

# Trinity Oilfield Services & Rentals, LLC

## Environmental Site Summary & Spill Remediation Proposal



Company: OXY USA, Inc. Address: P.O. Box 4294, Houston, TX 77210 Telephone #: (575) 390-2828

Site Name: Federal 12 #14H NMOCD Reference#: 2RP-4488

Surface Owner: US BLM Mineral Owner: US BLM

Unit Letter: P (SE/SE) Section: 12 Township: 22S Range: 31E County: Eddy GPS Coordinates: 32.399528 N -103.723766 W

Depth to Ground Water: 115' Distance to Surface Water Body:  <200'  200' - 1,000'  >1,000'

Wellhead Protection Area: <1,000' from Water Source or <200' from Domestic Water Source?  Y  N

NMOCD Ranking Score: 0 Soil Remediation Levels (mg/kg): Benzene: 10 BTEX: 50 TPH:  100 Chloride:  250  
 1,000  600  
 5,000

Date/Time of Release: 11/10/2017 Type of Release: Produced Water Approximate Volume of Release: See Below

### Background Information:

On November 10, 2017, OXY USA, Inc. (OXY), discovered a release at the Federal 12 #14H tank battery. A gasket seal on the heater treater failed, resulting in the release of approximately 7 barrel (bbls) of produced water and 1 bbl of crude oil, with no recovery. The released fluid and overspray affected an area of the caliche pad measuring approximately 21,220 square feet. An area of the pasture adjacent to the pad measuring approximately 1,245 square feet was also affected. During initial response activities, the gasket was repaired, and the on-site heater treater, pump jack, and other facilities affected by the overspray were pressure-washed and steam-cleaned.

The release was immediately reported to the New Mexico Oil Conservation Division's (NMOCD) Artesia District Office and the United States Department of the Interior - Bureau of Land Management's (BLM) Carlsbad District Office. The NMOCD "Release Notification & Corrective Action" form (C-141) is provided as Appendix A. General photographs of the release site are provided in Appendix C. A "Site Location Map" is provided as Figure 1.

### Summary of Field Activities:

On December 19 and 20, 2017, a hand-auger was utilized to collect a series of soil samples from twelve (12) locations (SP-1 through SP-12) in the visibly stained area to investigate the extent of impacted soil. The auger holes were advanced to total depths ranging from approximately 6 inches (SP-1, SP-2, SP-5, SP-6, SP-7, SP-9, SP-10, SP-11, and SP-12) to 2 feet (SP-8) below ground surface (bgs). Soil samples were collected at 6-inch to 1-foot vertical intervals and field-screened with a chloride test kit. Confirmation samples were submitted to Xenco Laboratories in Midland, Texas, for analysis of chloride, total petroleum hydrocarbons (TPH), and/or benzene, toluene, ethylbenzene, and total xylene (BTEX) concentrations using Environmental Protection Agency (EPA) Methods 300, SW 846-8015 Mod, and SW 846-8021B, respectively. Laboratory analytical results and field-screens indicated that the release and/or overspray may have commingled with a historical release (or releases), however, vertical delineation had been achieved.

Locations of the auger holes are depicted in Figure 2, "Sample Location Map". Laboratory analytical results are summarized in Table 1, and analytical reports are provided in Appendix D. Chloride field test results are summarized in Table 2.

### Proposed Activities:

OXY proposes to conduct the following activities to progress the Federal 12 #14H release site to an NMOCD- and BLM-approved closure:

- All excavated soil will be stockpiled on-site on 6-mil plastic, pending transfer to Lea Land, Inc. (NMOCD Permit #WM-01-035), for disposal.
- Excavation in some impacted areas may be hindered by the presence of heater treaters, pipes, pumps, electrical lines, etc.

# Trinity Oilfield Services & Rentals, LLC

## Environmental Site Summary & Spill Remediation Proposal



### Proposed Activities (cont.):

- The excavation will be advanced horizontally until field test readings and/or visual/olfactory senses suggest contaminants of concern are below the NMOCD "Recommended Remediation Action Levels" (RRALs) established for the site (or to the extent practicable). The excavation will be advanced vertically as follows:
  - Maximum depth of 6 inches bgs in the areas represented by auger holes SP-1, SP-2, SP-5, SP-6, SP-7, SP-9, SP-10, SP-11, and SP-12.
  - Maximum depth of 1 foot bgs in the areas represented by auger holes SP-3 and SP-4 and immediately adjacent to the on-site pump jack.
  - Maximum depth of 2 feet bgs in the areas represented by auger hole SP-8.
- Soil samples will be collected at approximate 50-foot horizontal intervals from the sidewalls of the excavation (at floor level) and submitted to Xenco Laboratories for confirmatory analyses of chloride, TPH, and/or BTEX concentrations using the EPA analytical methods listed in the "Summary of Field Activities" above.
- Following remediation activities, the excavation will be backfilled with non-impacted material, compacted, and contoured to fit the surrounding topography.
- Disturbed areas in the adjacent pasture will be seeded with a BLM-approved seed mix at a time conducive to germination.
- Upon completion of the aforementioned corrective actions, a "Remediation Summary & Closure Request" will be submitted to the NMOCD and BLM, documenting remediation activities and results of confirmation soil samples.

### Enclosures:

Figure 1: Site Location Map

Figure 2: Sample Location Map

Table 1: Concentrations of Benzene, BTEX, TPH & Chloride in Soil

Table 2: Chloride Field Tests

Appendix A: Release Notification & Corrective Action (Form C-141)

