

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

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

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

Incident ID	NCS1915541940
District RP	
Facility ID	
Application ID	

## Release Notification

**NOT APPROVED**

### Responsible Party

Responsible Party: <b>Enterprise Field Services, LLC</b>	OGRID: <b>151618</b>
Contact Name: <b>Thomas Long</b>	Contact Telephone: <b>505-599-2286</b>
Contact email: <b>tjlong@eprod.com</b>	Incident # (assigned by OCD): <b>NCS19155401940</b>
Contact mailing address: <b>614 Reilly Ave, Farmington, NM 87401</b>	<b>NCS1915541940</b>

### Location of Release Source

Latitude **36.333375** Longitude **-107.213957** (NAD 83 in decimal degrees to 5 decimal places)

Site Name <b>Lateral L-11 Valve</b>	Site Type <b>Natural Gas Gathering Pipeline</b>
Date Release Discovered: <b>5/13/2019</b>	Serial Number (if applicable): <b>NA</b>

Unit Letter	Section	Township	Range	County
<b>E</b>	<b>1</b>	<b>24N</b>	<b>3W</b>	<b>Rio Arriba</b>

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): <b>3-5 BBLS</b>	Volume Recovered (bbls): <b>None</b>
<input type="checkbox"/> Natural Gas	Volume Released (Mcf):	Volume Recovered (Mcf):
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

**Cause of Release:** On May 13, 2019, Enterprise responded to a possible release of condensate on the Lateral L-11 pipeline valve. Enterprise dispatched a technician and confirmed the release. The pipeline was isolated, depressurized, locked out and tagged out. An area of approximately 12 feet long by two feet wide was affected by the release fluids. Enterprise began the remediation on May 31, 2019, and determined the release was reportable per NMOCD regulation on June 3, 2019, due to the volume of impacted subsurface soil. Remediation was completed on June 4, 2019. The final excavation dimensions measured approximately 26 feet long by 12 feet wide by ranging from one (1) to five (5) feet deep. Approximately 28 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party closure report is included with this "Final." C-141.

Form C-141

State of New Mexico  
Oil Conservation Division

Page 2

Incident ID	
District RP	
Facility ID	
Application ID	

### Closure

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

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

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jon E. Fields Title: Director, Environmental  
 Signature:  Date: 10/31/19  
 email: jefields@eprod.com Telephone: (713) 381-6684

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

**NOT APPROVED**

**Enterprise Products, LLC**

**Lateral L-11 Valve Release:  
Release Assessment and Final Remediation Report**

Latitude 36.333375°, Longitude -107.213957°  
Section 1, T24N, R4W  
Rio Arriba County, New Mexico

**August 21, 2019**



**Submitted To:**  
Enterprise Products  
Field Environmental-San Juan Basin  
614 Reilly Avenue  
Farmington, NM 87401

**Submitted By:**  
Souder, Miller & Associates  
401 West Broadway  
Farmington, NM 87401  
(505) 325-7535



Lateral L-11 Valve Release  
Final Remediation Report  
Rio Arriba County, New Mexico

August 21, 2019  
SMA #5127965 BG14

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Figure 2: Site and Sample Location Map

#### Tables:

Table 2: NMOCD Closure Criteria Justification

Table 3: Summary of Sample Results

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Appendix B: NMOSE Wells Report

Appendix C: Field Notes

Appendix D: Site Photography

Appendix E: Laboratory Analytical Reports

Appendix F: Executed C-138 Form

Lateral L-11 Valve Release  
Final Remediation Report  
Rio Arriba County, New Mexico

August 21, 2019  
SMA #5127965 BG14

## 1.0 Executive Summary

On May 15, 2019, Souder, Miller & Associates (SMA) was contacted by an Enterprise field representative regarding a potential hydrocarbon release associated with the Lateral L-11 valve.

From May 31 to June 4, 2019, SMA oversaw excavation of contaminated soils from the release site. The New Mexico Oil Conservation Division (NMOCD) approved confirmation sampling of the walls and base of the final excavation. Final laboratory results for the walls and base demonstrated hydrocarbon concentrations below NMOCD closure criteria. The excavation was approved for backfill with clean soil.

The table below summarizes information about the remediation activities.

