

Hall, Brittany, EMNRD

From: Dittrich, John W <Wade_Dittrich@oxy.com>
Sent: Friday, February 22, 2019 10:14 AM
To: yolanda@bbcinternational.com
Subject: FW: Site Closure Request - Osage 18 Fee B Com 1H (2RP-4334)
Attachments: Osage18_FinalC-141.pdf; Osage18_SiteClosureRequest.pdf

Wade Dittrich

Environmental Coordinator

Oxy Permian-New Mexico

575-390-2828 cell

575-397-8214 office

Wade_Dittrich@Oxy.com

From: Ben J. Arguijo <ben@trinityoilfieldservices.com>
Sent: Friday, February 22, 2019 9:51 AM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: Dittrich, John W <Wade_Dittrich@oxy.com>
Subject: [EXTERNAL] Site Closure Request - Osage 18 Fee B Com 1H (2RP-4334)

Mr. Billings,

Attached please find the "Remediation Summary & Site Closure Request" for the Osage 18 Fee B Com 1H release site (2RP-4334). The work was actually completed in 2018, but I evidently never sent the closure report (dated 11/7/18) to the NMOCD.

A final C-141 is attached as well.

Thank you for your time and consideration.

Respectfully,
Ben J. Arguijo

Ben J. Arguijo
Environmental Project Manager
Trinity Oilfield Services
P.O. Box 2587
Hobbs, NM 88241
(575)390-7208
ben@trinityoilfieldservices.com

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Oxy Permian Ltd.	Contact	Wade Dittrich
Address	PO Box 4294, Houston, TX 77210	Telephone No.	(575) 390-2828
Facility Name	Sundance A CTB Pipeline	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	API No. 30-015-20538

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	4	24S	31E					Eddy

Latitude N 32.24799° Longitude W 103.79063°

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	30 bbls	Volume Recovered	23 bbls
Source of Release	Broken Pipeline	Date and Hour of Occurrence	11/18/2016	Date and Hour of Discovery	
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher, Heather Patterson- NMOCD; Shelly Tucker- BLM		
By Whom?	Kathy Purvis @ BBC International Inc.	Date and Hour	11/18/16 @ 4:19 pm		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A broken pipeline caused a leak of 30 bbls of produced water. The fluids were released westward down a pipeline trench. A vacuum truck recovered 23 bbls of produced water and the line was repaired.

Describe Area Affected and Cleanup Action Taken.*

The affected area is off location in a new pipeline trench. Remediation was completed as an emergency cleanup during pipeline construction in accordance with verbal approval by both Mike Bratcher of NMOCD and Shelly Tucker of 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: 	OIL CONSERVATION DIVISION	
Printed Name: Wade Dittrich	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: 5/02/2023	Expiration Date:
E-mail Address: Wade.Dittrich@oxy.com	Conditions of Approval:	Attached ☐
Date: 12-27-17 Phone: (575) 390-2828		

Attach Additional Sheets If Necessary



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

November 30, 2016

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SUNDANCE TRENCH PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 11/30/16 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	11/30/2016	Sampling Date:	11/28/2016
Reported:	11/30/2016	Sampling Type:	Soil
Project Name:	SUNDANCE TRENCH PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ BC (H602662-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/30/2016	ND	400	100	400	0.00		

Sample ID: SP 2 @ BC (H602662-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/30/2016	ND	400	100	400	0.00	

Sample ID: SP 3 @ BC (H602662-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/30/2016	ND	400	100	400	0.00		

Sample ID: SP 4 @ BC (H602662-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/30/2016	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	11/30/2016	Sampling Date:	11/28/2016
Reported:	11/30/2016	Sampling Type:	Soil
Project Name:	SUNDANCE TRENCH PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 5 @ BC (H602662-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	11/30/2016	ND	400	100	400	0.00		

Sample ID: SP 6 @ BC (H602662-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/30/2016	ND	400	100	400	0.00		

Sample ID: SP 7 @ BC (H602662-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/30/2016	ND	400	100	400	0.00		

Sample ID: SP 8 @ BC (H602662-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/30/2016	ND	400	100	400	0.00	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 1

BILL TO

ANALYSIS REQUEST

Company Name: BBC International, Inc.		P.O. #:														
Project Manager: Cliff Brunson		Company:														
Address: P.O. Box 805		Attn:														
City: Hobbs		State: NM Zip: 88241														
Phone #: 575-397-6388		Fax #: 575-397-0397														
Project #:		Project Owner: <i>OKY</i>														
Project Name: <i>Subsea Trench Pipeline</i>		City:														
Project Location:		State:														
Sample Name: <i>Free Brunson</i>		Phone #:														
FOR LAB USE ONLY		Fax #:														
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.		# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL-
		MATRIX														
<i>11602162</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>11/28/16</i>	<i>930</i>	<i>1</i>
	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>11/28/16</i>	<i>1045</i>	<i>1</i>
	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>11/28/16</i>	<i>1120</i>	<i>1</i>
	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>11/28/16</i>	<i>1150</i>	<i>1</i>
	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>11/28/16</i>	<i>130</i>	<i>1</i>
	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>6</i>	<i>11/28/16</i>	<i>200</i>	<i>1</i>
	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>11/28/16</i>	<i>245</i>	<i>1</i>
	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>8</i>	<i>11/28/16</i>	<i>315</i>	<i>1</i>

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Relinquished By: *[Signature]* Date: *11/21/16* Received By: *[Signature]* Date: *11/21/16*

Relinquished By: *[Signature]* Date: *11/21/16* Received By: *[Signature]* Date: *11/21/16*

Delivered By: (Circle One) *UPS* *#75* *4.62* Sample Condition ☒ Cool ☐ Intact ☐ Yes ☐ No ☐ Yes ☐ No CHECKED BY: *[Signature]*

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Rush!