Appendix B: Depth-to-Groundwater Data

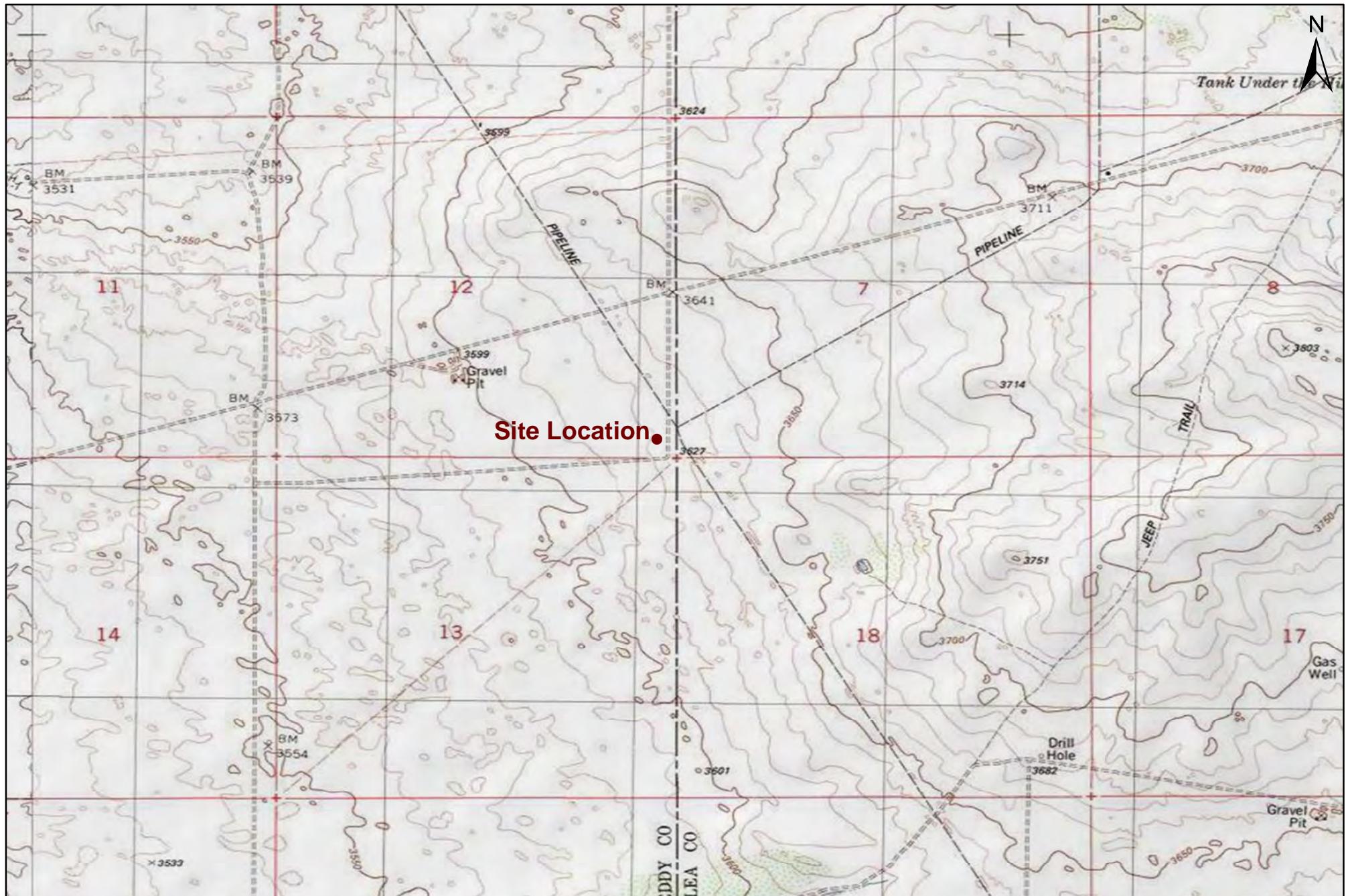
Appendix C: Photographs

Appendix D: Laboratory Analytical Results



3/29/2018  
Ben J. Arguijo  
Project Manager

# **Figures**





Legend

Proposed Excavation Depths

6" bgs

1" bgs

2" bgs

Auger Hole

Release

Overspray Area

Figure 2  
Sample Location Map  
OXY USA, Inc.  
Federal 12 #14H  
Eddy County, New Mexico  
NMOCD Reference #: 2RP-4488



Trinity Oilfield Services & Rentals, LLC  
P.O. Box 2587  
Hobbs, NM 88241

Drawn By: BJA	Checked By: CTR
March 29, 2018	Scale: 1" = 40'

# **Tables**

TABLE 1  
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

OXY USA, INC.  
FEDERAL 12 #14H  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-4488



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015Mod				300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
NMOCD Recommended Remediation Action Levels (RRALS)				10	NE	NE	NE	NE	NE	50	NE	NE	NE	5,000	600
SP-1 @ 6"	6"	12/19/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	18.0	<15.0	18.0	35.4
SP-2 @ 6"	6"	12/19/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	<4.98
SP-3 @ 6"	6"	12/19/2017	In-Situ	<0.0020	0.0023	0.0088	0.0383	0.0162	0.0545	0.0656	26.4	371	35.1	433	<b>6,670</b>
SP-3 @ 1'	1'	12/19/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	25.6	<15.0	25.6	593
SP-4 @ 6"	6"	12/19/2017	In-Situ	0.0248	0.360	0.352	0.800	0.291	1.09	1.83	741	2,170	173	3,080	<b>1,040</b>
SP-4 @ 1'	1'	12/19/2017	In-Situ	<0.0020	0.0020	<0.0020	<0.0040	<0.0020	<0.0020	0.0020	<15.0	37.8	<15.0	37.8	<4.90
SP-5 @ 6"	6"	12/19/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	<5.00
SP-6 @ 6"	6"	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	0.0050	<0.0020	0.0050	0.0050	<15.0	18.2	<15.0	18.2	12.0
SP-7 @ 6"	6"	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	402
SP-8 @ 6"	6"	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	<b>9,300</b>
SP-8 @ 1'	1'	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	<b>1,010</b>
SP-8 @ 2'	2'	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	274
SP-9 @ 6"	6"	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	<4.98
SP-10 @ 6"	6"	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	134
SP-11 @ 6"	6"	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	110
SP-12 @ 6"	6"	12/20/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	214

NE = Not established

- = Not analyzed

Concentrations in BOLD exceed NMOCD RRALS

TABLE 2  
CHLORIDE FIELD TESTS

OXY USA, INC.  
FEDERAL 12 #14H  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-4488



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	HACH QUANTAB
				CHLORIDE (mg/Kg)
<b>NMOCD Recommended Remediation Action Level (RRAL)</b>				<b>600</b>
SP-1 @ 6"	6"	12/19/2017	In-Situ	<116
SP-2 @ 6"	6"	12/19/2017	In-Situ	<116
SP-3 @ 6"	6"	12/19/2017	In-Situ	<b>7,160</b>
SP-3 @ 1'	1'	12/19/2017	In-Situ	560
SP-4 @ 6"	6"	12/19/2017	In-Situ	<b>904</b>
SP-4 @ 1'	1'	12/19/2017	In-Situ	<124
SP-5 @ 6"	6"	12/19/2017	In-Situ	<124
SP-6 @ 6"	6"	12/20/2017	In-Situ	<124
SP-7 @ 6"	6"	12/20/2017	In-Situ	<124
SP-8 @ 6"	6"	12/20/2017	In-Situ	<b>8,492</b>
SP-8 @ 1'	1'	12/20/2017	In-Situ	<b>836</b>
SP-8 @ 2'	2'	12/20/2017	In-Situ	308
SP-9 @ 6"	6"	12/20/2017	In-Situ	<124
SP-10 @ 6"	6"	12/20/2017	In-Situ	180
SP-11 @ 6"	6"	12/20/2017	In-Situ	<124
SP-12 @ 6"	6"	12/20/2017	In-Situ	180

Concentrations in BOLD exceed the NMOCD RRAL

# **Appendices**

# **Appendix A**

# **Release Notification &**

# **Corrective Action (Form C-141)**

NM OIL CONSERVATION  
ARTESIA DISTRICT

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

NOV 15 2017

Form C-141  
Revised April 3, 2017

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

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

## Release Notification and Corrective Action

*NAB1732444101*

### OPERATOR

Initial Report

Final Report

Name of Company	OXY USA INC	<i>111046</i>	Contact	WADE DITTRICH
Address	PO BOX 4294; HOUSTON, TX 77210		Telephone No.	575-390-2828
Facility Name	FEDERAL 12 #14H		Facility Type	BATTERY

Surface Owner	FEDERAL	Mineral Owner	FEDERAL	API No.	30-015-40821
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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
P	12	22S	31E	330	SOUTH	405	EAST	EDDY

Latitude 32.399528 Longitude -103.723766 NAD83

### NATURE OF RELEASE

Type of Release	OIL & PRODUCED WATER	Volume of Release	1 BBLS OIL & 7 BBLS PRODUCED WATER	Volume Recovered
Source of Release	GASKET SEAL ON HEATER TREATER FAILURE	Date and Hour of Occurrence	11/10/2017	Date and Hour of Discovery 11/11/2017
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	MIKE BRATCHER-NMOCD; CRYSTAL WEAVER-NMOCD; SHELLY TUCKER-BLM	
By Whom?	WADE DITTRICH	Date and Hour	11/11/2017 @ 7:41 PM	
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.\*

The release was caused by a gasket seal on the heater treater failed. Gasket was fixed and returned to service.

Describe Area Affected and Cleanup Action Taken.\*

The affected area was 10x30ft, 40x50ft (measurements are subject to change with GPS tracking). Remediation will be completed in accordance with a remediation plan approved by the NMOCD and the BLM.