<b>Table 1: Release Information and Closure Criteria</b>			
Name	Lateral L-11 Valve	Company	Enterprise Field Services, LLC
API Number	NA	Location	36.333375 -107.21395
Date of Release	May 13, 2019		
Land Owner	Jicarilla Apache Tribe	Reported To	NMOCD
Source of Release	Pipeline valve		
Released Volume	3-5 BBLS	Released Material	Condensate
Recovered Volume	0 BBLS	Net Release	3-5 BBLS
NMOCD Closure Criteria	<50 to groundwater		
SMA Response Dates	May 31 and June 4, 2019		

## 2.0 Introduction

On May 13, 2019, surface staining was discovered at a valve associated with the Lateral L-11 pipeline. Initial response activities were conducted by Enterprise, and included

source elimination. Figure 1 illustrates the vicinity and site location, Figure 2 illustrates the release location.

### 3.0 Site Ranking and Land Jurisdiction

The Lateral L-11 Valve release is located nine (9) miles northwest of Lindrith, New Mexico on Jicarilla Tribal land at an elevation of approximately 6,900 feet above mean sea level (amsl).

Based upon groundwater well data (Appendix B), depth to groundwater in the area is estimated to be 36 feet below grade surface (bgs). There are two (2) known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database ([https://gis.ose.state.nm.us/gisapps/ose\\_pod\\_locations/](https://gis.ose.state.nm.us/gisapps/ose_pod_locations/); accessed 5/30/2019). The nearest significant watercourse is a Cañada Larga tributary located approximately 867 feet to the south.

The applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

### 4.0 Remediation Activities

Between May 31 and June 4, 2019, SMA was on site to guide the excavation of contaminated soil. SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp and a Dexsil® PetroFLAG TPH Analyzer. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met.

On May 31, 2019 and June 4, 2019, SMA conducted confirmation sampling of the excavation, which measured, at the widest points, approximately 26 feet by 12 feet and ranged in depth from 1 foot to 5 feet in depth.

Confirmation samples were comprised of five-point composites of the excavated area. The base of the excavation measured 197 ft<sup>2</sup>. The sidewalls ranged in depth from 1 to 5 feet with a total surface area measurement of 167 ft<sup>2</sup>. Sample SC-1 was collected from the base of the excavation and sample SC-2 was collected from the sidewalls of the excavation. Analytical results demonstrated that SC-2, a side wall composite sample, exceeded Closure Criteria and was therefore further excavated and resampled (SC-3).

Lateral L-11 Valve Release  
Final Remediation Report  
Rio Arriba County, New Mexico

August 21, 2019  
SMA #5127965 BG14

A total of three (3) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix E).

Figure 3 shows the extent of the excavation and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix E.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. Twenty-eight (28) cubic yards of contaminated soil was transported and disposed of at Envirotech Landfarm, Bloomfield, New Mexico, an NMOCD permitted disposal facility.

**5.0 Closure and Limitations**

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the San Juan Basin in New Mexico.

If there are any questions regarding this report, please contact either Ashley Maxwell or Shawna Chubbuck at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES

