-1	9/10/13	0 to 10.5	0.18	10.2	<b>144</b>	<b>1,160</b>
CS-2	9/10/13	0 to 10.5	<0.05	<0.20	<5.00	10.7
CS-3	9/10/13	0 to 10.5	<0.05	<0.20	<5.00	<5.00
CS-4	9/10/13	0 to 10.5	<0.05	<0.20	<4.99	<4.99
CS-5	9/10/13	10.5	1.25	29.3	<b>514</b>	<b>1,260</b>
CS-6	9/11/13	14.5	<0.05	<0.20	<5.00	33.3
CS-7	9/11/13	0 to 14.5	<0.50	<2.00	<4.98	<4.98

\*Action level determined by the NMOCD ranking score per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

### 3.0 Conclusions and Recommendations

Action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 30. Field screening showed VOC concentrations above the NMOCD action level of 100 ppm in SB-1, CS-1, CS-2, and CS-6, with the highest concentration in CS-2 with 1,847 ppm. Field TPH concentrations were below the NMOCD action level of 100 ppm in CS-7 with 78.9 mg/kg but exceeded the action level in CS-6 with 156 mg/kg.

Laboratory analytical results for the samples collected from the initial excavation (CS-1 through CS-5) reported benzene and total BTEX below the applicable NMOCD action levels. TPH concentrations were below the NMOCD action level in CS-2 through CS-4 but exceeded the NMOCD action level in CS-1 (northeast wall) and CS-5 (excavation base at 10.5 feet bgs). Based on field screening results, soil boring SB-1 was advanced into the base of the initial excavation. Laboratory analytical results reported benzene and total BTEX concentrations below applicable NMOCD action levels for the 12 and 18 foot bgs samples from SB-1. TPH concentrations for SB-1 exceeded the NMOCD action level at 12 feet (279 mg/kg) but were below the action level at 18 feet (95.5 mg/kg). Following additional excavation, laboratory analytical results reported benzene, total BTEX and TPH concentrations below applicable NMOCD action levels in CS-6 (base at 14 feet bgs) and CS-7 (northeast wall).

Based on field screening and laboratory analytical results of the final walls of the excavation, benzene, total BTEX, and TPH concentrations are below the applicable NMOCD action levels. No further work is recommended for the Trunk K Pipeline Release.

If you have any questions about this report or site conditions, please do not hesitate to contact Heather Woods at (505) 564-2281.

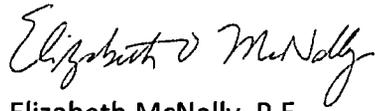
Sincerely,



David J. Reese  
Environmental Scientist



Heather M. Woods, P.G.  
Project Manager



Elizabeth McNally, P.E.

**Attachments:**

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, September 2013

Figure 3. Final Excavation Sample Locations and Results, September 2013

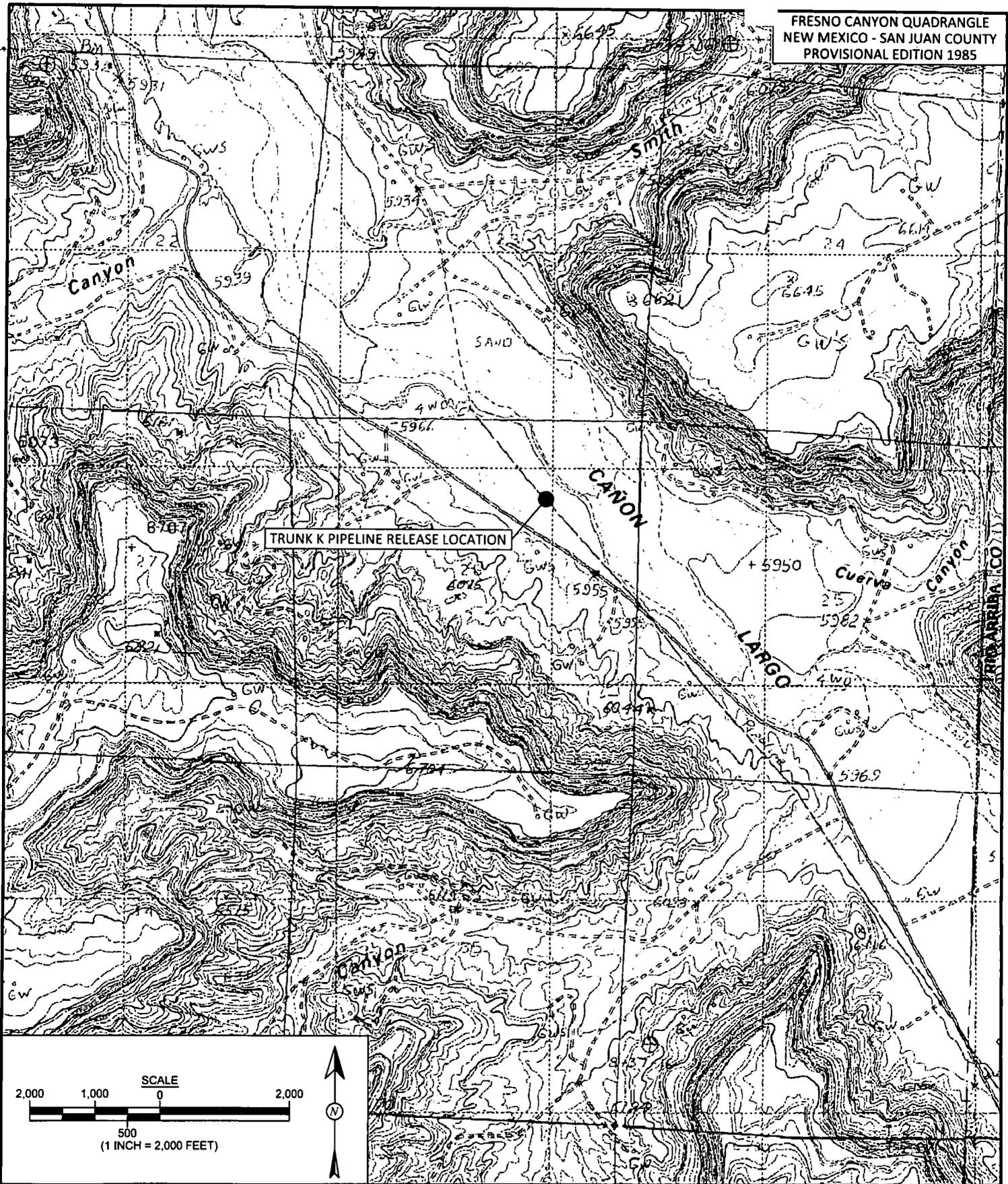
Bills of Lading (Envirotech 44629, 44630, 44634, 44636, 44637, 44639, 44640,  
44645, 44647 through 44650, 44652, 44653, and 44655)

Photograph Log

AES Field Screening Report 091013-091113

Laboratory Analytical Reports (Envirotech P309048 and P309055)

R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2014 Projects\Enterprise\Trunk K\Enterprise  
Trunk K Release Report 031314.docx

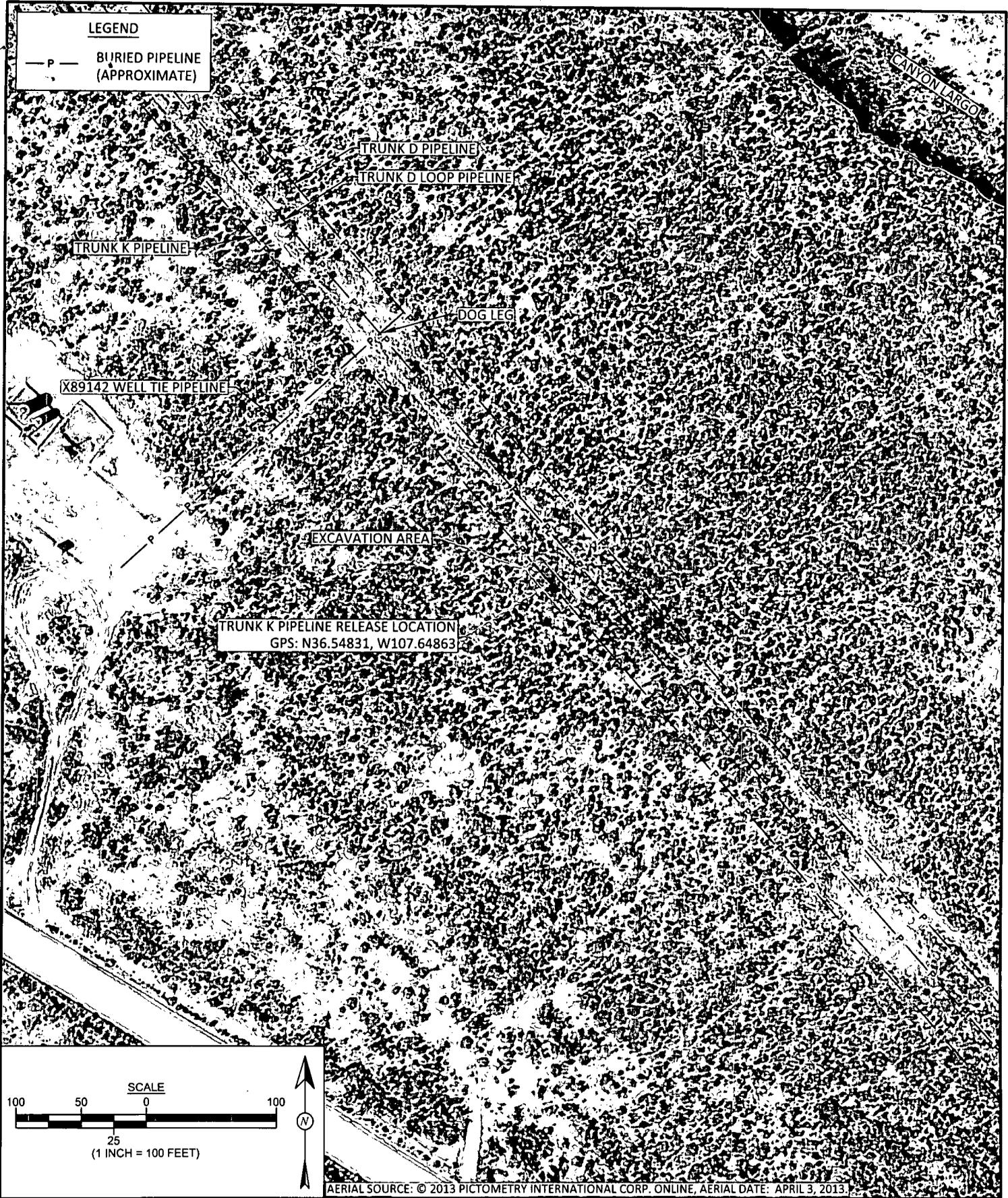


Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> February 12, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> February 12, 2014
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> February 12, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> February 12, 2014