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>Wade Dittrich</i>		
Printed Name:	WADE DITTRICH		
Title:	ENVIRONMENTAL COORDINATOR		
E-mail Address:	wade_dittrich@oxy.com		
Date:	11/15/17	Phone:	575-390-2828
Conditions of Approval:	<i>See attached</i>		Attached <input checked="" type="checkbox"/>
			<i>200-4488</i>

\* Attach Additional Sheets If Necessary

# **Appendix B**

## **Depth-to-Groundwater Data**



# 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 Q Q		Tws	Rng	X	Y	Distance	Depth	Depth	Water
				64	16	4	Well	Water Column					
C 04144 POD2		CUB	LE	1	3	3	07	22S	32E	620136	3585733		315
C 04144 POD1		CUB	LE	3	1	3	07	22S	32E	620128	3585772		349
C 04144 POD4		CUB	LE	3	1	3	07	22S	32E	620200	3585808		409
C 04144 POD3		CUB	LE	3	1	3	07	22S	32E	620240	3585842		458

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 4

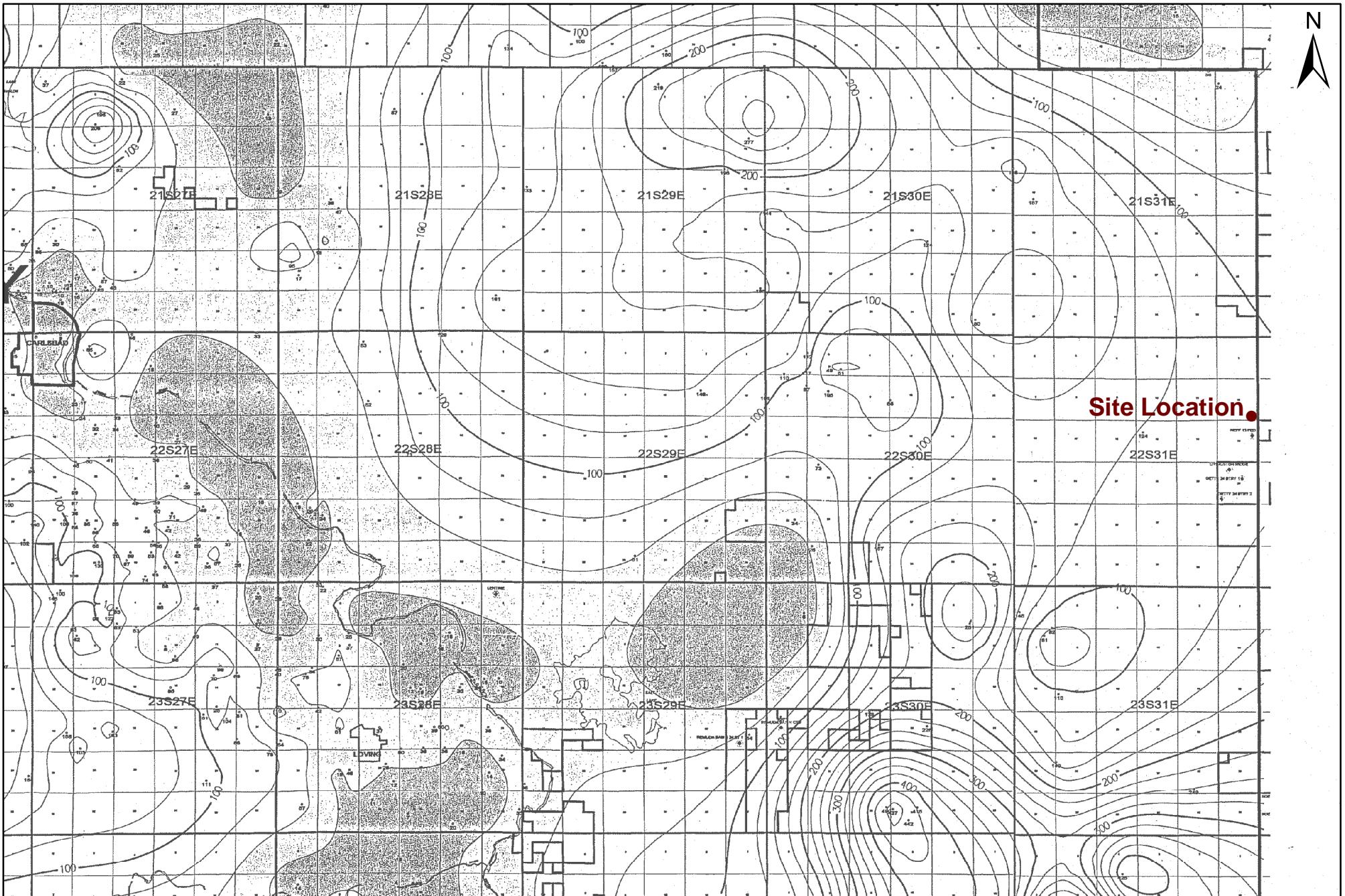
UTMNAD83 Radius Search (in meters):

Easting (X): 620025

Northing (Y): 3585438

Radius: 1610

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.



**Figure 3**  
**Depth-to-Groundwater Trend Map**  
**OXY USA, Inc.**  
**Federal 12 #14H**  
**Eddy County, New Mexico**  
**NMOCD Reference #: 2RP-4488**



Trinity Oilfield Services & Rentals, LLC  
P.O. Box 2587  
Hobbs, NM 88241

Drawn By: BJA	Checked By: CTR
March 22, 2018	Not To Scale

# **Appendix C**

# **Photographs**

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking West)



Federal 12 #14H – Release (Looking West-Northwest)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking South-Southwest)



Federal 12 #14H – Release (Looking South)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking South)



Federal 12 #14H – Release (Looking Southeast)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking Southeast)



Federal 12 #14H – Release (Looking Northeast)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking East-Northeast)



Federal 12 #14H – Release (Looking South-Southeast)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking West)



Federal 12 #14H – Release (Looking Northwest)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking North-Northwest)



Federal 12 #14H – Release (Looking West-Southwest)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking Southwest)



Federal 12 #14H – Release (Looking South-Southwest)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking West-Northwest)



Federal 12 #14H – Release (Looking Northwest)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Release (Looking North-Northwest)



Federal 12 #14H – Release (Looking North-Northwest)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Overspray Area (Looking Northwest)



Federal 12 #14H – Overspray Area (Looking West-Northwest)

**OXY USA, Inc. – Federal 12 #14H**  
Unit Letter “P” (SE/SE), Section 12, Township 22S, Range 31E



Federal 12 #14H – Overspray Area (Looking West)



Federal 12 #14H – Overspray Area (Looking Northwest)

# **Appendix D**

# **Laboratory Analytical Reports**



# Certificate of Analysis Summary 572153

## Trinity Oilfield Services & Rentals, LLC, Hobbs, NM



Project Name: Fed. 12 14H Battery

Project Id:

Contact: Ben Arguijo

Project Location:

Date Received in Lab: Tue Dec-26-17 11:46 am

Report Date: 04-JAN-18

Project Manager: Holly Taylor

<b>Analysis Requested</b>	<b>Lab Id:</b>	572153-001	572153-002	572153-003	572153-004	572153-005	572153-006					
	<b>Field Id:</b>	Sp-1@6"	Sp-2@6"	Sp-3@6"	Sp-3@1'	Sp-4@6"	Sp-4@1'					
	<b>Depth:</b>											
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL					
	<b>Sampled:</b>	Dec-19-17 12:30	Dec-19-17 13:10	Dec-19-17 13:30	Dec-19-17 13:45	Dec-19-17 14:00	Dec-19-17 14:10					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Dec-28-17 10:00	Dec-28-17 10:00	Dec-28-17 10:00	Dec-28-17 10:00	Dec-29-17 08:00	Dec-29-17 08:00					
	<b>Analyzed:</b>	Dec-28-17 22:15	Dec-28-17 22:34	Dec-28-17 22:52	Dec-28-17 23:11	Dec-29-17 18:17	Dec-29-17 15:19					
	<b>Units/RL:</b>	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Benzene	<0.00199	0.00199	<0.00202	0.00202	<0.00201	0.00199	0.0248	0.00201	<0.00202	0.00202		
Toluene	<0.00199	0.00199	<0.00202	0.00202	0.00232	0.00201	<0.00199	0.00199	0.360	0.00201	0.00203	0.00202
Ethylbenzene	<0.00199	0.00199	<0.00202	0.00202	0.00877	0.00201	<0.00199	0.00199	0.352	0.00201	<0.00202	0.00202
m,p-Xylenes	<0.00398	0.00398	<0.00403	0.00403	0.0383	0.00402	<0.00398	0.00398	0.800	0.00402	<0.00403	0.00403
o-Xylene	<0.00199	0.00199	<0.00202	0.00202	0.0162	0.00201	<0.00199	0.00199	0.291	0.00201	<0.00202	0.00202
Total Xylenes	<0.00199	0.00199	<0.00202	0.00202	0.0545	0.00201	<0.00199	0.00199	1.09	0.00201	<0.00202	0.00202
Total BTEX	<0.00199	0.00199	<0.00202	0.00202	0.0656	0.00201	<0.00199	0.00199	1.83	0.00201	0.00203	0.00202
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Dec-29-17 08:56										
	<b>Analyzed:</b>	Dec-29-17 09:55	Dec-29-17 10:02	Dec-29-17 10:22	Dec-29-17 10:29	Dec-29-17 10:36	Dec-29-17 10:43					
	<b>Units/RL:</b>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride	35.4	4.91	<4.98	4.98	6670	49.3	593	4.94	1040	4.95	<4.90	4.90
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Dec-28-17 10:00										
	<b>Analyzed:</b>	Dec-28-17 17:36	Dec-28-17 13:55	Dec-28-17 14:15	Dec-28-17 14:36	Dec-28-17 15:55	Dec-28-17 14:55					
	<b>Units/RL:</b>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons (GRO)	<15.0	15.0	<15.0	15.0	26.4	15.0	<15.0	15.0	741	15.0	<15.0	15.0
Diesel Range Organics (DRO)	18.0	15.0	<15.0	15.0	371	15.0	25.6	15.0	2170	15.0	37.8	15.0
Oil Range Hydrocarbons (ORO)	<15.0	15.0	<15.0	15.0	35.1	15.0	<15.0	15.0	173	15.0	<15.0	15.0
Total TPH	18.0	15.0	<15.0	15.0	433	15.0	25.6	15.0	3080	15.0	37.8	15.0