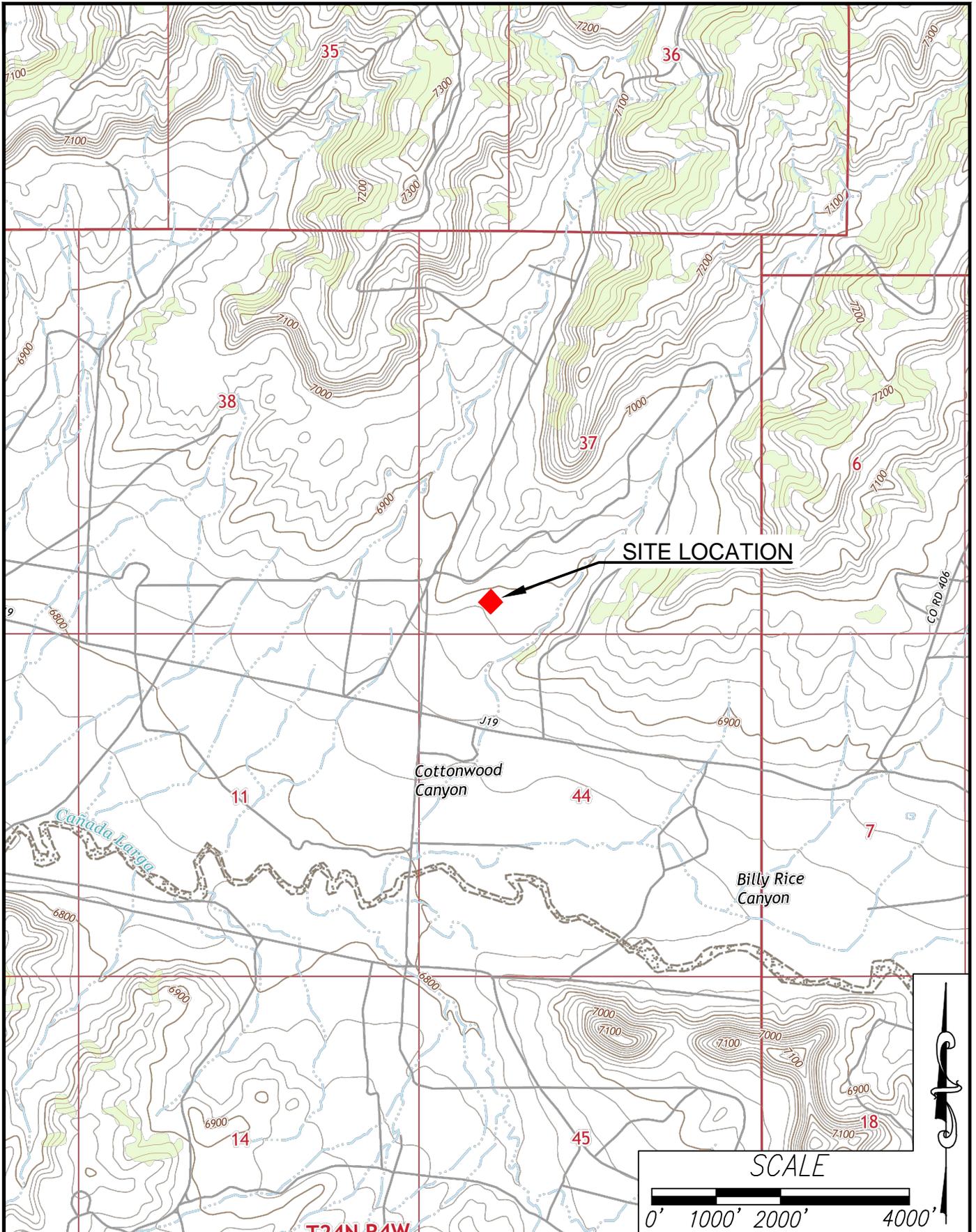
Reviewed by:



Ashley Maxwell  
Project Scientist

Shawna Chubbuck  
Senior Scientist

# FIGURES



**SMA**  
*Engineering  
 Environmental  
 Surveying*

**Souder, Miller & Associates**  
 401 West Broadway Avenue  
 Farmington, NM 87401-5907  
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045  
 www.soudermiller.com  
 Serving the Southwest & Rocky Mountains

ENTERPRISE FARMINGTON, NEW MEXICO

**VICINITY MAP**  
**LATERAL L-11 VALVE RELEASE**  
**SECTION 1, T24N, R4W**

RIO ARRIBA COUNTY

Designed AM	Drawn DJB	Checked SC
Date: July 2019		
Scale: Horiz: 1" = 2000'		
Vert: NA		
Project No: 5127965		
<b>Figure 1</b>		

© Copyright 2019 Souder, Miller & Associates - All Rights Reserved

W:\Enterprise\_MSA\_2019\16127965\BGA4 - Trunk\T16127965\Trunk\T16127965\Release.dwg, DIB, 7/24/2019 2:38 PM



THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS SIGNED, SEALED AND DATED