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 ENTERPRISE FIELD SERVICE LLC  
 TRUNK K PIPELINE RELEASE  
 NW¼ NE¼, SECTION 26, T27N, R8W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.54831, W107.64863



<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> February 12, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> February 12, 2014
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> February 12, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> February 12, 2014

**FIGURE 2**

**AERIAL SITE MAP**  
 ENTERPRISE FIELD SERVICE LLC  
 TRUNK K PIPELINE RELEASE - SEPTEMBER 2013  
 NW¼ NE¼, SECTION 26, T27N, R8W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.54831, W107.64863

**FIGURE 3**

**EXCAVATION SAMPLE LOCATIONS AND RESULTS SEPTEMBER 2013**  
 ENTERPRISE FIELD SERVICE LLC  
 TRUNK K PIPELINE RELEASE  
 NW¼ NE¼, SECTION 26, T27N, R8W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.54831, W107.64863

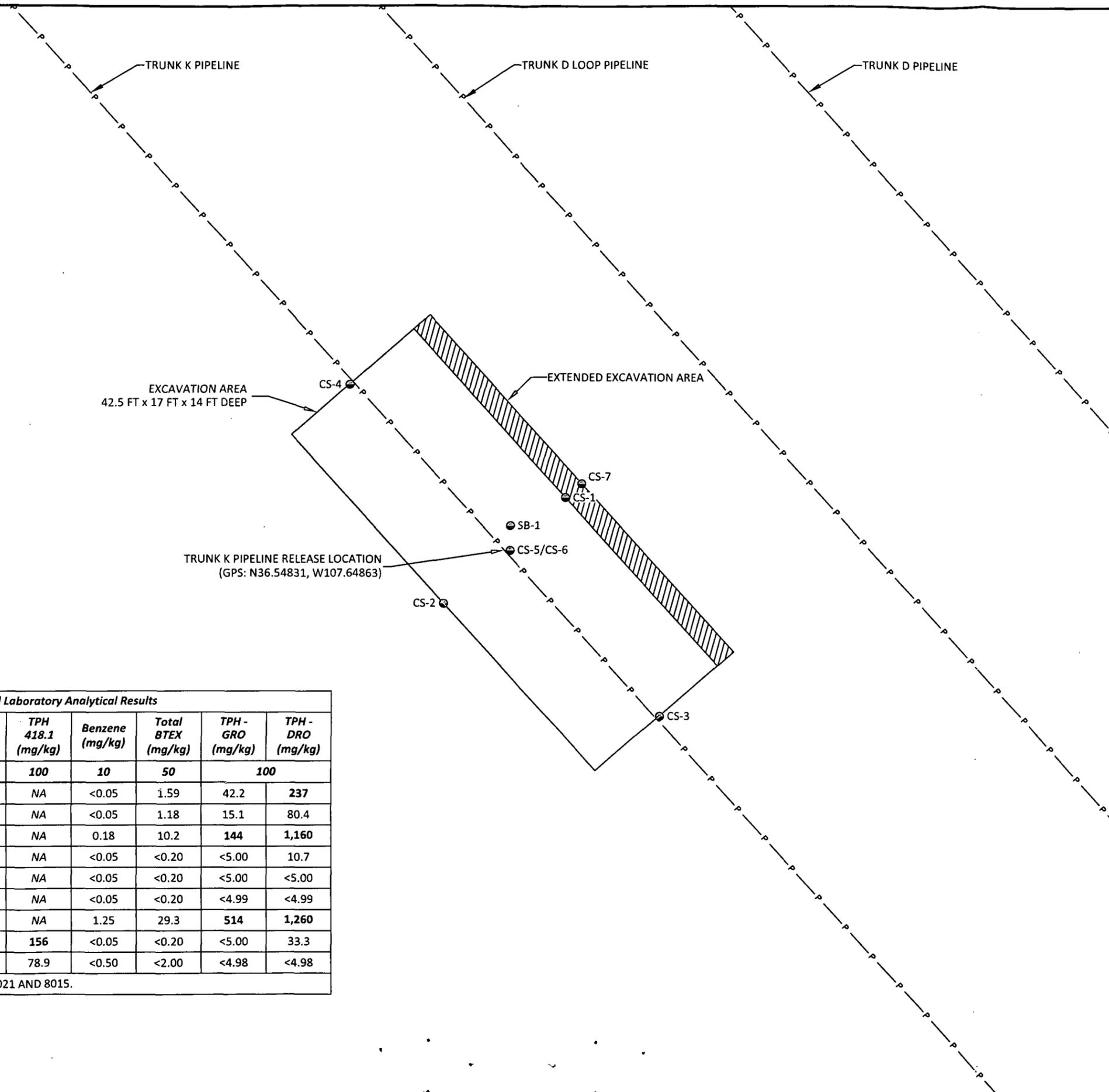


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> February 12, 2014
<b>REVISIONS BY:</b> S. Glasses	<b>DATE REVISED:</b> March 10, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> March 10, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> March 10, 2014

**LEGEND**

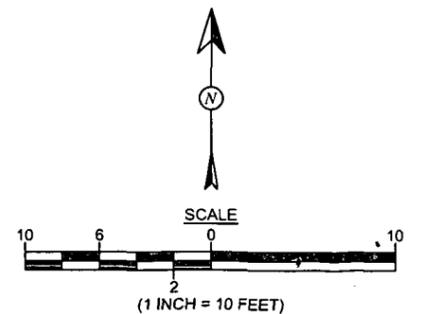
- SAMPLE LOCATIONS
- x - BURIED PIPELINE (APPROXIMATE)



**Field Screening and Laboratory Analytical Results**

Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH 418.1 (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
<b>NMOC ACTION LEVEL</b>			<b>100</b>	<b>100</b>	<b>10</b>	<b>50</b>	<b>100</b>	
SB-1	9/10/13	12	845	NA	<0.05	1.59	42.2	237
	9/10/13	18	587	NA	<0.05	1.18	15.1	80.4
CS-1	9/10/13	1 to 10.5	1,365	NA	0.18	10.2	144	1,160
CS-2	9/10/13	1 to 10.5	1,847	NA	<0.05	<0.20	<5.00	10.7
CS-3	9/10/13	1 to 10.5	0.0	NA	<0.05	<0.20	<5.00	<5.00
CS-4	9/10/13	1 to 10.5	13.4	NA	<0.05	<0.20	<4.99	<4.99
CS-5	9/10/13	10.5	15.7	NA	1.25	29.3	514	1,260
CS-6	9/11/13	14	293	156	<0.05	<0.20	<5.00	33.3
CS-7	9/11/13	1 to 14	42.5	78.9	<0.50	<2.00	<4.98	<4.98

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021 AND 8015.

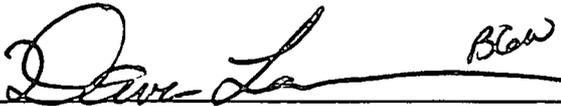




# Bill of Lading

MANIFEST # 44629  
 DATE 9-10-13 JOB # 97057-0537

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
2	E-tech	<del>Site</del>	Clay Fill	-	10	-	Richt Trucking	3	11:00	Curtis A. Riehl
2	"	Trunk <sup>Sub</sup> <del>16"</del>	"	-	10	-	" "	3	1440	Curtis A. Riehl
					20					
RESULTS:		LANDFARM EMPLOYEE:				NOTES:				
/	CHLORIDE TEST									
/	PAINT FILTER TEST	Certification of above receipt & 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. Richt Trucking LLC NAME Curtis Riehl SIGNATURE Curtis A. Riehl

COMPANY CONTACT Charlie Dean PHONE 505 330 4089 DATE 9-10-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44630

DATE 9-10-13 JOB # 97057-0587

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	
2	E-tech	INTERSTATE SW K 16" SW	Clean Fill	—	12	—	MOSS	47	11:35	Lee Moss	
2	11	11	11	—	12	—	MOSS	47	1530	Lee Moss	
					24						
RESULTS:		LANDFARM EMPLOYEE:		 Blaw				NOTES:			
<input checked="" type="checkbox"/>	CHLORIDE TEST										
<input checked="" type="checkbox"/>	PAINT FILTER TEST	Certification of above receipt & 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. MOSS Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT Allan Doyle PHONE 333-2003 DATE 9-10-13

Signatures required prior to distribution of the legal document.





# Bill of Lading

MANIFEST # 44636

DATE 9-10-13 JOB # 97057-0587

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 SW K 16" well	LFI	Cont Soil	A-22	10	—	Yucca Trucking	AF4	1500			
2	11	11	11 11	A-22	10	—	Yucca	AF6	1500			
					20							
RESULTS:		LANDFARM	NOTES: 									
292	CHLORIDE TEST	2							EMPLOYEE:			
	PAINT FILTER TEST	2							Certification of above receipt & 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. Yucca Trucking NAME Henry Armenta SIGNATURE

COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 9-10-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44637

DATE 9-10-13 JOB # 97057-0587

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 <sup>Tank</sup> <del>Site</del> K 14" <del>SW</del> SW	LF II	Cont Sol	A-22	10	—	Ritchey Trucking	471	1909	<i>[Signature]</i>	
					10						
RESULTS:		LANDFARM EMPLOYEE: <i>[Signature]</i>				NOTES:					
K292	CHLORIDE TEST	1	Certification of above receipt & placement								
	PAINT FILTER TEST	1									

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. Ritchey Trucking NAME Elmer Ritchey SIGNATURE *[Signature]*  
 COMPANY CONTACT \_\_\_\_\_ PHONE 632 3530 DATE Sept 9 13

Signatures required prior to distribution of the legal document.





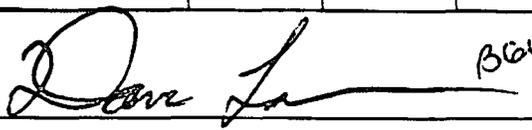
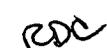


# Bill of Lading

MANIFEST # 44645

DATE 9-11-13 JOB # 97057-0587

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
2	E-tech	ENTERPRISE K-16"	clean Fill	-	12	-	MOSS	47	8:00	Lee Moss
2	"	" SW	"	-	12	-	MOSS	47	12:17	Lee Moss
					<u>24</u>					
RESULTS:		LANDFARM EMPLOYEE:				NOTES:				
<input checked="" type="checkbox"/>	CHLORIDE TEST									
<input checked="" type="checkbox"/>	PAINT FILTER TEST	Certification of above receipt & 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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT Allan Doyle PHONE 486-2754 DATE 9-11-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44647DATE 9-11-13 JOB # 97057-0587

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 TRUNK-K-16	LFII	CON + SOIL	A-23	10	-	Riehl	3	1028	Curtis A. Riehl
2	S.W. " "	" "	" "	A-23	10	-	"	3	1435	Curtis A. Riehl
					<u>20</u>					
RESULTS:		LANDFARM EMPLOYEE:	Gay Robinson <sup>BGM</sup>			NOTES:				
<272	CHLORIDE TEST	1								
	PAINT FILTER TEST	1	Certification of above receipt & placement			RXC				

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. Riehl Trucking LLC NAME Curtis Riehl SIGNATURE Curtis A. Riehl

COMPANY CONTACT Charlie Dean PHONE 505 330 4089 DATE 9-11-13

Signatures required prior to distribution of the legal document.