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Holly Taylor  
Project Manager



# Certificate of Analysis Summary 572153

## Trinity Oilfield Services & Rentals, LLC, Hobbs, NM



Project Name: Fed. 12 14H Battery

Project Id:

Contact: Ben Arguijo

Project Location:

Date Received in Lab: Tue Dec-26-17 11:46 am

Report Date: 04-JAN-18

Project Manager: Holly Taylor

<b>Analysis Requested</b>	<b>Lab Id:</b>	572153-007	572153-008	572153-009	572153-010	572153-011	572153-012					
	<b>Field Id:</b>	Sp-5@6"	Sp-6@6"	Sp-7@6"	Sp-8@6"	Sp-8@1'	Sp-8@2'					
	<b>Depth:</b>											
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL					
	<b>Sampled:</b>	Dec-19-17 14:25	Dec-20-17 08:30	Dec-20-17 08:50	Dec-20-17 09:15	Dec-20-17 09:25	Dec-20-17 09:35					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Dec-29-17 08:00	Dec-29-17 08:00	Dec-30-17 12:00	Dec-30-17 12:00	Dec-30-17 12:00	Dec-30-17 12:00					
	<b>Analyzed:</b>	Dec-29-17 15:38	Dec-29-17 15:57	Dec-30-17 23:32	Dec-30-17 23:51	Dec-31-17 00:49	Dec-31-17 01:08					
	<b>Units/RL:</b>	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Benzene	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00200	<0.00199	0.00199	<0.00198	0.00198		
Toluene	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Ethylbenzene	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
m,p-Xylenes	<0.00401	0.00401	0.00502	0.00404	<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00397	0.00397
o-Xylene	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Total Xylenes	<0.00200	0.00200	0.00502	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Total BTEX	<0.00200	0.00200	0.00502	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Dec-29-17 08:56										
	<b>Analyzed:</b>	Dec-29-17 10:50	Dec-29-17 10:57	Dec-29-17 11:18	Dec-29-17 11:25	Dec-29-17 11:46	Dec-29-17 11:53	Dec-29-17 11:53	Dec-29-17 11:53	Dec-29-17 11:53		
	<b>Units/RL:</b>	mg/kg	RL									
Chloride	<5.00	5.00	12.0	4.92	402	4.96	9300	49.5	1010	4.95	274	4.94
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Dec-28-17 10:00										
	<b>Analyzed:</b>	Dec-28-17 15:16	Dec-28-17 15:35	Dec-28-17 18:35	Dec-28-17 18:55	Dec-28-17 19:15	Dec-28-17 19:34					
	<b>Units/RL:</b>	mg/kg	RL									
Gasoline Range Hydrocarbons (GRO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)	<15.0	15.0	18.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH	<15.0	15.0	18.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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Holly Taylor  
Project Manager



# Certificate of Analysis Summary 572153

## Trinity Oilfield Services & Rentals, LLC, Hobbs, NM



Project Name: Fed. 12 14H Battery

Project Id:

Contact: Ben Arguijo

Project Location:

Date Received in Lab: Tue Dec-26-17 11:46 am

Report Date: 04-JAN-18

Project Manager: Holly Taylor

<b>Analysis Requested</b>	<b>Lab Id:</b>	572153-013	<b>Field Id:</b>	572153-014	<b>Depth:</b>	572153-015	<b>Matrix:</b>	572153-016		
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Dec-30-17 12:00	<b>Analyzed:</b>	Dec-30-17 12:00	<b>Units/RL:</b>	mg/kg	<b>Extracted:</b>	Dec-30-17 12:00	<b>Analyzed:</b>	Dec-30-17 12:00
Benzene	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198		
Toluene	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198		
Ethylbenzene	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198		
m,p-Xylenes	<0.00403	0.00403	<0.00401	0.00401	<0.00398	0.00398	<0.00396	0.00396		
o-Xylene	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198		
Total Xylenes	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198		
Total BTEX	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198		
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Dec-29-17 08:56	<b>Analyzed:</b>	Dec-29-17 08:56	<b>Units/RL:</b>	mg/kg	<b>Extracted:</b>	Dec-29-17 08:56	<b>Analyzed:</b>	Dec-29-17 08:56
Chloride	<4.98	4.98	134	4.93	110	4.99	214	4.96		
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Dec-28-17 10:00	<b>Analyzed:</b>	Dec-28-17 10:00	<b>Units/RL:</b>	mg/kg	<b>Extracted:</b>	Dec-28-17 10:00	<b>Analyzed:</b>	Dec-28-17 10:00
Gasoline Range Hydrocarbons (GRO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Oil Range Hydrocarbons (ORO)	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Total TPH	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		

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Holly Taylor  
Project Manager

**Analytical Report 572153**  
for  
**Trinity Oilfield Services & Rentals, LLC**

**Project Manager: Ben Arguijo**  
**Fed. 12 14H Battery**

**04-JAN-18**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab code: TX00122):  
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):  
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)  
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)  
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)  
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

04-JAN-18

Project Manager: **Ben Arguijo**  
**Trinity Oilfield Services & Rentals, LLC**  
PO BOX 2587  
Hobbs, NM 88241

Reference: XENCO Report No(s): **572153**

**Fed. 12 14H Battery**

Project Address:

**Ben Arguijo:**

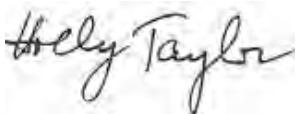
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 572153. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 572153 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



**Holly Taylor**

Project Manager

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*Certified and approved by numerous States and Agencies.*

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**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
Sp-1@6"	S	12-19-17 12:30		572153-001
Sp-2@6"	S	12-19-17 13:10		572153-002
Sp-3@6"	S	12-19-17 13:30		572153-003
Sp-3@1'	S	12-19-17 13:45		572153-004
Sp-4@6"	S	12-19-17 14:00		572153-005
Sp-4@1'	S	12-19-17 14:10		572153-006
Sp-5@6"	S	12-19-17 14:25		572153-007
Sp-6@6"	S	12-20-17 08:30		572153-008
Sp-7@6"	S	12-20-17 08:50		572153-009
Sp-8@6"	S	12-20-17 09:15		572153-010
Sp-8@1'	S	12-20-17 09:25		572153-011
Sp-8@2'	S	12-20-17 09:35		572153-012
Sp-9@6"	S	12-20-17 09:45		572153-013
Sp-10@6"	S	12-20-17 10:00		572153-014
Sp-11@6"	S	12-20-17 10:15		572153-015
Sp-12@6"	S	12-20-17 10:30		572153-016