Date: July 2019

Scale: Horiz: 1"=100'  
Vert: N/A

Project No: 5127965

Figure 2

Designed AM	Drawn DJB	Checked SC
----------------	--------------	---------------

**SMA**  
Engineering  
Environmental  
Surveying

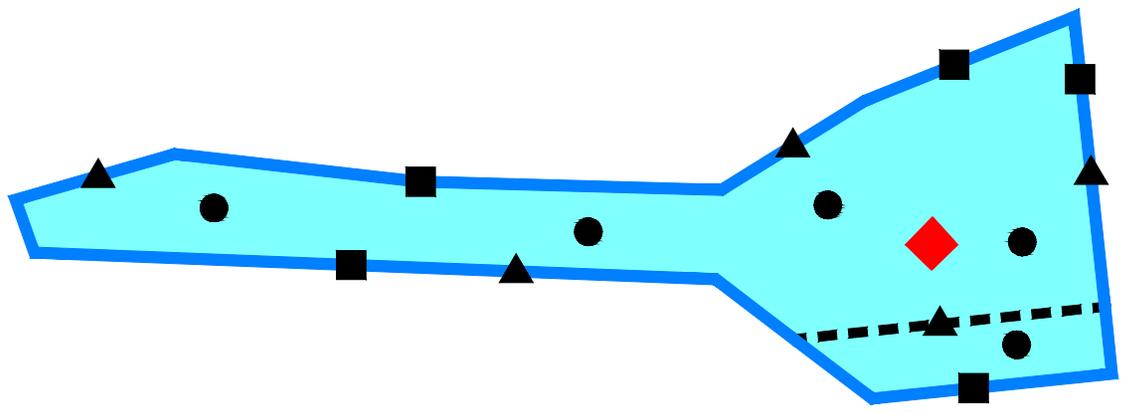
**SOUDER, MILLER & ASSOCIATES**  
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Serving the Southwest & Rocky Mountains  
www.soudermiller.com

ENTERPRISE

FARMINGTON, NEW MEXICO

**SITE MAP**  
**LATERAL L-11 VALVE RELEASE**  
**SECTION 1, T24N, R4W**

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**LEGEND**

- FORMER EXTENT OF EXCAVATION
- ◆ RELEASE LOCATION
- SC-1 (BASE COMPOSITE SAMPLE)
- ▲ SC-2 (SIDE WALL COMPOSITE SAMPLE)
- SC-3 (SIDE WALL COMPOSITE SAMPLE)

SCALE



Sample ID	Sample Date	Sample Location	Depth (feet bgs)	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10				100	600
SC-1	5/31/2019	Base Composite	1-5	<0.185	<0.021	<4.1	20	<49	20	79
SC-2*	5/31/2019	Sidewalls Composite	1-5	<0.245	<0.027	<5.4	51	61	112	310
SC-3	6/4/2019	Sidewalls Composite	1-5	<0.228	<0.026	<5.1	38	<48	38	65

\* = Removed by excavation

Figure 3  
 Scale: 1"=5'  
 Project No: 5127965  
 Date: August 2019  
 THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS SIGNED, SEALED AND DATED.

**SOUDER, MILLER & ASSOCIATES**  
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 Farmington, NM 87401-5907  
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*Engineering  
 Environmental  
 Surveying*

ENTERPRISE  
 FARMINGTON, NEW MEXICO

**SAMPLE LOCATION MAP  
 LATERAL L-11 VALVE RELEASE  
 SECTION 1, T24N, R4W**

W:\Enterprise\USA\_2019\5127965\B014 - Trunk 11\5127965\Trunk 11\_Riser Release.dwg, Dwg, 02/02/2019 10:27 AM

# TABLES

Table 2:  
NMOCD Closure Criteria

Enterprise Field Services, LLC  
Lateral L-11 Valve Release

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	36	Jicarilla 126 1 Pit Registration
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	5,505	NMOSE
Horizontal Distance to Nearest Significant Watercourse (ft)	867	Figure 1

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS	X	600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	yes or no	if yes, then				
<300' from continuously flowing watercourse or other significant watercourse?	No	600	100	1000	50	10
<200' from lakebed, sinkhole or playa lake?	No					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No					
<1000' from fresh water well or spring?	No					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	No					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	No					
<100' from wetland?	No					
within area overlying a subsurface mine	No					
within an unstable area?	No					
within a 100-year floodplain?	No					



Table 3:  
Summary of Sample Results

Enterprise Field Services, LLC  
Lateral L-11 Valve Release

Sample ID	Sample Date	Sample Location	Depth (feet bgs)	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10				100	600
SC-1	5/31/2019	Base Composite	1-5	<0.185	<0.021	<4.1	20	<49	20	79
SC-2*	5/31/2019	Sidewalls Composite	1-5	<0.245	<0.027	<5.4	51	61	112	310
SC-3	6/4/2019	Sidewalls Composite	1-5	<0.228	<0.026	<5.1	38	<48	38	65