# Bill of Lading

MANIFEST # 44649  
 DATE 9-11-13 JOB # 97057-0587

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 Trunk-K-165W	LFII	CON'T SOIL	A-23	10	-	Yucca	AF4	1135	<i>[Signature]</i>
2	" "	" "	" "	A-23	10	-	"	AF6	1135	<i>[Signature]</i>
3	" "	" "	" "	A-23	10	-	"	AF4	1544	<i>[Signature]</i>
4	" "	" "	" "	A-23	10	-	"	AF6	1544	<i>[Signature]</i>
						40				
RESULTS:		LANDFARM EMPLOYEE:		<i>Gay Robinson</i> <sup>blaw</sup>		NOTES:				
<292	CHLORIDE TEST	1	Certification of above receipt & placement							
	PAINT FILTER TEST	1								

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. \_\_\_\_\_ NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ *ROC*

COMPANY CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ DATE 9-11-13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44650  
 DATE 9-11-13 JOB # 97057-0587

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	Etech	Enterprise TRUNK-K	Clean	-	10	-	YUCCA	AF4	1135	<i>[Signature]</i>
2	"	16 SW	Fill Soil	-	10	-	"	AF6	1135	<i>[Signature]</i>
					20					
RESULTS:		LANDFARM EMPLOYEE:		Certification of above receipt & placement			NOTES:			
/	CHLORIDE TEST	/								
/	PAINT FILTER TEST	/		BOW			ROC			

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. \_\_\_\_\_ NAME Henry SIGNATURE *[Signature]*  
 COMPANY CONTACT Allen PHONE \_\_\_\_\_ DATE \_\_\_\_\_

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44652DATE 9.11.13 JOB # 97057-0587

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	<del>Enterprise</del>	LFII	CONIT SOIL	A.23	10	-	Ritchey	471	1155	<i>[Signature]</i>
2	Enterprise TRUNK K-1650		" "	A 23	10	-	Ritchey	471	1645	<i>[Signature]</i>
					20					
RESULTS:		LANDFARM EMPLOYEE:		<i>Gay Robinson</i> B6W		NOTES:				
K292	CHLORIDE TEST	1	Certification of above receipt & placement			<i>[Signature]</i> RDC				
	PAINT FILTER TEST	1								

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. Ritchey NAME Elmer T. Ritchey SIGNATURE *[Signature]*  
 COMPANY CONTACT Allen PHONE 632-3558 DATE Sept 11 13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44653

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

DATE 9-11-13 JOB # 97057-0587

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Envitech L.F	Enterprise Trunk K 16-SW	Clay Fill Soil	-	10	-	Ritchey	L71	1155	
					10					
RESULTS:		LANDFARM EMPLOYEE: <u>Gary Roberts</u> <i>Blaw</i>		NOTES:						
/	CHLORIDE TEST	/								
/	PAINT FILTER TEST	/	Certification of above receipt & 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. Ritchey NAME Elvin Ritchey SIGNATURE [Signature]  
 COMPANY CONTACT \_\_\_\_\_ PHONE 632 3534 DATE Sept 11 13

Signatures required prior to distribution of the legal document.



# Bill of Lading

MANIFEST # 44655DATE 9-11-13 JOB # 97057-0587

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 Trunk K-165W	LFI	CONC. SOIL	A-23	10	-	MOSS	47	12:18	Lee Moss
2	"	"	"	A23	10	-	MOSS	47	1605	Lee Moss
					<u>20</u>					
RESULTS:		LANDFARM EMPLOYEE:	<i>Cary Robinson</i> B&W			NOTES:				
<u>292</u>	CHLORIDE TEST	1	Certification of above receipt & placement			RDC				
	PAINT FILTER TEST	1								

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. Moss Excavation NAME Lee Moss SIGNATURE Lee Moss

COMPANY CONTACT Allen Doyle PHONE 486-2754 DATE 9-11-13

Signatures required prior to distribution of the legal document.

Photo #1	
Client: Enterprise Field Services, LLC	
Project: Trunk K Pipeline Release	
Taken by: Heather Woods	
Date: September 9, 2013	
AES Project No. 130908	Description: View looking west of initial excavation prior to pipeline repair.

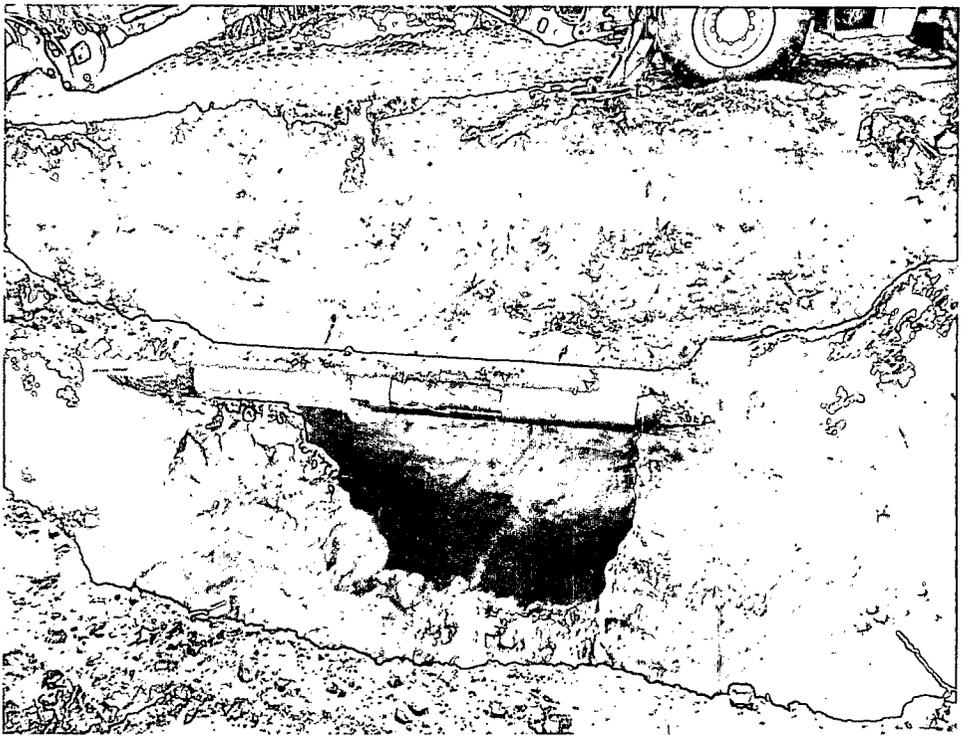
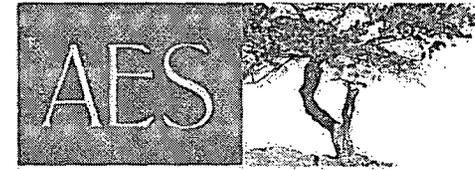
Photo #2	
Client: Enterprise Field Services, LLC	
Project: Trunk K Pipeline Release	
Taken by: Heather Woods	
Date: September 9, 2013	
AES Project No. 130908	Description: View looking southwest of final excavation extents following pipeline repair.

Photo #3	
Client: Enterprise Field Services, LLC	
Project: Trunk K Pipeline Release	
Taken by: Heather Woods	
Date: September 11, 2013	
AES Project No. 130908	Description: View looking northwest of final excavation extents following pipeline repair.

# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: Enterprise Field Services, LLC

Project Location: Trunk K Pipeline Release

Date: 9/10/2013 - 9/11/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 12'	9/10/2013	13:22	845	Not Analyzed for TPH				
SB-1 @ 18'	9/10/2013	13:25	587	Not Analyzed for TPH				
CS-1	9/10/2013	9:37	1,365	Not Analyzed for TPH				
CS-2	9/10/2013	9:40	1,847	Not Analyzed for TPH				
CS-3	9/10/2013	9:43	0.0	Not Analyzed for TPH				
CS-4	9/10/2013	9:47	13.4	Not Analyzed for TPH				
CS-5	9/10/2013	9:50	15.7	Not Analyzed for TPH				
CS-6	9/11/2013	14:39	293	156	14:58	20.0	1	HMW
CS-7	9/11/2013	14:40	42.5	78.9	15:01	20.0	1	HMW

DF Dilution Factor  
 NA Not Analyzed  
 ND Not Detected at the Reporting Limit  
 PQL Practical Quantitation Limit  
 \*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Leather M. Woods*



## Analytical Report

### Report Summary

Client: Animas Environmental Services

Chain Of Custody Number: 16068

Samples Received: 9/10/2013 11:15:00AM

Job Number: 99083-0001

Work Order: P309048

Project Name/Location: Enterprise Trunk K

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 9/11/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Animas Environmental Services  
 624 E. Comanche St.  
 Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
 Project Number: 99083-0001  
 Project Manager: Heather Woods

Reported:  
 11-Sep-13 14:03

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1@12'	P309048-01A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
SB-1@18'	P309048-02A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-1	P309048-03A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-2	P309048-04A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-3	P309048-05A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-4	P309048-06A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.
CS-5	P309048-07A	Soil	09/10/13	09/10/13	Glass Jar, 4 oz.