## CASE NARRATIVE

***Client Name: Trinity Oilfield Services & Rentals, LLC***

***Project Name: Fed. 12 14H Battery***

Project ID:

Work Order Number(s): 572153

Report Date: 04-JAN-18

Date Received: 12/26/2017

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### **Sample receipt non conformances and comments:**

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#### **Sample receipt non conformances and comments per sample:**

None

#### **Analytical non conformances and comments:**

Batch: LBA-3037186 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3037330 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3037335 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-1@6"**

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-001

Date Collected: 12.19.17 12.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: LRI

% Moisture:

Analyst: OJS

Date Prep: 12.29.17 08.56

Basis: Wet Weight

Seq Number: 3037187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>35.4</b>	4.91	mg/kg	12.29.17 09.55		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: JUM

% Moisture:

Analyst: JUM

Date Prep: 12.28.17 10.00

Basis: Wet Weight

Seq Number: 3037188

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 17.36	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>18.0</b>	15.0	mg/kg	12.28.17 17.36		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 17.36	U	1
<b>Total TPH</b>	PHC635	<b>18.0</b>	15.0	mg/kg	12.28.17 17.36		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	73	%	70-135	12.28.17 17.36		
o-Terphenyl	84-15-1	76	%	70-135	12.28.17 17.36		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-1@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-001**

Date Collected: 12.19.17 12.30

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037186**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.28.17 22.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.28.17 22.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.28.17 22.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.28.17 22.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.28.17 22.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.28.17 22.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.28.17 22.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	90	%	80-120	12.28.17 22.15		
4-Bromofluorobenzene	460-00-4	88	%	80-120	12.28.17 22.15		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-2@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-002**

Date Collected: 12.19.17 13.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	12.29.17 10.02	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 13.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 13.55	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 13.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 13.55	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	89	%	70-135	12.28.17 13.55	
o-Terphenyl		84-15-1	93	%	70-135	12.28.17 13.55	



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-2@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-002**

Date Collected: 12.19.17 13.10

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037186**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.28.17 22.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.28.17 22.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.28.17 22.34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.28.17 22.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.28.17 22.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.28.17 22.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.28.17 22.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	80-120	12.28.17 22.34		
4-Bromofluorobenzene	460-00-4	88	%	80-120	12.28.17 22.34		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-3@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-003**

Date Collected: 12.19.17 13.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>6670</b>	49.3	mg/kg	12.29.17 10.22		10

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>26.4</b>	15.0	mg/kg	12.28.17 14.15		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>371</b>	15.0	mg/kg	12.28.17 14.15		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>35.1</b>	15.0	mg/kg	12.28.17 14.15		1
<b>Total TPH</b>	PHC635	<b>433</b>	15.0	mg/kg	12.28.17 14.15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	86	%	70-135	12.28.17 14.15		
o-Terphenyl	84-15-1	82	%	70-135	12.28.17 14.15		



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-3@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-003

Date Collected: 12.19.17 13.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.28.17 10.00

Basis: Wet Weight

Seq Number: 3037186

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.28.17 22.52	U	1
Toluene	108-88-3	<b>0.00232</b>	0.00201	mg/kg	12.28.17 22.52		1
Ethylbenzene	100-41-4	<b>0.00877</b>	0.00201	mg/kg	12.28.17 22.52		1
m,p-Xylenes	179601-23-1	<b>0.0383</b>	0.00402	mg/kg	12.28.17 22.52		1
o-Xylene	95-47-6	<b>0.0162</b>	0.00201	mg/kg	12.28.17 22.52		1
Total Xylenes	1330-20-7	<b>0.0545</b>	0.00201	mg/kg	12.28.17 22.52		1
Total BTEX		<b>0.0656</b>	0.00201	mg/kg	12.28.17 22.52		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	80-120	12.28.17 22.52		
1,4-Difluorobenzene	540-36-3	82	%	80-120	12.28.17 22.52		



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-3@1'

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-004

Date Collected: 12.19.17 13.45

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: LRI

% Moisture:

Analyst: OJS

Date Prep: 12.29.17 08.56

Basis: Wet Weight

Seq Number: 3037187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	593	4.94	mg/kg	12.29.17 10.29		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: JUM

% Moisture:

Analyst: JUM

Date Prep: 12.28.17 10.00

Basis: Wet Weight

Seq Number: 3037188

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 14.36	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>25.6</b>	15.0	mg/kg	12.28.17 14.36		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 14.36	U	1
<b>Total TPH</b>	PHC635	<b>25.6</b>	15.0	mg/kg	12.28.17 14.36		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	12.28.17 14.36		
o-Terphenyl	84-15-1	93	%	70-135	12.28.17 14.36		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-3@1'**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-004**

Date Collected: **12.19.17 13.45**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037186**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.28.17 23.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.28.17 23.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.28.17 23.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.28.17 23.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.28.17 23.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.28.17 23.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.28.17 23.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	80-120	12.28.17 23.11		
4-Bromofluorobenzene	460-00-4	83	%	80-120	12.28.17 23.11		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-4@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-005**

Date Collected: 12.19.17 14.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>1040</b>	4.95	mg/kg	12.29.17 10.36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>741</b>	15.0	mg/kg	12.28.17 15.55		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>2170</b>	15.0	mg/kg	12.28.17 15.55		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>173</b>	15.0	mg/kg	12.28.17 15.55		1
<b>Total TPH</b>	PHC635	<b>3080</b>	15.0	mg/kg	12.28.17 15.55		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	12.28.17 15.55		
o-Terphenyl	84-15-1	76	%	70-135	12.28.17 15.55		



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-4@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-005

Date Collected: 12.19.17 14.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.29.17 08.00

Basis: Wet Weight

Seq Number: 3037330

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<b>0.0248</b>	0.00201	mg/kg	12.29.17 18.17		1
Toluene	108-88-3	<b>0.360</b>	0.00201	mg/kg	12.29.17 18.17		1
Ethylbenzene	100-41-4	<b>0.352</b>	0.00201	mg/kg	12.29.17 18.17		1
m,p-Xylenes	179601-23-1	<b>0.800</b>	0.00402	mg/kg	12.29.17 18.17		1
o-Xylene	95-47-6	<b>0.291</b>	0.00201	mg/kg	12.29.17 18.17		1
Total Xylenes	1330-20-7	<b>1.09</b>	0.00201	mg/kg	12.29.17 18.17		1
Total BTEX		<b>1.83</b>	0.00201	mg/kg	12.29.17 18.17		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	80-120	12.29.17 18.17		
1,4-Difluorobenzene	540-36-3	105	%	80-120	12.29.17 18.17		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-4@1'**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-006**

Date Collected: 12.19.17 14.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.90	4.90	mg/kg	12.29.17 10.43	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 14.55	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>37.8</b>	15.0	mg/kg	12.28.17 14.55		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 14.55	U	1
<b>Total TPH</b>	PHC635	<b>37.8</b>	15.0	mg/kg	12.28.17 14.55		1
Surrogate			% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	89	%	70-135	12.28.17 14.55	
o-Terphenyl		84-15-1	91	%	70-135	12.28.17 14.55	



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-4@1'

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-006

Date Collected: 12.19.17 14.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.29.17 08.00

Basis: Wet Weight

Seq Number: 3037330

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.29.17 15.19	U	1
Toluene	108-88-3	<b>0.00203</b>	0.00202	mg/kg	12.29.17 15.19		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.29.17 15.19	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.29.17 15.19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.29.17 15.19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.29.17 15.19	U	1
<b>Total BTEX</b>		<b>0.00203</b>	0.00202	mg/kg	12.29.17 15.19		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	85	%	80-120	12.29.17 15.19		
1,4-Difluorobenzene	540-36-3	84	%	80-120	12.29.17 15.19		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-5@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-007**

Date Collected: 12.19.17 14.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	12.29.17 10.50	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 15.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 15.16	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 15.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 15.16	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	104	%	70-135	12.28.17 15.16	
o-Terphenyl		84-15-1	109	%	70-135	12.28.17 15.16	



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-5@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-007**