"-" = Not Analyzed

\* = Removed by excavation



# APPENDIX A

## FORM C-141

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
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1220 South St. Francis Dr.  
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Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
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## Release Notification

### Responsible Party

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

### Location of Release Source

Latitude **36.333375** Longitude **-107.213957** NAD 83 in decimal degrees to 5 decimal places

Site Name <b>Lateral L-11 Valve</b>	Site Type <b>Natural Gas Gathering Pipeline Valve</b>
Date Release Discovered: <b>5/13/2019</b>	Serial # (if applicable):

Unit Letter	Section	Township	Range	County
<b>E</b>	<b>1</b>	<b>24N</b>	<b>3W</b>	<b>San Juan</b>

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): <b>Estimated 3-5 BBLs</b>	Volume Recovered (bbls): <b>None</b>
<input type="checkbox"/> Natural Gas	Volume Released (Mcf):	Volume Recovered (Mcf):
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

**Cause of Release:** On May 13, 2019, Enterprise responded to a possible release of condensate on the Lateral L-11 pipeline valve. Enterprise dispatched a technician and confirmed the release. The pipeline was isolated, depressurized, locked out and tagged out. An area of approximately 12 feet long by two feet wide was affected by the release fluids. Enterprise began the remediation on May 31, 2019, and determined the release was reportable per NMOCD regulation on June 3, 2019, due to the volume of impacted subsurface soil. A third party closure report will be submitted with the "Final C-141."


<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p>	

### Initial Response

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

- The source of the release has been stopped.
- The impacted area has been secured to protect human health and the environment.
- Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why: Berms and dikes were installed to prevent migration of the release potable water, but some standing water was left onsite, as that a road has to be built in order for equipment to access the release location and remove the water.

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

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

Printed Name: Jon E. Fields Title: Director, Field Environmental  
 Signature:  Date: 6-6-19  
 email: jefields@eprod.com Telephone: 713-381-6684

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

# APPENDIX B

## NMOSE WELLS REPORT



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">SJ 02516</a>	SJ	RA	1	3	1	06	24N	03W	302693	4024121*		1678	1000	650	350
<a href="#">SJ 02516 DCL</a>	O	RA	1	3	1	06	24N	03W	302693	4024121*		1678	1000	650	350

Average Depth to Water: **650 feet**  
 Minimum Depth: **650 feet**  
 Maximum Depth: **650 feet**

**Record Count:** 2

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 301294.58

**Northing (Y):** 4023192.5

**Radius:** 3200

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

# APPENDIX C

# FIELD NOTES

Field Screening Form								
Location Name				Date				
Trunk 11L				5/31/19				
Location Name	Description	Depth (Feet BGS)	Time Collected	PID Reading (ppm)	Time Screened	PetroFLAG Reading	Time Screened	
SC1		1.5	9:14	5269	9:28	EEEE	9:34	
SC1	resample	2.5	9:37	2253	9:50	1296	9:54	
SC1	resample	3.5	<hr/>					
SC2	Length of natural drainage source at riser SW	1-4.5	10:01	372.1	10:23	780	10:27	
SC3	Length of base	4.5	10:03	328.3	10:23	330	10:27	
SC4	sidewalk at source	1-4.5	10:44	394.5	10:47	497	11:04	
SC5	at source SW	4.5	10:45	336.2	10:47	294	11:05	
SC-6	Base along length	5	14:45	381.6	15:16	252	15:15	
SC-7		1-5	15:04	289.4	15:16	187	15:20	
Notes:								



Field Screening Form							
Location Name				Date			
Trunk III				6/4/19			
Location Name	Description	Depth (Feet BGS)	Time Collected	PID Reading (ppm)	Time Screened	PetroFLAG Reading	Time Screened
SC1	W wall	1-5	8:24	222.2	9:06	149	8:55
SC2	N wall	1-5	8:25	267.4	9:06	267	8:55
SC3	E wall	1-5	8:26	106.4	9:06	889	8:55
SC4	E wall	1-5	9:04	270.0	9:27	270	9:25
SC5	sidewall composite	1-5	9:19	154.1	9:29	107	9:38
Notes:							



# APPENDIX D

## SITE PHOTOGRAPHY

### Site Photographs Lateral L-11 Valve Release



Figure 1. View of surface stained area prior to excavation.



Figure 2. View facing north of final excavation.