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fx (800) 362-1879

envirotech-inc.com  
 laboratory@envirotech-inc.com

Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

**SB-1@12'**  
**P309048-01 (Solid)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	0.18	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	0.09	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	1.04	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	0.28	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	1.32	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	1.59	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		102 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.4 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		90.5 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	42.2	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	237	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	279	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

**SB-1@18'**  
**P309048-02 (Solid)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	0.12	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	0.06	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	0.79	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	0.21	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	0.99	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	1.18	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		105 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.0 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		94.9 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	15.1	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	80.4	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	95.5	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

**CS-1**  
**P309048-03 (Solid)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	0.18	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	1.92	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	1.04	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	5.61	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	1.45	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	7.06	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	10.2	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		113 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.6 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		97.9 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	144	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	1160	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	1310	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

CS-2  
P309048-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		102 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		97.0 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: Fluorobenzene</i>		97.2 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	10.7	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	10.7	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

**CS-3**  
**P309048-05 (Solid)**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Volatile Organics by EPA 8021</b>										
Benzene	ND	0.05		mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	ND	0.05		mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.05		mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	ND	0.05		mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	ND	0.05		mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	ND	0.05		mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.05		mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		97.8 %		80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.8 %		80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		97.1 %		80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>										
Gasoline Range Organics (C6-C10)	ND	5.00		mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	5.00		mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
DRO and DRO Combined Fractions	ND	5.00		mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

CS-4

P309048-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		95.2 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		102 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: Fluorobenzene</i>		103 %	80-120		1337004	10-Sep-13	11-Sep-13	EPA 8021B	

**Nonhalogenated Organics by 8015**

Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.99	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

CS-5  
P309048-07 (Solid)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Volatiles Organics by EPA 8021</b>									
Benzene	1.25	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Toluene	6.48	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	2.19	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	16.0	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	3.44	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	19.4	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	29.3	0.50	mg/kg	10	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		100 %		80-120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.2 %		80-120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		94.5 %		80-120	1337004	10-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	514	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	1260	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	1770	5.00	mg/kg	1	1337005	10-Sep-13	10-Sep-13	EPA 8015D	

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Project Name: Enterprise Trunk K  
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Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
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**Batch 1337004 - Purge and Trap EPA 5030A**

**Blank (1337004-BLK1)**

Prepared: 09-Sep-13 Analyzed: 10-Sep-13

Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
<i>Surrogate: Bromochlorobenzene</i>	51.0		ug/L	50.0		102	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	54.1		"	50.0		108	80-120			
<i>Surrogate: Fluorobenzene</i>	53.1		"	50.0		106	80-120			

**Duplicate (1337004-DUP1)**

Source: P309022-01

Prepared: 09-Sep-13 Analyzed: 10-Sep-13

Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
<i>Surrogate: Bromochlorobenzene</i>	43.8		ug/L	50.0		87.7	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	43.8		"	50.0		87.6	80-120			
<i>Surrogate: Fluorobenzene</i>	43.6		"	50.0		87.2	80-120			

**Matrix Spike (1337004-MS1)**

Source: P309022-01

Prepared: 09-Sep-13 Analyzed: 10-Sep-13

Benzene	2.59	0.05	mg/kg	2.50	ND	104	39-150			
Toluene	2.58	0.05	"	2.50	ND	103	46-148			
Ethylbenzene	2.58	0.05	"	2.50	ND	103	32-160			
p,m-Xylene	5.15	0.05	"	5.00	ND	103	46-148			
o-Xylene	2.57	0.05	"	2.50	ND	103	46-148			
<i>Surrogate: Bromochlorobenzene</i>	53.2		ug/L	50.0		106	80-120			
<i>Surrogate: 1,4-Difluorobenzene</i>	51.8		"	50.0		104	80-120			
<i>Surrogate: Fluorobenzene</i>	51.8		"	50.0		104	80-120			

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Animas Environmental Services  
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Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
11-Sep-13 14:03

**Nonhalogenated Organics by 8015 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1337005 - GRO/DRO Extraction EPA 3550C</b>										
<b>Blank (1337005-BLK1)</b>										
Prepared: 09-Sep-13 Analyzed: 10-Sep-13										
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Diesel Range Organics (C10-C28)	ND	5.00	"							
GRO and DRO Combined Fractions	ND	5.00	"							
<b>Duplicate (1337005-DUP1)</b>										
Source: P309022-01 Prepared: 09-Sep-13 Analyzed: 10-Sep-13										
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg		ND				30	
Diesel Range Organics (C10-C28)	ND	4.98	"		ND				30	
<b>Matrix Spike (1337005-MS1)</b>										
Source: P309022-01 Prepared: 09-Sep-13 Analyzed: 10-Sep-13										
Gasoline Range Organics (C6-C10)	262	5.26	mg/kg	263	ND	99.4	75-125			
Diesel Range Organics (C10-C28)	265	5.26	"	263	ND	101	75-125			

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Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

**Reported:**  
11-Sep-13 14:03

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

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# RUSH

## CHAIN OF CUSTODY RECORD

16068

Page 13 of 13

Client: Animas Environmental Services	Project Name / Location: Enterprise Trunk K	ANALYSIS / PARAMETERS:														
Email results to: hwoods@animasenvironmental.com	Sampler Name: Heather Woods	TPH (Method 8015) (300/DeG)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910.1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Client Phone No.: 505-564-2281	Client No.: 99063-0001															

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015) (300/DeG)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910.1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl	Cold/None															
SB-1@12'	9/10/13	849	P309048-01	1-4oz			X	X													✓	✓
SB-1@18'	9/10/13	900	P309048-02	1-4oz			X	X													✓	✓
CS-1	9/10/13	937	P309048-03	1-4oz			X	X													✓	✓
CS-2	9/10/13	940	P309048-04	1-4oz			X	X													✓	✓
CS-3	9/10/13	943	P309048-05	1-4oz			X	X													✓	✓
CS-4	9/10/13	947	P309048-06	1-4oz			X	X													✓	✓
CS-5	9/10/13	950	P309048-07	1-4oz			X	X													✓	✓

Relinquished by: (Signature) <i>Heather M. Woods</i>	Date 9/10/13	Time 11:15	Received by: (Signature) <i>[Signature]</i>	Date 9/10/13	Time 11:15
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix:  
 Soil  Solid  Sludge  Aqueous  Other

Sample(s) dropped off after hours to secure drop-off area.





## Analytical Report

### Report Summary

Client: Animas Environmental Services

Chain Of Custody Number: 16076

Samples Received: 9/11/2013 4:20:00PM

Job Number: 99083-0001

Work Order: P309055

Project Name/Location: Enterprise Trunk K

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 9/12/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

**Reported:**  
12-Sep-13 10:42

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS-6	P309055-01A	Soil	09/11/13	09/11/13	Glass Jar, 4 oz.
CS-7	P309055-02A	Soil	09/11/13	09/11/13	Glass Jar, 4 oz.

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
12-Sep-13 10:42

**CS-6**  
**P309055-01 (Solid)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Bromochlorobenzene		100 %	80-120		1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		95.4 %	80-120		1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Surrogate: Fluorobenzene		93.9 %	80-120		1337027	11-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	33.3	5.00	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
ARO and DRO Combined Fractions	33.3	5.00	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fx (800) 362-1879

envirotech-inc.com  
laboratory@envirotech-inc.com

Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
12-Sep-13 10:42

CS-7  
P309055-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Toluene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Ethylbenzene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
p,m-Xylene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
o-Xylene	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Total Xylenes	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
Total BTEX	ND	0.50	mg/kg	10	1337027	11-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: Bromochlorobenzene</i>		90.7 %	80-120		1337027	11-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		93.0 %	80-120		1337027	11-Sep-13	11-Sep-13	EPA 8021B	
<i>Surrogate: Fluorobenzene</i>		91.1 %	80-120		1337027	11-Sep-13	11-Sep-13	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	4.98	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	
GRO and DRO Combined Fractions	ND	4.98	mg/kg	1	1337026	11-Sep-13	12-Sep-13	EPA 8015D	

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Animas Environmental Services  
 624 E. Comanche St.  
 Farmington NM, 87401-6815

 Project Name: Enterprise Trunk K  
 Project Number: 99083-0001  
 Project Manager: Heather Woods

 Reported:  
 12-Sep-13 10:42

**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1337027 - Purge and Trap EPA 5030A**
**Blank (1337027-BLK1)**

Prepared &amp; Analyzed: 11-Sep-13

Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
m-Xylene	ND	0.05	"							
p-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: Bromochlorobenzene	49.8		ug/L	50.0		99.7	80-120			
Surrogate: 1,4-Difluorobenzene	50.2		"	50.0		100	80-120			
Surrogate: Fluorobenzene	49.9		"	50.0		99.7	80-120			

**Duplicate (1337027-DUP1)**

Source: P309035-01

Prepared &amp; Analyzed: 11-Sep-13

Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
m-Xylene	ND	0.05	"		ND				30	
p-Xylene	ND	0.05	"		ND				30	
Surrogate: Bromochlorobenzene	46.5		ug/L	50.0		93.1	80-120			
Surrogate: 1,4-Difluorobenzene	49.6		"	50.0		99.3	80-120			
Surrogate: Fluorobenzene	49.1		"	50.0		98.2	80-120			

**Matrix Spike (1337027-MS1)**

Source: P309035-01

Prepared &amp; Analyzed: 11-Sep-13

Benzene	47.7		ug/L	50.0	0.59	94.3	39-150			
Toluene	49.0		"	50.0	0.94	96.2	46-148			
Ethylbenzene	48.7		"	50.0	0.15	97.2	32-160			
m-Xylene	97.6		"	100	0.75	96.9	46-148			
p-Xylene	48.7		"	50.0	0.24	97.0	46-148			
Surrogate: Bromochlorobenzene	46.5		"	50.0		93.1	80-120			
Surrogate: 1,4-Difluorobenzene	49.0		"	50.0		98.0	80-120			
Surrogate: Fluorobenzene	48.8		"	50.0		97.5	80-120			

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

Reported:  
12-Sep-13 10:42

**Nonhalogenated Organics by 8015 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1337026 - GRO/DRO Extraction EPA 3550C**

**Blank (1337026-BLK1)**

Prepared & Analyzed: 11-Sep-13

Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Diesel Range Organics (C10-C28)	ND	5.00	"							
GRO and DRO Combined Fractions	ND	5.00	"							

**Duplicate (1337026-DUP1)**

Source: P309035-01

Prepared & Analyzed: 11-Sep-13

Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
Diesel Range Organics (C10-C28)	149	4.99	"		1010			149	30	D1

**Matrix Spike (1337026-MS1)**

Source: P309035-01

Prepared & Analyzed: 11-Sep-13

Gasoline Range Organics (C6-C10)	254	5.26	mg/kg	263	ND	96.4	75-125			
Diesel Range Organics (C10-C28)	1080	5.26	"	263	1010	25.8	75-125			SPK1

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Animas Environmental Services  
624 E. Comanche St.  
Farmington NM, 87401-6815

Project Name: Enterprise Trunk K  
Project Number: 99083-0001  
Project Manager: Heather Woods

**Reported:**  
12-Sep-13 10:42

### Notes and Definitions

SPK1 The spike recovery for this QC sample is outside of control limits.

D1 Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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RUSH

# CHAIN OF CUSTODY RECORD

16076

Page 8 of 8

Client: Animas Environmental Services Project Name / Location: Enterprise Trunk K.