Date Collected: 12.19.17 14.25

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **12.29.17 08.00**

Basis: **Wet Weight**

Seq Number: **3037330**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.29.17 15.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.29.17 15.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.29.17 15.38	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.29.17 15.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.29.17 15.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.29.17 15.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.29.17 15.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	80-120	12.29.17 15.38		
4-Bromofluorobenzene	460-00-4	82	%	80-120	12.29.17 15.38		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-6@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-008**

Date Collected: 12.20.17 08.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>12.0</b>	4.92	mg/kg	12.29.17 10.57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 15.35	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>18.2</b>	15.0	mg/kg	12.28.17 15.35		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 15.35	U	1
<b>Total TPH</b>	PHC635	<b>18.2</b>	15.0	mg/kg	12.28.17 15.35		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	94	%	70-135	12.28.17 15.35	
o-Terphenyl		84-15-1	98	%	70-135	12.28.17 15.35	



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-6@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-008**

Date Collected: 12.20.17 08.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **12.29.17 08.00**

Basis: **Wet Weight**

Seq Number: **3037330**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.29.17 15.57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.29.17 15.57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.29.17 15.57	U	1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.00502</b>	0.00404	mg/kg	12.29.17 15.57		1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.29.17 15.57	U	1
<b>Total Xylenes</b>	1330-20-7	<b>0.00502</b>	0.00202	mg/kg	12.29.17 15.57		1
<b>Total BTEX</b>		<b>0.00502</b>	0.00202	mg/kg	12.29.17 15.57		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	85	%	80-120	12.29.17 15.57		
4-Bromofluorobenzene	460-00-4	82	%	80-120	12.29.17 15.57		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-7@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-009**

Date Collected: 12.20.17 08.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>402</b>	4.96	mg/kg	12.29.17 11.18		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 18.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 18.35	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 18.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 18.35	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	81	%	70-135	12.28.17 18.35	
o-Terphenyl		84-15-1	84	%	70-135	12.28.17 18.35	



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-7@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-009

Date Collected: 12.20.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.30.17 12.00

Basis: Wet Weight

Seq Number: 3037335

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.30.17 23.32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.30.17 23.32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.30.17 23.32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.30.17 23.32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.30.17 23.32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.30.17 23.32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.30.17 23.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	80-120	12.30.17 23.32		
1,4-Difluorobenzene	540-36-3	95	%	80-120	12.30.17 23.32		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-8@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-010**

Date Collected: 12.20.17 09.15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>9300</b>	49.5	mg/kg	12.29.17 11.25		10

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 18.55	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 18.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 18.55	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	83	%	70-135	12.28.17 18.55	
o-Terphenyl		84-15-1	85	%	70-135	12.28.17 18.55	



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-8@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-010

Date Collected: 12.20.17 09.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.30.17 12.00

Basis: Wet Weight

Seq Number: 3037335

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.30.17 23.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.30.17 23.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.30.17 23.51	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.30.17 23.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.30.17 23.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.30.17 23.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.30.17 23.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	80-120	12.30.17 23.51		
4-Bromofluorobenzene	460-00-4	86	%	80-120	12.30.17 23.51		



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-8@1'  
Lab Sample Id: 572153-011

Matrix: Soil  
Date Collected: 12.20.17 09.25

Date Received: 12.26.17 11.46

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: LRI

% Moisture:

Analyst: OJS

Date Prep: 12.29.17 08.56

Basis: Wet Weight

Seq Number: 3037187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	4.95	mg/kg	12.29.17 11.46		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: JUM

% Moisture:

Analyst: JUM

Date Prep: 12.28.17 10.00

Basis: Wet Weight

Seq Number: 3037188

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 19.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 19.15	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 19.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 19.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	78	%	70-135	12.28.17 19.15		
o-Terphenyl	84-15-1	76	%	70-135	12.28.17 19.15		



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-8@1'

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-011

Date Collected: 12.20.17 09.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.30.17 12.00

Basis: Wet Weight

Seq Number: 3037335

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.31.17 00.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.31.17 00.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.31.17 00.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.31.17 00.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.31.17 00.49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.31.17 00.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.31.17 00.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	80-120	12.31.17 00.49		
4-Bromofluorobenzene	460-00-4	84	%	80-120	12.31.17 00.49		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-8@2'**  
Lab Sample Id: 572153-012

Matrix: **Soil**  
Date Collected: 12.20.17 09.35

Date Received: 12.26.17 11.46

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: 12.29.17 08.56

Basis: **Wet Weight**

Seq Number: 3037187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>274</b>	4.94	mg/kg	12.29.17 11.53		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: 12.28.17 10.00

Basis: **Wet Weight**

Seq Number: 3037188

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 19.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 19.34	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 19.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 19.34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	72	%	70-135	12.28.17 19.34	
o-Terphenyl		84-15-1	72	%	70-135	12.28.17 19.34	



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-8@2'  
Lab Sample Id: 572153-012

Matrix: Soil  
Date Collected: 12.20.17 09.35

Date Received: 12.26.17 11.46

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.30.17 12.00

Basis: Wet Weight

Seq Number: 3037335

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.31.17 01.08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.31.17 01.08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.31.17 01.08	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.31.17 01.08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.31.17 01.08	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.31.17 01.08	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.31.17 01.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	85	%	80-120	12.31.17 01.08		
1,4-Difluorobenzene	540-36-3	98	%	80-120	12.31.17 01.08		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-9@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-013**

Date Collected: **12.20.17 09.45**

Analytical Method: **Chloride by EPA 300**

Prep Method: **E300P**

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	12.29.17 12.00	U	1

Analytical Method: **TPH By SW8015 Mod**

Prep Method: **TX1005P**

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 19.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 19.54	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 19.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 19.54	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	72	%	70-135	12.28.17 19.54	
o-Terphenyl		84-15-1	73	%	70-135	12.28.17 19.54	



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-9@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-013

Date Collected: 12.20.17 09.45

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.30.17 12.00

Basis: Wet Weight

Seq Number: 3037335

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.31.17 01.27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.31.17 01.27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.31.17 01.27	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.31.17 01.27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.31.17 01.27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.31.17 01.27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.31.17 01.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	84	%	80-120	12.31.17 01.27		
1,4-Difluorobenzene	540-36-3	92	%	80-120	12.31.17 01.27		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-10@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-014**

Date Collected: 12.20.17 10.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>134</b>	4.93	mg/kg	12.29.17 12.07		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 20.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 20.15	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 20.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 20.15	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	85	%	70-135	12.28.17 20.15	
o-Terphenyl		84-15-1	82	%	70-135	12.28.17 20.15	



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-10@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-014**

Date Collected: 12.20.17 10.00

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **12.30.17 12.00**

Basis: **Wet Weight**

Seq Number: **3037335**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.31.17 01.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.31.17 01.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.31.17 01.47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.31.17 01.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.31.17 01.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.31.17 01.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.31.17 01.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	80-120	12.31.17 01.47		
4-Bromofluorobenzene	460-00-4	86	%	80-120	12.31.17 01.47		



# Certificate of Analytical Results 572153



**Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Fed. 12 14H Battery

Sample Id: **Sp-11@6"**

Matrix: **Soil**

Date Received: 12.26.17 11.46

Lab Sample Id: **572153-015**

Date Collected: 12.20.17 10.15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **LRI**

% Moisture:

Analyst: **OJS**

Date Prep: **12.29.17 08.56**

Basis: **Wet Weight**

Seq Number: **3037187**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>110</b>	4.99	mg/kg	12.29.17 12.14		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: **JUM**

% Moisture:

Analyst: **JUM**

Date Prep: **12.28.17 10.00**

Basis: **Wet Weight**

Seq Number: **3037188**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 20.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 20.36	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 20.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 20.36	U	1
Surrogate			% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	83	%	70-135	12.28.17 20.36	
o-Terphenyl		84-15-1	83	%	70-135	12.28.17 20.36	



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-11@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-015

Date Collected: 12.20.17 10.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.30.17 12.00

Basis: Wet Weight

Seq Number: 3037335

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.31.17 02.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.31.17 02.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.31.17 02.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.31.17 02.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.31.17 02.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.31.17 02.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.31.17 02.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	84	%	80-120	12.31.17 02.06		
1,4-Difluorobenzene	540-36-3	99	%	80-120	12.31.17 02.06		