# APPENDIX E

## LABORATORY ANALYTICAL REPORTS



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

June 05, 2019

Ashley Maxwell

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX: (505) 327-1496

RE: Trunk 11L

OrderNo.: 1906005

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/1/2019 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 #NM0901

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Analytical Report**

Lab Order **1906005**

Date Reported: **6/5/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Souder, Miller and Associates

**Client Sample ID:** SC2 Sidewall

**Project:** Trunk 11L

**Collection Date:** 5/31/2019 2:45:00 PM

**Lab ID:** 1906005-001

**Matrix:** MEOH (SOIL)

**Received Date:** 6/1/2019 8:30:00 AM

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	310	60		mg/Kg	20	6/3/2019 1:22:53 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	51	10		mg/Kg	1	6/3/2019 10:11:28 AM	45319
Motor Oil Range Organics (MRO)	61	50		mg/Kg	1	6/3/2019 10:11:28 AM	45319
Surr: DNOP	103	70-130		%Rec	1	6/3/2019 10:11:28 AM	45319
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	6/3/2019 12:03:46 PM	R60347
Surr: BFB	95.8	73.8-119		%Rec	1	6/3/2019 12:03:46 PM	R60347
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.027		mg/Kg	1	6/3/2019 12:03:46 PM	B60347
Toluene	ND	0.054		mg/Kg	1	6/3/2019 12:03:46 PM	B60347
Ethylbenzene	ND	0.054		mg/Kg	1	6/3/2019 12:03:46 PM	B60347
Xylenes, Total	ND	0.11		mg/Kg	1	6/3/2019 12:03:46 PM	B60347
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	6/3/2019 12:03:46 PM	B60347

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1906005**

Date Reported: **6/5/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Souder, Miller and Associates

**Client Sample ID:** SC1 Base

**Project:** Trunk 11L

**Collection Date:** 5/31/2019 3:04:00 PM

**Lab ID:** 1906005-002

**Matrix:** MEOH (SOIL)

**Received Date:** 6/1/2019 8:30:00 AM

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	79	59		mg/Kg	20	6/3/2019 1:35:18 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	20	9.7		mg/Kg	1	6/3/2019 10:33:23 AM	45319
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/3/2019 10:33:23 AM	45319
Surr: DNOP	99.5	70-130		%Rec	1	6/3/2019 10:33:23 AM	45319
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	6/3/2019 12:27:22 PM	R60347
Surr: BFB	106	73.8-119		%Rec	1	6/3/2019 12:27:22 PM	R60347
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	6/3/2019 12:27:22 PM	B60347
Toluene	ND	0.041		mg/Kg	1	6/3/2019 12:27:22 PM	B60347
Ethylbenzene	ND	0.041		mg/Kg	1	6/3/2019 12:27:22 PM	B60347
Xylenes, Total	ND	0.082		mg/Kg	1	6/3/2019 12:27:22 PM	B60347
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	6/3/2019 12:27:22 PM	B60347

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1906005**

05-Jun-19

**Client:** Souder, Miller and Associates**Project:** Trunk 11L

Sample ID: <b>MB-45328</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45328</b>	RunNo: <b>60349</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041072</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-45328</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45328</b>	RunNo: <b>60349</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041073</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.3	90	110			

**Qualifiers:**

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

**QC SUMMARY REPORT**WO#: **1906005****Hall Environmental Analysis Laboratory, Inc.**

05-Jun-19

**Client:** Souder, Miller and Associates**Project:** Trunk 11L

Sample ID: <b>LCS-45319</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45319</b>	RunNo: <b>60335</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2039825</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	63.9	124			
Surr: DNOP	4.4		5.000		87.0	70	130			

Sample ID: <b>MB-45319</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45319</b>	RunNo: <b>60335</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2039826</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								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		93.5	70	130			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906005  
05-Jun-19

**Client:** Souder, Miller and Associates  
**Project:** Trunk 11L

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>R60347</b>	RunNo: <b>60347</b>								
Prep Date:	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041224</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	96.2	80.1	123			
Surr: BFB	1100		1000		106	73.8	119			

Sample ID: <b>LCS-45303</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45303</b>	RunNo: <b>60347</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041225</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		109	73.8	119			

Sample ID: <b>MB-45303</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45303</b>	RunNo: <b>60347</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041226</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		98.8	73.8	119			

Sample ID: <b>RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R60347</b>	RunNo: <b>60347</b>								
Prep Date:	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041227</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		93.7	73.8	119			