Email results to: hwoods@animasenvironmental.com Sampler Name: Heather Woods

Client Phone No.: 505-564-2201 Client No.: 99053-0001

## ANALYSIS / PARAMETERS

Sample No. / Identification	Sample Date	Sample Time	Lab No.	No. / Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact	
					HNO <sub>3</sub>	HCl	Cold															
CS-6	9/11/13	1439	P309055-01	1-4oz			X	X	X											Y	Y	
CS-7	9/11/13	1440	P309055-02	1-4oz			X	X	X											Y	Y	

Relinquished by: (Signature) <u>Heather M. Woods</u>	Date <u>9/11/13</u>	Time <u>1620</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/11/13</u>	Time <u>1620</u>
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>					

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>Trunk 10A</b>	Facility Type: <b>Natural Gas Gathering Line</b>

Surface Owner: <b>NAPI/Navajo Nation</b>	Mineral Owner: <b>BLM</b>	API No.
--	---------------------------	---------

**LOCATION OF RELEASE**

Unit Letter <b>N</b>	Section <b>27</b>	Township <b>26N</b>	Range <b>12W</b>	Feet from the <b>1201</b>	North/South Line <b>South</b>	Feet from the <b>1874</b>	East/West Line <b>West</b>	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	------------------------------	----------------------------------	------------------------------	-------------------------------	---------------------------

Latitude 36.455278 Longitude -108.101562

**NATURE OF RELEASE**

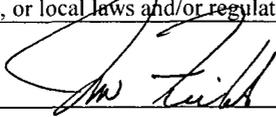
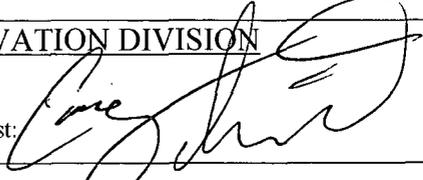
Type of Release: Natural Gas and Natural gas liquids	Volume of Release: <b>Unknown about of gas; Estimated to be 1-2 bbls of fluids</b>	Volume Recovered: <b>Unknown</b>
Source of Release: Internal Corrosion of the Pipeline	Date and Hour of Occurrence: <b>2/19/2014 @ 12:30 p.m.</b>	Date and Hour of Discovery: <b>2/19/2014 @ 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? NMOCD - Jonathan Kelly, NNEPA - Steve Austin, Greg Yazzie and Mike Freeman - NAPI	
By Whom? <b>Thomas Long</b>	Date and Hour <b>2/19/2014 @ 9:18 ~1:30 p.m.</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 Trunk 10A. The release was a result of internal corrosion of the pipeline. Initially a surface area of approximately 12 feet by 25 feet was affected. The line was blown down, taken out of service and LOTO (lock out tag out) was applied. The repairs/remediation activities were completed on February 27, 2014.

Describe Area Affected and Cleanup Action Taken.\* Assessment and remediation activities were completed February 27, 2014. The excavation remained open until April due to scheduling conflicts. The stockpile soil was resampled to determine contaminant concentrations. Laboratory analysis indicated contaminant concentrations were below New Mexico Oil Conservation Division remediation standards and stockpile soils were used as backfill. A third party environmental contractor corrective action report is included with this "final" c-141.

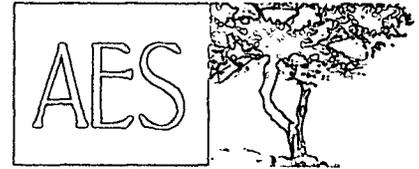
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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 Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>6/10/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>6-3-2014</u> Phone: (713)381-6684		

\* Attach Additional Sheets If Necessary

# NCS 141 6151 739

29



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

May 20, 2014

Thomas Long  
Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, New Mexico 87401

Via electronic mail with delivery confirmation receipt to:  
[tjlong@eprod.com](mailto:tjlong@eprod.com)

**OIL CONS. DIV DIST. 3**

**JUN 09 2014**

**RE: Release Assessment Report  
Trunk 10A February 2014 Pipeline Release  
SE¼ SW¼, Section 27, T26N, R12W  
N36.455278, W108.10156  
San Juan County, New Mexico**

Dear Mr. Long:

On February 27, 2014, Animas Environmental Services, LLC (AES) completed an assessment associated with a release of natural gas and pipeline liquids from the Enterprise Field Services, LLC (Enterprise) 4-inch diameter Trunk 10A pipeline. The release was discovered on February 19, 2014, and resulted from pipeline corrosion.

---

## 1.0 Site Information

### 1.1 Location

Location – Unit Letter N, Section 27, T26N, R12W, San Juan County, New Mexico

Latitude/Longitude – N36.455278 and W108.101562, respectively

Surface Owner – Navajo Agricultural Products Industry (NAPI)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, February 2014

### 1.2 NMOCD Ranking

In accordance with Navajo Nation Environmental Protection Agency (NNEPA) release protocols, action levels were established per New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the assessment. The release was given a ranking score of 40 based on the following factors:

- **Depth to Groundwater:** A perched groundwater table associated with percolation of irrigation water is often observed at less than 10 feet below ground surface (bgs) in the surrounding area. (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The release is located approximately 90 feet to the north of an ephemeral wash which discharges to West Fork Gallegos Canyon. (20 points)

The ranking score of 40 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO). An action level of 100 parts per million (ppm) volatile organic compound (VOCs) concentrations via organic vapor meter (OVM) may be substituted for laboratory analysis of benzene and total BTEX.

### 1.3 Assessment and Mitigation

On February 27, 2014, Enterprise contractors completed an excavation along the pipeline and determined the release was the result of a pipeline leak caused by internal corrosion. The pipeline was repaired, and prior to backfilling the excavation AES collected soil samples from the walls and base of the excavation, as well two composite samples from the stockpiled soils for field sampling and laboratory analysis. The backfill material was sampled by AES on April 23, 2014, to confirm the natural attenuation of petroleum hydrocarbon impact through natural attenuation. The final excavation measured approximately 23.5 feet by 55 feet by 5 feet deep and was backfilled with the stockpiled soils. Soil sample locations and final excavation extents are included on Figure 3. A photograph log is included in the Appendix.

---

## 2.0 Soil Sampling

Five soil samples (S-1 through S-5) were collected from the walls and the base of the final excavation, and two composite samples (SC-1 and SC-2) were collected from the stockpiles during the initial assessment. Additionally, one composite sample (SC-3) was collected from the backfill material to confirm natural attenuation of petroleum hydrocarbon impacts. Each sample was field sampled for VOCs and submitted for laboratory analysis.

## 2.1 Field Sampling

### 2.1.1 Volatile Organic Compounds

Field sampling for VOC vapors was conducted with a photo-ionization detector (PID) OVM. Before beginning field sampling, the PID-OVM was first calibrated with 100 ppm isobutylene gas.

## 2.2 Laboratory Analyses

Soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

- BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B; and
- TPH (GRO/DRO) per USEPA Method 8015D.

## 2.3 Field Sampling and Laboratory Analytical Results

Soil field sampling results showed that VOC concentrations via OVM ranged from 0.8 ppm in S-5 up to 11.8 ppm in S-4. Results are included in Table 1 and on Figure 3.

Table 1. Soil Field Sampling – VOCs  
 Trunk 10A Release Assessment, February and April, 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>
<b>NMOCD Action Level*</b>			<b>100</b>
S-1	2/27/14	5	7.2
S-2	2/27/14	1 to 5	2.2
S-3	2/27/14	1 to 5	1.7
S-4	2/27/14	1 to 5	11.8
S-5	2/27/14	1 to 5	0.8
SC-1	2/27/14	Stockpile	3.1
SC-2	2/27/14	Stockpile	6.8
SC-3	4/23/14	Backfill	NA

NA – Not Analyzed

\*NNEPA action levels determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

Laboratory analytical results showed that benzene and total BTEX concentrations were below laboratory detection limits in all samples. TPH concentrations (GRO/DRO) were also below laboratory detection limits in all samples, except SC-2 with 270 mg/kg. Laboratory analytical results are included in Table 2 and on Figure 3. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
 Trunk 10A Release Assessment, February and April 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene	Total BTEX	TPH – GRO	TPH – DRO
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMOCD Action Level*			10	50	100	
S-1	2/27/14	5	<0.049	<0.245	<4.9	<9.9
S-2	2/27/14	1 to 5	<0.046	<0.231	<4.6	<10
S-3	2/27/14	1 to 5	<0.048	<0.241	<4.8	<9.9
S-4	2/27/14	1 to 5	<0.049	<0.245	<4.9	<9.9
S-5	2/27/14	1 to 5	<0.049	<0.246	<4.9	<9.9
SC-1	2/27/14	Stockpile	<0.048	<0.239	<4.8	<9.9
SC-2	2/27/14	Stockpile	<0.048	<0.240	<b>&lt;4.8</b>	<b>270</b>
SC-3	4/23/14	Backfill	NA	NA	<4.8	<10

NA – Not Analyzed

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

### 3.0 Conclusions and Recommendations

On February 27, 2014, AES conducted an assessment associated with a pipeline release on the Trunk 10A. NNEPA utilizes action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 40. Field sampling of S-1 through S-5 and composite soil samples SC-1 and SC-2 showed VOC concentrations below the NMOCD action level of 100 ppm, with the highest VOC concentration reported in S-4 with 11.8 ppm. Soil laboratory analytical results showed that benzene, total BTEX, and TPH concentrations were below laboratory detection limits in all samples except SC-2, which had a TPH concentration above the NMOCD action level of 100 mg/kg with 270 mg/kg. The backfill material associated with SC-2 was subsequently resampled on April 23, 2014, and laboratory analytical results showed that TPH (GRO/DRO) concentrations were below the NMOCD action level and laboratory

detection limits confirming that natural attenuation of petroleum hydrocarbons had occurred.

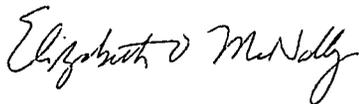
Based on field sampling and laboratory results of the final excavation extents for petroleum contaminated soils, VOCs, benzene, total BTEX, and TPH concentrations are below the applicable NMOCD action levels. No further work is recommended for the Trunk 10A February 2014 Pipeline Release.

If you have any questions about this report or site conditions, please do not hesitate to contact Kelsey Christiansen or Elizabeth McNally at (505) 564-2281.