# Certificate of Analytical Results 572153



## Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-12@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-016

Date Collected: 12.20.17 10.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: LRI

% Moisture:

Analyst: OJS

Date Prep: 12.29.17 08.56

Basis: Wet Weight

Seq Number: 3037187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	214	4.96	mg/kg	12.29.17 12.21		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: JUM

% Moisture:

Analyst: JUM

Date Prep: 12.28.17 10.00

Basis: Wet Weight

Seq Number: 3037188

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.28.17 20.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.28.17 20.56	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	12.28.17 20.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.28.17 20.56	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	91	%	70-135	12.28.17 20.56	
o-Terphenyl		84-15-1	87	%	70-135	12.28.17 20.56	



# Certificate of Analytical Results 572153



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Fed. 12 14H Battery

Sample Id: Sp-12@6"

Matrix: Soil

Date Received: 12.26.17 11.46

Lab Sample Id: 572153-016

Date Collected: 12.20.17 10.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 12.30.17 12.00

Basis: Wet Weight

Seq Number: 3037335

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.31.17 02.25	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.31.17 02.25	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.31.17 02.25	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.31.17 02.25	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.31.17 02.25	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.31.17 02.25	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.31.17 02.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	80-120	12.31.17 02.25		
4-Bromofluorobenzene	460-00-4	80	%	80-120	12.31.17 02.25		



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(602) 437-0330	



## Trinity Oilfield Services &amp; Rentals, LLC

Fed. 12 14H Battery

## Analytical Method: Chloride by EPA 300

Seq Number:	3037187	Matrix:	Solid			Prep Method:	E300P
MB Sample Id:	7636738-1-BLK	LCS Sample Id:	7636738-1-BKS			Date Prep:	12.29.17
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>
Chloride	<5.00	250	238	95	239	96	90-110
					%RPD	RPD Limit	Units
					0	20	mg/kg
							12.29.17 09:06

## Analytical Method: Chloride by EPA 300

Seq Number:	3037187	Matrix:	Soil			Prep Method:	E300P
Parent Sample Id:	572153-008	MS Sample Id:	572153-008 S			Date Prep:	12.29.17
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>
Chloride	12.0	246	253	98	252	98	90-110
					%RPD	RPD Limit	Units
					0	20	mg/kg
							12.29.17 11:04

## Analytical Method: Chloride by EPA 300

Seq Number:	3037187	Matrix:	Soil			Prep Method:	E300P
Parent Sample Id:	572184-002	MS Sample Id:	572184-002 S			Date Prep:	12.29.17
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>
Chloride	<4.97	249	234	94	235	94	90-110
					%RPD	RPD Limit	Units
					0	20	mg/kg
							12.29.17 09:27

## Analytical Method: TPH By SW8015 Mod

Seq Number:	3037188	Matrix:	Solid			Prep Method:	TX1005P
MB Sample Id:	7636777-1-BLK	LCS Sample Id:	7636777-1-BKS			Date Prep:	12.28.17
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	939	94	866	87	70-135
Diesel Range Organics (DRO)	<15.0	1000	975	98	920	92	70-135
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>
1-Chlorooctane	82		90		85		70-135
o-Terphenyl	86		106		101		70-135
							%
							12.28.17 12:36
							%
							12.28.17 12:36

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery

[D] = 100\*(C-A) / B  
RPD = 200\* | (C-E) / (C+E) |  
[D] = 100 \* (C) / [B]

LCS = Laboratory Control Sample  
A = Parent Result  
C = MS/LCS Result  
E = MSD/LCSD Result

MS = Matrix Spike  
B = Spike Added  
D = MSD/LCSD % Rec



# QC Summary 572153

## Trinity Oilfield Services & Rentals, LLC

Fed. 12 14H Battery

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3037188

Parent Sample Id: 572153-001

Matrix: Soil

Prep Method: TX1005P

Date Prep: 12.28.17

MSD Sample Id: 572153-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	798	80	916	92	70-135	14	35	mg/kg	12.28.17 17:56	
Diesel Range Organics (DRO)	18.0	1000	771	75	755	74	70-135	2	35	mg/kg	12.28.17 17:56	
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>			<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>	
1-Chlorooctane			77			88			70-135	%	12.28.17 17:56	
o-Terphenyl			82			88			70-135	%	12.28.17 17:56	

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3037186

MB Sample Id: 7636780-1-BLK

Matrix: Solid

LCS Sample Id: 7636780-1-BKS

Prep Method: SW5030B

Date Prep: 12.28.17

LCSD Sample Id: 7636780-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0872	87	0.0836	84	70-130	4	35	mg/kg	12.28.17 15:00	
Toluene	<0.00200	0.0998	0.0823	82	0.0788	79	70-130	4	35	mg/kg	12.28.17 15:00	
Ethylbenzene	<0.00200	0.0998	0.0931	93	0.0888	89	71-129	5	35	mg/kg	12.28.17 15:00	
m,p-Xylenes	<0.00399	0.200	0.184	92	0.175	88	70-135	5	35	mg/kg	12.28.17 15:00	
o-Xylene	<0.00200	0.0998	0.0858	86	0.0820	82	71-133	5	35	mg/kg	12.28.17 15:00	
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>			<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>	
1,4-Difluorobenzene	92		93			94			80-120	%	12.28.17 15:00	
4-Bromofluorobenzene	84		93			96			80-120	%	12.28.17 15:00	

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3037330

MB Sample Id: 7636889-1-BLK

Matrix: Solid

LCS Sample Id: 7636889-1-BKS

Prep Method: SW5030B

Date Prep: 12.29.17

LCSD Sample Id: 7636889-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0885	89	0.0859	86	70-130	3	35	mg/kg	12.29.17 12:46	
Toluene	<0.00200	0.100	0.0830	83	0.0809	81	70-130	3	35	mg/kg	12.29.17 12:46	
Ethylbenzene	<0.00200	0.100	0.0932	93	0.0898	90	71-129	4	35	mg/kg	12.29.17 12:46	
m,p-Xylenes	<0.00401	0.200	0.184	92	0.177	89	70-135	4	35	mg/kg	12.29.17 12:46	
o-Xylene	<0.00200	0.100	0.0857	86	0.0828	83	71-133	3	35	mg/kg	12.29.17 12:46	
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>			<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>	
1,4-Difluorobenzene	93		95			99			80-120	%	12.29.17 12:46	
4-Bromofluorobenzene	91		98			97			80-120	%	12.29.17 12:46	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery

[D] = 100\*(C-A) / B  
RPD = 200\* | (C-E) / (C+E) |  
[D] = 100 \* (C) / [B]

LCS = Laboratory Control Sample  
A = Parent Result  
C = MS/LCS Result  
E = MSD/LCSD Result

MS = Matrix Spike  
B = Spike Added  
D = MSD/LCSD % Rec



# QC Summary 572153

## Trinity Oilfield Services & Rentals, LLC

Fed. 12 14H Battery

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3037335	Matrix: Solid						Prep Method:	SW5030B	
MB Sample Id:	7636894-1-BLK	LCS Sample Id: 7636894-1-BKS						Date Prep:	12.30.17	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units
Benzene	<0.00202	0.101	0.0827	82	0.0838	84	70-130	1	35	mg/kg
Toluene	<0.00202	0.101	0.0769	76	0.0782	78	70-130	2	35	mg/kg
Ethylbenzene	<0.00202	0.101	0.0826	82	0.0830	83	71-129	0	35	mg/kg
m,p-Xylenes	<0.00403	0.202	0.162	80	0.163	82	70-135	1	35	mg/kg
o-Xylene	<0.00202	0.101	0.0778	77	0.0779	78	71-133	0	35	mg/kg
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits		Units	Analysis Date
1,4-Difluorobenzene	96		101		99		80-120		%	12.30.17 18:43
4-Bromofluorobenzene	81		92		93		80-120		%	12.30.17 18:43