**Qualifiers:**

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

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1906005**

05-Jun-19

**Client:** Souder, Miller and Associates**Project:** Trunk 11L

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>B60347</b>	RunNo: <b>60347</b>								
Prep Date:	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041231</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.6	80	120			
Toluene	0.94	0.050	1.000	0	94.1	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID: <b>LCS-45303</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45303</b>	RunNo: <b>60347</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041246</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		108	80	120			

Sample ID: <b>MB-45303</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45303</b>	RunNo: <b>60347</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041247</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		110	80	120			

Sample ID: <b>RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>B60347</b>	RunNo: <b>60347</b>								
Prep Date:	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041248</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

**Qualifiers:**

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



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

Sample Log-In Check List

Client Name: SMA-FARM Work Order Number: 1906005 RcptNo: 1

Received By: Desiree Dominguez 6/1/2019 8:30:00 AM
Completed By: Desiree Dominguez 6/1/2019 9:21:03 AM
Reviewed By: YG 6/1/19

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

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

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: DAD 6/1/19

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: Date:
By Whom: Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 2.3, Good, Not Present, , ,





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

June 07, 2019

Ashley Maxwell  
Souder, Miller and Associates  
401 W. Broadway  
Farmington, NM 87401  
TEL: (505) 325-5667  
FAX (505) 327-1496

RE: Trunk 11L

OrderNo.: 1906144

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/5/2019 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 #NM0901

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

## Analytical Report

Lab Order 1906144

Date Reported: 6/7/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC3

Project: Trunk 11L

Collection Date: 6/4/2019 9:19:00 AM

Lab ID: 1906144-001

Matrix: MEOH (SOIL)

Received Date: 6/5/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	65	60		mg/Kg	20	6/5/2019 11:08:23 AM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	38	9.6		mg/Kg	1	6/5/2019 10:15:48 AM	45382
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/5/2019 10:15:48 AM	45382
Surr: DNOP	116	70-130		%Rec	1	6/5/2019 10:15:48 AM	45382
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	6/5/2019 9:37:45 AM	GS60413
Surr: BFB	88.3	73.8-119		%Rec	1	6/5/2019 9:37:45 AM	GS60413
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.026		mg/Kg	1	6/5/2019 9:37:45 AM	BS60413
Toluene	ND	0.051		mg/Kg	1	6/5/2019 9:37:45 AM	BS60413
Ethylbenzene	ND	0.051		mg/Kg	1	6/5/2019 9:37:45 AM	BS60413
Xylenes, Total	ND	0.10		mg/Kg	1	6/5/2019 9:37:45 AM	BS60413
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	6/5/2019 9:37:45 AM	BS60413

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

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

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1906144****07-Jun-19****Client:** Souder, Miller and Associates**Project:** Trunk 11L

Sample ID: <b>MB-45384</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45384</b>	RunNo: <b>60433</b>								
Prep Date: <b>6/5/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043901</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-45384</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45384</b>	RunNo: <b>60433</b>								
Prep Date: <b>6/5/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043902</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

**Qualifiers:**

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

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

WO#: 1906144

07-Jun-19

**Client:** Souder, Miller and Associates**Project:** Trunk 11L

Sample ID: <b>RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>GS60413</b>	RunNo: <b>60413</b>								
Prep Date:	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043525</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	910		1000		91.2	73.8	119			

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>GS60413</b>	RunNo: <b>60413</b>								
Prep Date:	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043526</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	80.1	123			
Surr: BFB	1200		1000		115	73.8	119			

Sample ID: <b>1906144-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>SC3</b>	Batch ID: <b>GS60413</b>	RunNo: <b>60413</b>								
Prep Date:	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043527</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.1	25.72	0	96.4	69.1	142			
Surr: BFB	1100		1029		103	73.8	119			

Sample ID: <b>1906144-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>SC3</b>	Batch ID: <b>GS60413</b>	RunNo: <b>60413</b>								
Prep Date:	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043528</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	5.1	25.72	0	91.4	69.1	142	5.37	20	
Surr: BFB	1000		1029		101	73.8	119	0	0	

Sample ID: <b>MB-45359</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45359</b>	RunNo: <b>60413</b>								
Prep Date: <b>6/4/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043546</b>			Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		92.8	73.8	119			