Sincerely,



Kelsey Christiansen  
Environmental Scientist  
Project Manager

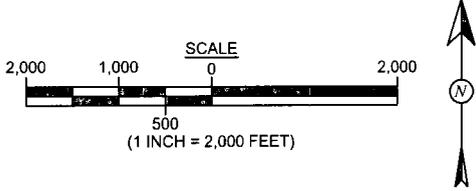
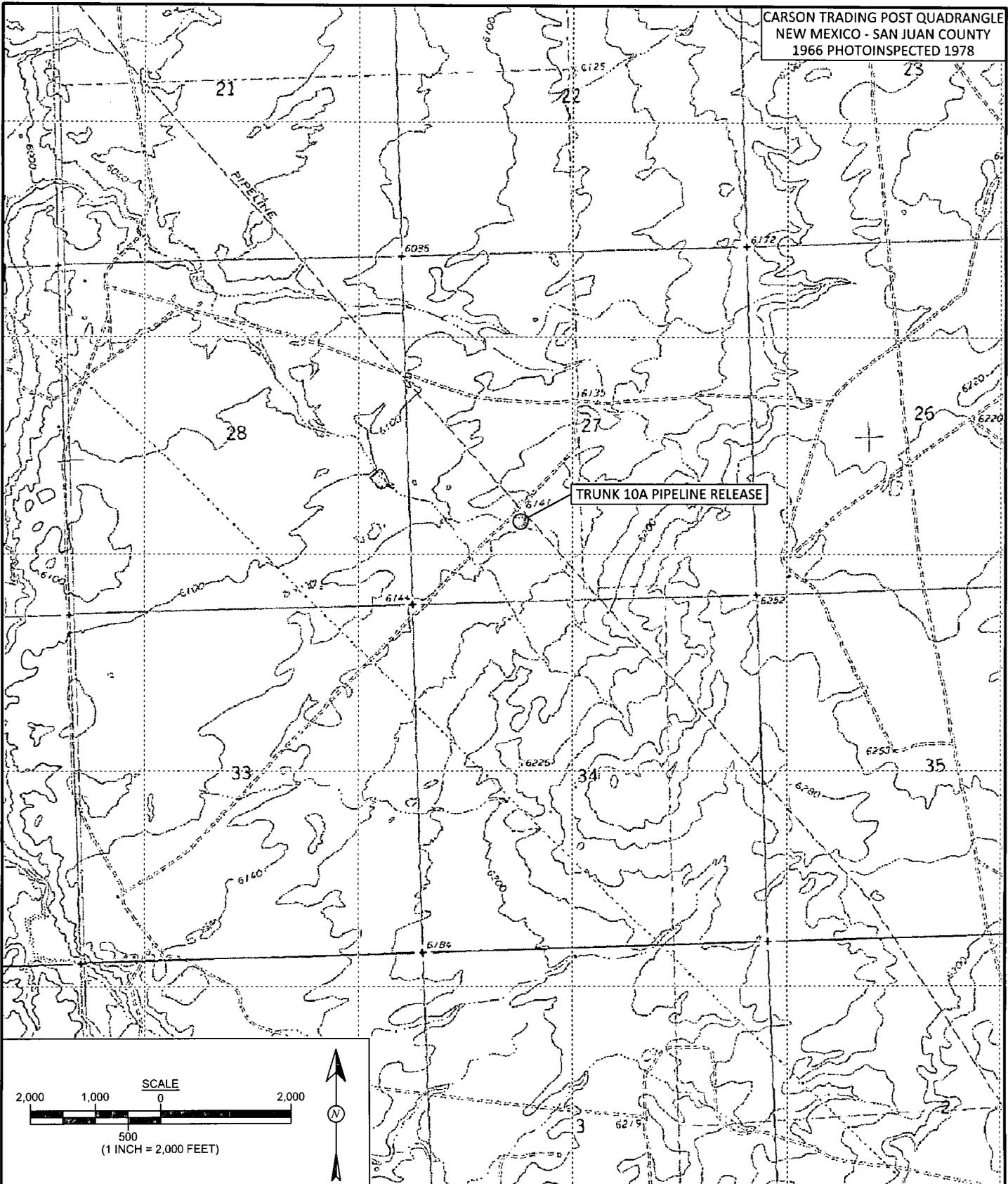


Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, February 2014
- Figure 3. Final Excavation Sample Locations and Results, February and April 2014  
Photograph Log
- Laboratory Analytical Reports (Hall 1402B37 and 1404A72)

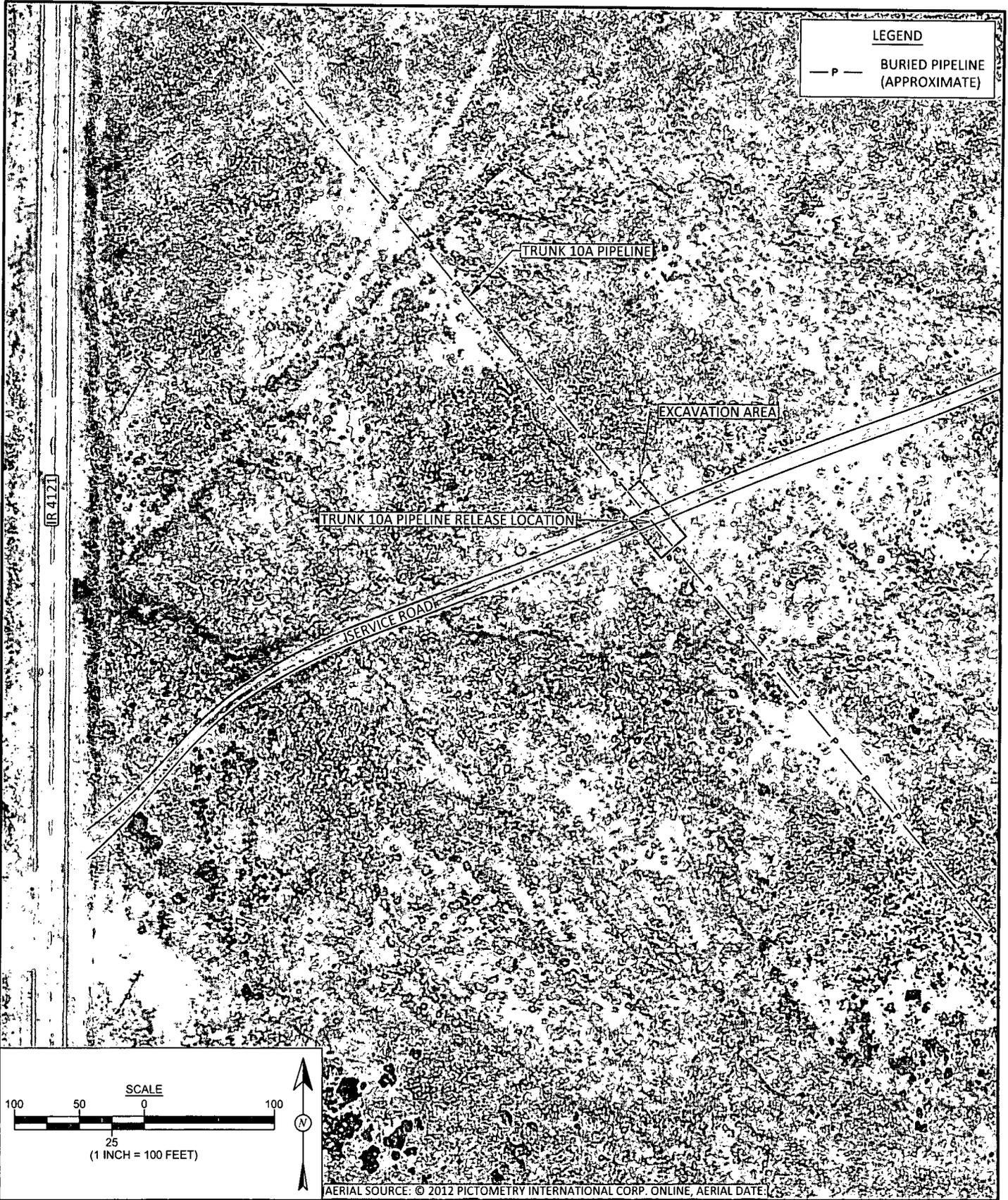
CARSON TRADING POST QUADRANGLE  
 NEW MEXICO - SAN JUAN COUNTY  
 1966 PHOTOINSPECTED 1978



Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> March 7, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> May 8, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> May 8, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> May 8, 2014

**FIGURE 1**  
**TOPOGRAPHIC SITE LOCATION MAP**  
 ENTERPRISE FIELD SERVICES LLC  
 TRUNK 10A PIPELINE RELEASE ASSESSMENT  
 SE¼ SW¼, SECTION 27, T26N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.455278, W108.101562



<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> March 7, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> May 8, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> May 8, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> May 8, 2014

**FIGURE 2**

**AERIAL SITE MAP  
 FEBRUARY 2014**

ENTERPRISE FIELD SERVICES LLC  
 TRUNK 10A PIPELINE RELEASE ASSESSMENT  
 SE¼ SW¼, SECTION 27, T26N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.455278, W108.101562

**FIGURE 3**

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS**  
**FEBRUARY AND APRIL 2014**  
 ENTERPRISE FIELD SERVICES LLC  
 TRUNK 10A PIPELINE RELEASE ASSESSMENT  
 SE¼ SW¼, SECTION 27, T26N, R12W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.455278, W108.101562

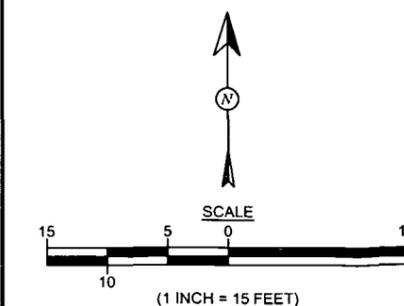


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> March 14, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> May 8, 2014
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> May 8, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> May 8, 2014

**LEGEND**

- SAMPLE LOCATIONS
- P — BURIED PIPELINE (APPROXIMATE)



Sample ID	Date	Depth (ft)	OVM-PID (ppm)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>100</b>	<b>10</b>	<b>50</b>	<b>100</b>	
S-1	2/27/14	5	7.2	<0.049	<0.245	<4.9	<9.9
S-2	2/27/14	1 to 5	2.2	<0.046	<0.231	<4.6	<10
S-3	2/27/14	1 to 5	1.7	<0.048	<0.241	<4.8	<9.9
S-4	2/27/14	1 to 5	11.8	<0.049	<0.245	<4.9	<9.9
S-5	2/27/14	1 to 5	0.8	<0.049	<0.246	<4.9	<9.9
SC-1	2/27/14	Stockpile	3.1	<0.048	<0.239	<4.8	<9.9
SC-2	2/27/14	Stockpile	6.8	<0.048	<0.240	<b>&lt;4.8</b>	<b>&lt;270</b>
SC-3	4/23/14	Backfill	NA	NA	NA	<4.8	<10

SC-1, SC-2, AND SC-3 WERE COMPOSITE SAMPLES. ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND 8015D.  
 NA - NOT ANALYZED