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3037186	Matrix: Soil						Prep Method:	SW5030B	
Parent Sample Id:	572178-011	MS Sample Id: 572178-011 S						Date Prep:	12.28.17	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units
Benzene	<0.00200	0.100	0.0968	97	0.0871	86	70-130	11	35	mg/kg
Toluene	<0.00200	0.100	0.0873	87	0.0760	75	70-130	14	35	mg/kg
Ethylbenzene	<0.00200	0.100	0.0887	89	0.0821	81	71-129	8	35	mg/kg
m,p-Xylenes	<0.00401	0.200	0.174	87	0.162	81	70-135	7	35	mg/kg
o-Xylene	<0.00200	0.100	0.0829	83	0.0776	77	71-133	7	35	mg/kg
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits		Units	Analysis Date
1,4-Difluorobenzene			110		113		80-120		%	12.28.17 15:38
4-Bromofluorobenzene			118		117		80-120		%	12.28.17 15:38

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3037330	Matrix: Soil						Date Prep:	12.29.17	
Parent Sample Id:	572250-003	MS Sample Id: 572250-003 S						MSD Sample Id:	572250-003 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units
Benzene	<0.00199	0.0996	0.0669	67	0.0538	54	70-130	22	35	mg/kg
Toluene	<0.00199	0.0996	0.0468	47	0.0365	37	70-130	25	35	mg/kg
Ethylbenzene	<0.00199	0.0996	0.0365	37	0.0276	28	71-129	28	35	mg/kg
m,p-Xylenes	<0.00398	0.199	0.0696	35	0.0522	26	70-135	29	35	mg/kg
o-Xylene	<0.00199	0.0996	0.0348	35	0.0263	26	71-133	28	35	mg/kg
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits		Units	Analysis Date
1,4-Difluorobenzene			103		100		80-120		%	12.29.17 13:23
4-Bromofluorobenzene			102		102		80-120		%	12.29.17 13:23

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery

[D] = 100\*(C-A) / B  
RPD = 200\* | (C-E) / (C+E) |  
[D] = 100 \* (C) / [B]

LCS = Laboratory Control Sample  
A = Parent Result  
C = MS/LCS Result  
E = MSD/LCSD Result

MS = Matrix Spike  
B = Spike Added  
D = MSD/LCSD % Rec



## QC Summary 572153

## Trinity Oilfield Services &amp; Rentals, LLC

Fed. 12 14H Battery

Analytical Method: BTEX by EPA 8021B

Seq Number: 3037335

Matrix: Soil

Prep Method: SW5030B

Parent Sample Id: 572353-025

MS Sample Id: 572353-025 S

Date Prep: 12.30.17

MSD Sample Id: 572353-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0740	74	0.0853	85	70-130	14	35	mg/kg	12.30.17 19:22	
Toluene	<0.00201	0.100	0.0676	68	0.0785	79	70-130	15	35	mg/kg	12.30.17 19:22	X
Ethylbenzene	<0.00201	0.100	0.0724	72	0.0841	84	71-129	15	35	mg/kg	12.30.17 19:22	
m,p-Xylenes	<0.00402	0.201	0.142	71	0.164	82	70-135	14	35	mg/kg	12.30.17 19:22	
o-Xylene	<0.00201	0.100	0.0684	68	0.0787	79	71-133	14	35	mg/kg	12.30.17 19:22	X
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag				Units	Analysis Date	
1,4-Difluorobenzene			103			98			80-120	%	12.30.17 19:22	
4-Bromofluorobenzene			94			97			80-120	%	12.30.17 19:22	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery

[D] = 100\*(C-A) / B  
RPD = 200\* | (C-E) / (C+E) |  
[D] = 100 \* (C) / [B]

LCS = Laboratory Control Sample  
A = Parent Result  
C = MS/LCS Result  
E = MSD/LCSD Result

MS = Matrix Spike  
B = Spike Added  
D = MSD/LCSD % Rec



# CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)56  
roool-c

Page 1 of 2

572153

LAB W.O #:

572153

Field billable Hrs:

## \* Container Type Codes

VA	Vial Amber	ES	Encore Sampler
VC	Vial Clear	TS	TerraCore
Sampler		VP	Vial Pre-preserved
AC	Air Canister	TB	Tedlar Bag
GA	Glass Amber	ZB	Zip Lock Bag
GC	Glass Clear	PC	Plastic Clear
PA	Plastic Amber		
PC	Plastic Clear		
Other			

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal

## \*\* Preservative Type Codes

A. None	E. HCl	I. Ice
B. HNO <sub>3</sub>	F. MeOH	J. MCAA
C. H <sub>2</sub> SO <sub>4</sub>	G. Na <sub>2</sub> SO <sub>3</sub>	K. ZnAc&NaOH
D. NaOH	H. NaHSO <sub>4</sub>	L. Asbc
Acid&NaOH	O.	

## ^ Matrix Type Codes

GW	Ground Water	S	Soil/Sediment/Soil
VW	Waste Water	W	Wipe
DW	Drinking Water	A	Air
SW	Surface Water	O	Oil
OW	Ocean/Sea Water	T	Tissue
PL	Product-Liquid	U	Urine
PS	Product-Solid	B	Blood
SL	Sludge		
Other			

## REMARKS

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Filterd	Integrity OK (Y/N)	Round # or containers	Example Volatiles by 8260	TPH	BTEX	Chloride	See Remarks	Hold Sample (CALL)	Run PAH	Other
1	SP-1 @ 6"	12/19/17	1230	S			1	X				X			Run BTEX if TPH <= 5,000
2	SP-2 @ 6"	12/19/17	1310	S			1	X				X			Run BTEX if TPH <= 5,000
3	SP-3 @ 6"	12/19/17	1330	S			1	X				X			Run BTEX if TPH <= 5,000
4	SP-3 @ 1'	12/19/17	1345	S			1	X				X			Run BTEX if TPH <= 5,000
5	SP-4 @ 6"	12/19/17	1400	S			1	X				X			Run BTEX if TPH <= 5,000
6	SP-4 @ 1'	12/19/17	1410	S			1	X				X			Run BTEX if TPH <= 5,000
7	SP-5 @ 6"	12/19/17	1425	S			1	X				X			Run BTEX if TPH <= 5,000
8	SP-6 @ 6"	12/20/17	0830	S			1	X				X			Run BTEX if TPH <= 5,000
9	SP-7 @ 6"	12/20/17	0850	S			1	X				X			Run BTEX if TPH <= 5,000
0	SP-8 @ 6"	12/20/17	0915	S			1	X				X			Run BTEX if TPH <= 5,000

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers	Temp °C	Lab Use Only	YES NO N
CTLs TRRP DW NPDES LPST DryCln	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete	1 -6-72	3	Non-Conformances found?	
Other:							Samples intact upon arrival?	

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1 Paul Pinon	TRR	12/26/17	1146	Paul Pinon	MS	12-26-17	11:46
2 Karen Argujo	MS	12/26/17	1:35	Mary Jo Mamer	MS	12-27	1129
3							
4							

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 P

437-0330

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-95:

Exclusion of this document by client creates a legal and binding agreement between client and Xenco for analytical and testing services provided by Xenco to client under Xenco's Standard Terms of

payment are Net 30 days, and all past due amounts shall accrue interest at 1.5% per month until paid in full. All laboratory analytical data and reports generated by Xenco remain the exclusive prop

Revision Date: Nov 12, 2009

Temp: 0.8  
CF:(0-6: -0.2°C)  
(6-23: +0.2°C)  
Corrected Temp: 0.4

IR ID: R-8

... paid in full.





# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** Trinity Oilfield Services & Rentals, LLC

**Date/ Time Received:** 12/26/2017 11:46:00 AM

**Work Order #:** 572153

**Acceptable Temperature Range: 0 - 6 degC**

**Air and Metal samples Acceptable Range: Ambient**

**Temperature Measuring device used : R8**

<b>Sample Receipt Checklist</b>	<b>Comments</b>
#1 *Temperature of cooler(s)?	-.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

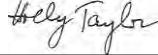
PH Device/Lot#:

**Checklist completed by:**

  
Shawnee Smith

Date: 12/27/2017

**Checklist reviewed by:**

  
Holly Taylor

Date: 12/27/2017