Sample ID: <b>LCS-45359</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45359</b>	RunNo: <b>60413</b>								
Prep Date: <b>6/4/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043547</b>			Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	73.8	119			

**Qualifiers:**

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

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

WO#: 1906144

07-Jun-19

**Client:** Souder, Miller and Associates**Project:** Trunk 11L

Sample ID: <b>RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>BS60413</b>	RunNo: <b>60413</b>								
Prep Date:	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043568</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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>BS60413</b>	RunNo: <b>60413</b>								
Prep Date:	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043569</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.7	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID: <b>MB-45359</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45359</b>	RunNo: <b>60413</b>								
Prep Date: <b>6/4/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043588</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		108	80	120			

Sample ID: <b>LCS-45359</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45359</b>	RunNo: <b>60413</b>								
Prep Date: <b>6/4/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043589</b>			Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		121	80	120			S

**Qualifiers:**

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



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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1906144

RcptNo: 1

Received By: Jevon Campisi

6/5/2019 8:00:00 AM

Jevon Campisi

Completed By: Leah Baca

6/5/2019 8:43:42 AM

Leah Baca

Reviewed By: DAD 6/5/19

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

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

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: YG 6/5/19

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: [ ] Date [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

16. Additional remarks:

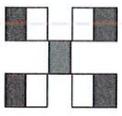
17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Contains 2 rows of data.

### Chain-of-Custody Record

Client: SMA  
 Mailing Address: 401 W Broadway  
 Farmington NM 87401  
 Phone #: 505 325 7835  
 email or Fax#: Ashley.maxwell  
 QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation:  Az Compliance  
 NELAC  Other  
 EDD (Type)

Turn-Around Time: Same Day  
 Standard  Rush  
 Project Name: Trunk 11L  
 Project #:   
 Project Manager: Ashley Maxwell  
 Sampler: AM  
 On Ice:  Yes  No  
 # of Coolers: 2  
 Cooler Temp (including CF): 2.8 / 2.1 / + 0.3 CF  
 Container Type and # : 4oz  
 Preservative Type : = 3.1% / 2.4%  
 HEAL No. : 1906144  
 -001



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com  
 4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

**Analysis Request**

TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	X 300.0 (Chloride)

Date: 6/4/19 1637 Relinquished by: [Signature]  
 Date: 6/4/19 1840 Relinquished by: [Signature]  
 Received by: [Signature] Via: Courier Date: 6-5-19 8:00  
 Date: 4/4/19 1632 Via: [Signature] Date: 4/4/19 1632  
 Remarks: Invoice Enterprise de Tom Lon 8

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.

# APPENDIX F

## EXECUTED C-138 FORM

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

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

97057-1010 Form C-138  
Revised 08/01/11  
\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

**REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE**

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

2. **Originating Site:**  
Lateral 11-L Valve

3. **Location of Material (Street Address, City, State or ULSTR):**  
Section 1 T24N R3W; 36.333375,-107.213957 May/June 2019

4. **Source and Description of Waste: Hydrocarbon impacted soil/sludge.**  
Source: Remediation activities associated with a natural gas pipeline leak.  
Description: Hydrocarbon/Condensate impacted soil/sludge associated natural gas pipeline release.  
Estimated Volume (10) yd<sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) 28 (yd<sup>3</sup>) / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**  
I, Thomas Long <sup>Thomas Long</sup>, representative or authorized agent for Enterprise Products Operating do hereby  
Generator Signature  
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988  
regulatory determination, the above described waste is: (Check the appropriate classification)  
 RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-  
exempt waste. Operator Use Only: Waste Acceptance Frequency  Monthly  Weekly  Per Load  
 RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by  
characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261,  
subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check  
the appropriate items)  
 MSDS Information  RCRA Hazardous Waste Analysis  Process Knowledge  Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**  
I, Thomas Long <sup>Thomas Long</sup> 5-31-19, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete  
Generator Signature  
the required testing/sign the Generator Waste Testing Certification.  
I, Greg Crabtree, representative for Envirotech, Inc. do hereby certify that  
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples  
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results  
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of  
19.15.36 NMAC.

5. **Transporter: TBD** OFT, Baileys Welding

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: [Signature]

TITLE: Enviro Manager

TELEPHONE NO.:

DATE: 5/31/19

Surface Waste Management Facility Authorized Agent

505-632-0615