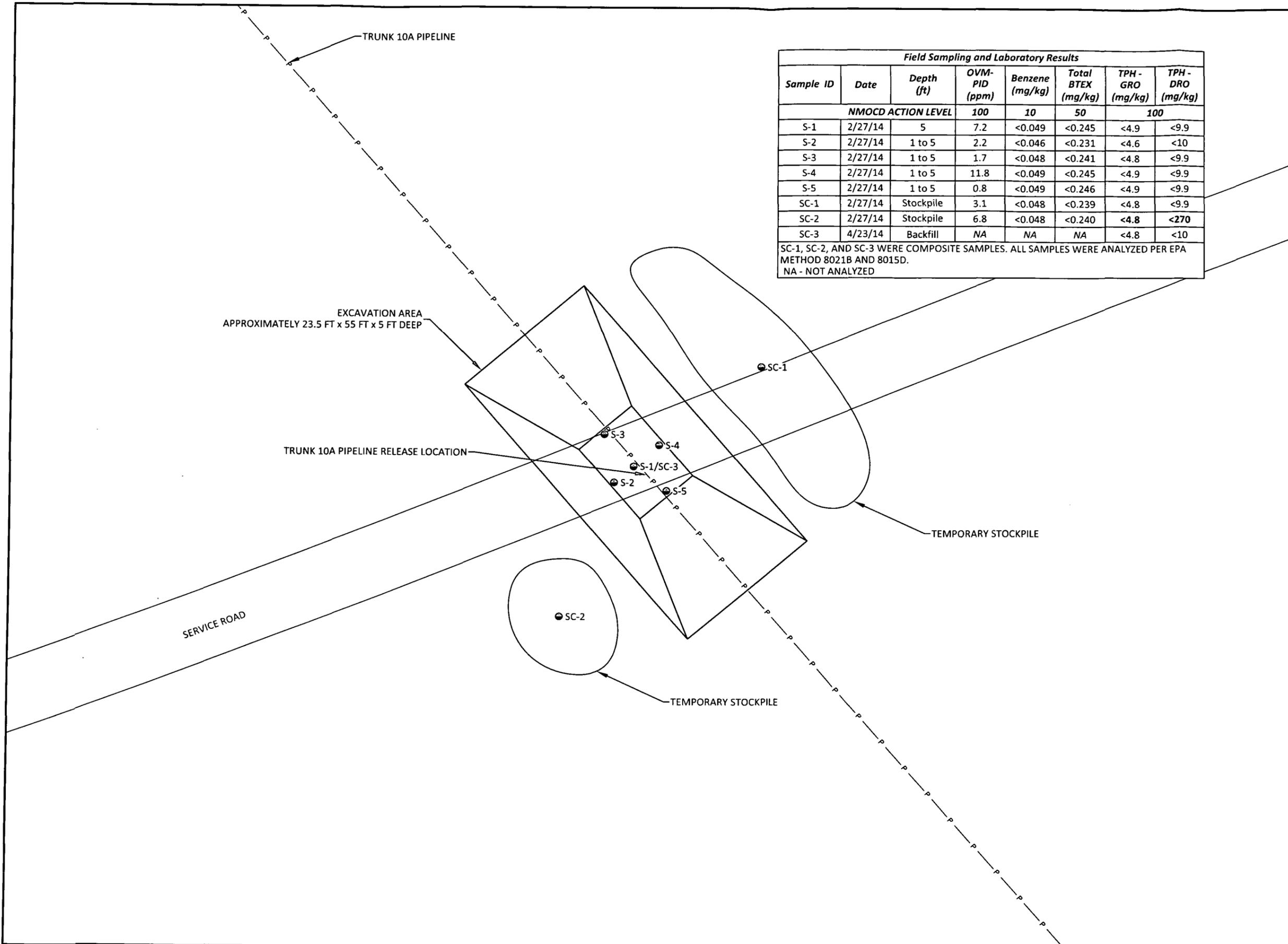


Photo #1	
Client: Enterprise Field Services, LLC	
Project: Trunk 10A Pipeline Release	
Taken by: Heather Woods	
Date: February 27, 2014	
AES Project No. 140224	Description: View of final excavation looking southeast.

Photo #2	
Client: Enterprise Field Services, LLC	
Project: Trunk 10A Pipeline Release	
Taken by: Heather Woods	
Date: February 27, 2014	
AES Project No. 140224	Description: View of final excavation looking northeast.



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)

March 06, 2014

Heather Woods

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 716-2787  
FAX (505) 324-2022

RE: Enterprise Trunk 10A

OrderNo.: 1402B37

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 7 sample(s) on 2/28/2014 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](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.**

**Analytical Report**  
 Lab Order 1402B37  
 Date Reported: 3/6/2014

**CLIENT:** Animas Environmental Services

**Client Sample ID:** S-1

**Project:** Enterprise Trunk 10A

**Collection Date:** 2/27/2014 2:12:00 PM

**Lab ID:** 1402B37-001

**Matrix:** SOIL

**Received Date:** 2/28/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/4/2014 10:02:39 AM	11965
Surr: DNOP	112	66-131		%REC	1	3/4/2014 10:02:39 AM	11965
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/4/2014 2:00:52 PM	11962
Surr: BFB	90.6	74.5-129		%REC	1	3/4/2014 2:00:52 PM	11962
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/4/2014 2:00:52 PM	11962
Toluene	ND	0.049		mg/Kg	1	3/4/2014 2:00:52 PM	11962
Ethylbenzene	ND	0.049		mg/Kg	1	3/4/2014 2:00:52 PM	11962
Xylenes, Total	ND	0.098		mg/Kg	1	3/4/2014 2:00:52 PM	11962
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	3/4/2014 2:00:52 PM	11962

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
	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:** Animas Environmental Services

**Client Sample ID:** S-2

**Project:** Enterprise Trunk 10A

**Collection Date:** 2/27/2014 2:14:00 PM

**Lab ID:** 1402B37-002

**Matrix:** SOIL

**Received Date:** 2/28/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/4/2014 10:33:25 AM	11965
Surr: DNOP	90.8	66-131		%REC	1	3/4/2014 10:33:25 AM	11965
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/4/2014 3:31:42 PM	11962
Surr: BFB	83.1	74.5-129		%REC	1	3/4/2014 3:31:42 PM	11962
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.046		mg/Kg	1	3/4/2014 3:31:42 PM	11962
Toluene	ND	0.046		mg/Kg	1	3/4/2014 3:31:42 PM	11962
Ethylbenzene	ND	0.046		mg/Kg	1	3/4/2014 3:31:42 PM	11962
Xylenes, Total	ND	0.093		mg/Kg	1	3/4/2014 3:31:42 PM	11962
Surr: 4-Bromofluorobenzene	91.6	80-120		%REC	1	3/4/2014 3:31:42 PM	11962

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	
	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	Page 2 of 12
	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:** Animas Environmental Services

**Client Sample ID:** S-4

**Project:** Enterprise Trunk 10A

**Collection Date:** 2/27/2014 2:18:00 PM

**Lab ID:** 1402B37-004

**Matrix:** SOIL

**Received Date:** 2/28/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/4/2014 11:34:38 AM	11965
Surr: DNOP	104	66-131		%REC	1	3/4/2014 11:34:38 AM	11965
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/5/2014 1:03:12 PM	11962
Surr: BFB	87.9	74.5-129		%REC	1	3/5/2014 1:03:12 PM	11962
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/5/2014 1:03:12 PM	11962
Toluene	ND	0.049		mg/Kg	1	3/5/2014 1:03:12 PM	11962
Ethylbenzene	ND	0.049		mg/Kg	1	3/5/2014 1:03:12 PM	11962
Xylenes, Total	ND	0.098		mg/Kg	1	3/5/2014 1:03:12 PM	11962
Surr: 4-Bromofluorobenzene	96.2	80-120		%REC	1	3/5/2014 1:03:12 PM	11962

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
	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:** Animas Environmental Services

**Client Sample ID:** S-5

**Project:** Enterprise Trunk 10A

**Collection Date:** 2/27/2014 2:20:00 PM

**Lab ID:** 1402B37-005

**Matrix:** SOIL

**Received Date:** 2/28/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/4/2014 12:05:25 PM	11965
Surr: DNOP	95.6	66-131		%REC	1	3/4/2014 12:05:25 PM	11965
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/4/2014 5:01:57 PM	11962
Surr: BFB	91.2	74.5-129		%REC	1	3/4/2014 5:01:57 PM	11962
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/4/2014 5:01:57 PM	11962
Toluene	ND	0.049		mg/Kg	1	3/4/2014 5:01:57 PM	11962
Ethylbenzene	ND	0.049		mg/Kg	1	3/4/2014 5:01:57 PM	11962
Xylenes, Total	ND	0.099		mg/Kg	1	3/4/2014 5:01:57 PM	11962
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	3/4/2014 5:01:57 PM	11962

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
	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: Animas Environmental Services  
 Project: Enterprise Trunk 10A  
 Lab ID: 1402B37-006

Client Sample ID: SC-1  
 Collection Date: 2/27/2014 2:25:00 PM  
 Received Date: 2/28/2014 10:00:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/4/2014 12:36:16 PM	11965
Surr: DNOP	96.5	66-131		%REC	1	3/4/2014 12:36:16 PM	11965
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/4/2014 5:32:13 PM	11962
Surr: BFB	89.7	74.5-129		%REC	1	3/4/2014 5:32:13 PM	11962
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.048		mg/Kg	1	3/4/2014 5:32:13 PM	11962
Toluene	ND	0.048		mg/Kg	1	3/4/2014 5:32:13 PM	11962
Ethylbenzene	ND	0.048		mg/Kg	1	3/4/2014 5:32:13 PM	11962
Xylenes, Total	ND	0.095		mg/Kg	1	3/4/2014 5:32:13 PM	11962
Surr: 4-Bromofluorobenzene	96.8	80-120		%REC	1	3/4/2014 5:32:13 PM	11962

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	
	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	Page 6 of 12
	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:** Animas Environmental Services

**Client Sample ID:** SC-2

**Project:** Enterprise Trunk 10A

**Collection Date:** 2/27/2014 2:29:00 PM

**Lab ID:** 1402B37-007

**Matrix:** SOIL

**Received Date:** 2/28/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	270	10		mg/Kg	1	3/4/2014 1:06:56 PM	11965
Surr: DNOP	119	66-131		%REC	1	3/4/2014 1:06:56 PM	11965
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/5/2014 1:31:51 PM	11962
Surr: BFB	84.4	74.5-129		%REC	1	3/5/2014 1:31:51 PM	11962
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.048		mg/Kg	1	3/5/2014 1:31:51 PM	11962
Toluene	ND	0.048		mg/Kg	1	3/5/2014 1:31:51 PM	11962
Ethylbenzene	ND	0.048		mg/Kg	1	3/5/2014 1:31:51 PM	11962
Xylenes, Total	ND	0.096		mg/Kg	1	3/5/2014 1:31:51 PM	11962
Surr: 4-Bromofluorobenzene	96.7	80-120		%REC	1	3/5/2014 1:31:51 PM	11962

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
	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#: 1402B37

06-Mar-14

Client: Animas Environmental Services

Project: Enterprise Trunk 10A

Sample ID	MB-11965	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11965	RunNo:	17073					
Prep Date:	3/3/2014	Analysis Date:	3/4/2014	SeqNo:	491074	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		95.2	66	131			

Sample ID	LCS-11965	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11965	RunNo:	17073					
Prep Date:	3/3/2014	Analysis Date:	3/4/2014	SeqNo:	491080	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.4	60.8	145			
Surr: DNOP	3.6		5.000		71.3	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#: 1402B37

06-Mar-14

**Client:** Animas Environmental Services  
**Project:** Enterprise Trunk 10A

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R17094</b>	RunNo:	<b>17094</b>					
Prep Date:		Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491583</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		96.0	74.5	129			

Sample ID	<b>2.5UG GRO LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R17094</b>	RunNo:	<b>17094</b>					
Prep Date:		Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491584</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	74.5	129			

Sample ID	<b>MB-11962</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11962</b>	RunNo:	<b>17086</b>					
Prep Date:	<b>2/28/2014</b>	Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491635</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	810		1000		80.6	74.5	129			

Sample ID	<b>LCS-11962</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11962</b>	RunNo:	<b>17086</b>					
Prep Date:	<b>2/28/2014</b>	Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491636</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	71.7	134			
Surr: BFB	920		1000		91.5	74.5	129			

Sample ID	<b>MB-12008 MK</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R17108</b>	RunNo:	<b>17108</b>					
Prep Date:		Analysis Date:	<b>3/5/2014</b>	SeqNo:	<b>492293</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	810		1000		81.1	74.5	129			

Sample ID	<b>LCS-12008 MK</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R17108</b>	RunNo:	<b>17108</b>					
Prep Date:		Analysis Date:	<b>3/5/2014</b>	SeqNo:	<b>492294</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		90.5	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#: 1402B37

06-Mar-14

Client: Animas Environmental Services

Project: Enterprise Trunk 10A

Sample ID	MB-12010	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12010	RunNo:	17108					
Prep Date:	3/4/2014	Analysis Date:	3/5/2014	SeqNo:	492296	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	840		1000		84.1	74.5	129			

Sample ID	LCS-12010	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12010	RunNo:	17108					
Prep Date:	3/4/2014	Analysis Date:	3/5/2014	SeqNo:	492297	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		90.6	74.5	129			

## 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#: 1402B37  
06-Mar-14

**Client:** Animas Environmental Services  
**Project:** Enterprise Trunk 10A

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R17094</b>	RunNo:	<b>17094</b>					
Prep Date:		Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491611</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	<b>100NG BTEX LCS2</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R17094</b>	RunNo:	<b>17094</b>					
Prep Date:		Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491612</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	<b>1402B37-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>S-1</b>	Batch ID:	<b>11962</b>	RunNo:	<b>17094</b>					
Prep Date:	<b>2/28/2014</b>	Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491621</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.049	0.9804	0.01766	80.2	67.4	135			
Toluene	0.83	0.049	0.9804	0.01570	82.6	72.6	135			
Ethylbenzene	0.87	0.049	0.9804	0	88.2	69.4	143			
Xylenes, Total	2.7	0.098	2.941	0.02601	90.0	70.8	144			
Surr: 4-Bromofluorobenzene	1.0		0.9804		106	80	120			

Sample ID	<b>1402B37-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>S-1</b>	Batch ID:	<b>11962</b>	RunNo:	<b>17094</b>					
Prep Date:	<b>2/28/2014</b>	Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491622</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.049	0.9785	0.01766	81.6	67.4	135	1.57	20	
Toluene	0.81	0.049	0.9785	0.01570	81.5	72.6	135	1.50	20	
Ethylbenzene	0.83	0.049	0.9785	0	85.2	69.4	143	3.75	20	
Xylenes, Total	2.6	0.098	2.935	0.02601	86.9	70.8	144	3.63	20	
Surr: 4-Bromofluorobenzene	1.0		0.9785		105	80	120	0	0	

Sample ID	<b>MB-11962</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11962</b>	RunNo:	<b>17086</b>					
Prep Date:	<b>2/28/2014</b>	Analysis Date:	<b>3/4/2014</b>	SeqNo:	<b>491658</b>	Units:	<b>mg/Kg</b>			
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								

### 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#: 1402B37  
 06-Mar-14

**Client:** Animas Environmental Services  
**Project:** Enterprise Trunk 10A

Sample ID <b>MB-11962</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>11962</b>	RunNo: <b>17086</b>								
Prep Date: <b>2/28/2014</b>	Analysis Date: <b>3/4/2014</b>	SeqNo: <b>491658</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		93.0	80	120			

Sample ID <b>LCS-11962</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>11962</b>	RunNo: <b>17086</b>								
Prep Date: <b>2/28/2014</b>	Analysis Date: <b>3/4/2014</b>	SeqNo: <b>491659</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	112	80	120			
Toluene	1.2	0.050	1.000	0	117	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Xylenes, Total	3.4	0.10	3.000	0	115	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	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

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1402B37

RcptNo: 1

Received by/date: AG 02/28/14

Logged By: Lindsay Mangin 2/28/2014 10:00:00 AM *[Signature]*

Completed By: Lindsay Mangin 2/28/2014 2:01:58 PM *[Signature]*

Reviewed By: IO 02/28/14

**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:

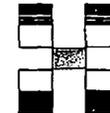
**18. Cooler Information**

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

# Chain-of-Custody Record

Client: Animas Environmental Services  
 Mailing Address: 624 E. Comanche  
Farmington, NM 87401  
 Phone #: 505-564-2281

Project Name: Enterprise Trunk #10A  
 Project #: \_\_\_\_\_  
 Project Manager: H. Woods  
 Sampler: H. Woods  
 On Ice:  Yes  No  
 Sample Temperature: 10



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Project Manager: H. Woods  
 Sampler: H. Woods  
 On Ice:  Yes  No  
 Sample Temperature: 10

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + <del>MTBE</del> + (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / <del>MSB</del> )	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
12/7/14	1412	Soil	S-1	1-4oz Glass	Cold	-001	X		X										
12/7/14	1414	Soil	S-2	1-4oz Glass	Cold	-002	X		X										
12/7/14	1416	Soil	S-3	1-4oz Glass	Cold	-003	X		X										
12/7/14	1418	Soil	S-4	1-4oz Glass	Cold	-004	X		X										
12/7/14	1420	Soil	S-5	1-4oz Glass	Cold	-005	X		X										
12/7/14	1425	Soil	SC-1	1-4oz Glass	Cold	-006	X		X										
12/7/14	1429	Soil	SC-2	1-4oz Glass	Cold	-007	X		X										

Date: 12/7/14 Time: 1654 Relinquished by: Heather M. Woods Received by: Christa Velt Date: 2/27/14 Time: 1654 Remarks:  
 Date: 1/27/14 Time: 1728 Relinquished by: Christa Velt Received by: Shirley Gallegos Date: 02/28/14 Time: 1000

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

May 05, 2014

Heather Woods  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 716-2787  
FAX

RE: Enterprise Trunk 10A

OrderNo.: 1404A72

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/25/2014 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](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:** Animas Environmental Services

**Client Sample ID:** SC-3

**Project:** Enterprise Trunk 10A

**Collection Date:** 4/23/2014 4:15:00 PM

**Lab ID:** 1404A72-001

**Matrix:** SOIL

**Received Date:** 4/25/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/29/2014 10:25:13 AM	12889
Surr: DNOP	87.3	57.9-140		%REC	1	4/29/2014 10:25:13 AM	12889
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/30/2014 2:25:28 PM	12911
Surr: BFB	85.9	74.5-129		%REC	1	4/30/2014 2:25:28 PM	12911

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	
	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	Page 1 of 3
	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#: 1404A72

05-May-14

**Client:** Animas Environmental Services

**Project:** Enterprise Trunk 10A

Sample ID	<b>LCS-12889</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>12889</b>	RunNo:	<b>18255</b>					
Prep Date:	<b>4/28/2014</b>	Analysis Date:	<b>4/30/2014</b>	SeqNo:	<b>528692</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.6	60.8	145			
Surr: DNOP	4.1		5.000		81.9	57.9	140			

Sample ID	<b>MB-12889</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>12889</b>	RunNo:	<b>18255</b>					
Prep Date:	<b>4/28/2014</b>	Analysis Date:	<b>4/30/2014</b>	SeqNo:	<b>528693</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	8.9		10.00		89.2	57.9	140			

Sample ID	<b>MB-12956</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>12956</b>	RunNo:	<b>18327</b>					
Prep Date:	<b>5/1/2014</b>	Analysis Date:	<b>5/1/2014</b>	SeqNo:	<b>529725</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		87.3	57.9	140			

Sample ID	<b>LCS-12956</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>12956</b>	RunNo:	<b>18327</b>					
Prep Date:	<b>5/1/2014</b>	Analysis Date:	<b>5/1/2014</b>	SeqNo:	<b>529726</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.0	57.9	140			

**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#: 1404A72

05-May-14

Client: Animas Environmental Services

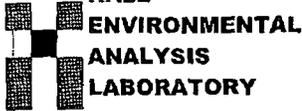
Project: Enterprise Trunk 10A

Sample ID	<b>MB-12911</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>12911</b>	RunNo:	<b>18302</b>					
Prep Date:	<b>4/28/2014</b>	Analysis Date:	<b>4/30/2014</b>	SeqNo:	<b>529105</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	850		1000		84.8	74.5	129			

Sample ID	<b>LCS-12911</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>12911</b>	RunNo:	<b>18302</b>					
Prep Date:	<b>4/28/2014</b>	Analysis Date:	<b>4/30/2014</b>	SeqNo:	<b>529106</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.1	71.7	134			
Surr: BFB	940		1000		93.8	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



# Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: **1404A72** RptNo: **1**

Received by/date: *[Signature]* **04/25/14**  
 Logged By: **Lindsay Mangin** 4/25/2014 10:00:00 AM *[Signature]*  
 Completed By: **Lindsay Mangin** 4/25/2014 10:40:45 AM *[Signature]*  
 Reviewed By: *[Signature]* **04/25/14**

### 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  # of preserved bottles checked for pH:  (<2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No  Adjusted?
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No  Checked by:

### Special Handling (if applicable)

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

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

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp.°C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Not Present			



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 3A Loop	Facility Type: Natural Gas Gathering Line
Surface Owner: NAPI/Navajo Tribal	Mineral Owner: NAPI/Navajo Tribal
API No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	21	28N	12W	35		853		San Juan

Latitude 36.640560 Longitude -108.110925

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: <b>Unknown</b>	Volume Recovered: <b>Unknown</b>
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: <b>6/10/2014 @ 11:00 a.m.</b>	Date and Hour of Discovery: <b>6/10/2014 @ 4:30 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? Courtesy Notification to NMOCD - Cory Smith, NAPI - Mike Freeman, Eric Trevizo, Steve Austin - NNEPA	
By Whom? Thomas Long	Date and Hour <b>6/13/2014 @ 3:43 p.m.</b>	<b>OIL CONS. DIV DIST. 3</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

**JUN 27 2014**

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: During a line patrol in the corridor of Trunk 3A, Lateral 6B-14 and Trunk 3A loop, Enterprise technicians were dispatched to verify possible leak. Technicians used gas detector with limited results due to wind. At that time technicians isolated the Trunk 3A Loop pipeline and applied lock out tag out and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. The pipeline was depressurized and excavation and repairs of pipeline began June 11, 2014.

Describe Area Affected and Cleanup Action Taken.\*: Technicians isolated the Trunk 3A Loop pipeline and applied LOTO and monitored pressure loss. A minor leak was confirmed to be on Trunk 3A Loop. There were no environmental surface impacts. Repairs and remediation of the release began of June 11, 2014. A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.

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 Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: <u>7/7/14</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>6-23-2014</u> Phone: (713)381-6684		

\* Attach Additional Sheets If Necessary

#NCS 1418831998