Laboratory Analytical Results Summary
Sundance CTB Pipeline

		Sample	SP1 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		<16.0

		Sample	SP2 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		48

		Sample	SP3 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		<16.0

		Sample	SP4 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		<16.0

		Sample	SP5 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		208

		Sample	SP6 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		<16.0

		Sample	SP7 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		80

		Sample	SP8 @ BC
Analyte	Method	Date	11/28/16
Chloride	SM4500CI-B		32

Hall, Brittany, EMNRD

From: Tucker, Shelly <stucker@blm.gov>
Sent: Thursday, December 28, 2017 9:55 AM
To: Kathy Purvis
Cc: Bratcher, Mike, EMNRD; Dittrich, John W; Smith, Jennifer A; Cliff Brunson; Ken Swinney; Jennifer Gilkey
Subject: [EXTERNAL] Re: Closure, Sundance A CTB Pipeline (11/18/16)

BLM accepts your closure request for the Sundance A CTB Pipeline * DOR 11/18/16.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist
O&G Spill/Release Coordinator

Bureau of Land Management
620 E. Greene St
Carlsbad, NM 88220

575.234.5905 - Direct
575.361.0084 - Cellular
575.234.6235 - Emergency Spill Number

stucker@blm.gov

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

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On Wed, Dec 27, 2017 at 5:00 PM, Kathy Purvis <kathy@bbcinternational.com> wrote:

Attached are the final C-141, lab summary, and lab analysis for a leak that occurred at the Sundance A CTB Pipeline on 11/18/16. Remediation was completed as part of an emergency cleanup during pipeline construction. Verbal approval to proceed was granted by both OCD and BLM. The attached lab documentation shows the results of the bottom samples taken as confirmation of the completed remediation. Please let me know if you need anything else.

Kathy Purvis

BBC International, Inc.

1324 W. Marland Blvd.

Hobbs, NM 88240

Business: (575) 397-6388

Cell: (575) 441-8619

kathy@bbcinternational.com

Trinity Oilfield Services & Rentals, LLC

Remediation Summary & Site Closure Request



Company: OXY USA, Inc. **Address:** P.O. Box 4294, Houston, TX 77210 **Telephone #:** (575) 390-2828
Site Name: Osage 18 Fee B Com 0001H **NMOCD Reference#:** 2RP-4332
Surface Owner: Private **Mineral Owner:** Private
Unit Letter: "N" (SE/SW) **Section:** 18 **Township:** 20S **Range:** 25E **County:** Eddy **GPS Coordinates:** 32.567590 N -104.525800 W
Depth to Ground Water: 225' **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: 7/31/2017 **Type of Release:** Crude Oil & Produced Water **Approximate Volume of Release:** See Below

Background Information:

On July 31, 2017, OXY USA, Inc. (OXY), discovered a release at the Osage 18 Fee B Com 0001H (Osage 18) well. A stuffing box packing failure resulted in the release of approximately 3 barrels (bbls) of crude oil and 21 bbls of produced water. The release affected an area of the caliche well pad measuring approximately 22,800 square feet. The release also affected an area of the adjacent pasture measuring approximately 600 square feet. The stuffing box was repaired during initial response activities.

The release was immediately reported to the New Mexico Oil Conservation Division's (NMOCD) Artesia 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 Attachment B. A "Site Location Map" is provided as Figure 1.

Summary of Field Activities:

On August 7, 2017, Trinity Oilfield Services & Rentals, LLC (Trinity), advanced twelve (12) hand-augered soil borings (SP-1 through SP-12) at the release site to investigate the extent of impacted soil. The auger holes were advanced to the extent practicable, and ranged in depth from approximately 6 inches to 1 foot below ground surface (bgs). Soil samples were submitted to Xenco Laboratories in Midland, Texas, for analysis of chloride, total petroleum hydrocarbons (TPH), and/or benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations using Environmental Protection Agency (EPA) Methods 300.1, SW 846-8015M, and SW 846-8021b, respectively. Laboratory analytical results indicated vertical delineation of TPH and BTEX had been achieved. However, additional delineation to determine the vertical extent of chloride contamination was required.

On September 6, 2017, eight (8) delineation trenches were advanced at the site to further investigate the vertical extent of impacted soil. The trenches were advanced in the areas represented by auger holes SP-2, SP-3, SP-4, SP-5, SP-7, SP-8, SP-10, and SP-11 to total depths ranging from 1.5 feet (SP-11) to 5.5 feet bgs (SP-5). Soil samples collected at 6-inch to 1.5-foot intervals were field-screened with a chloride test kit, and confirmation samples were submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated vertical delineation of the release had been achieved.

Immediately upon arrival at the site for the delineation event, a second, non-reportable release (i.e., less than 5 bbls) was discovered on a pressure valve connected to the Osage 18 well. The released fluid impacted an area of the caliche well pad that had been impacted by the July 31 release. The releases were remediated concurrently.

On December 30, 2017, the on-site well/pump jack, appurtenances, and fencing affected by the overspray were pressure- washed and steam-cleaned.

On March 16, 2018, representatives of Trinity met with representatives of the NMOCD's Artesia District Office to discuss

Trinity Oilfield Services & Rentals, LLC

Remediation Summary & Site Closure Request



Summary of Field Activities (cont.):

the site and review the "Environmental Site Summary & Spill Remediation Plan", dated November 22, 2017 (henceforth referred to as "Work Plan"). The Work Plan was subsequently approved by the NMOCD on March 18, 2018, with the caveat that a soil sample be collected from the sidewall of the proposed excavation between the areas represented by delineation trench SP-5 and auger hole SP-6.

On May 16, 2018, pursuant to the NMOCD-approved Work Plan, Trinity commenced excavation activities at the release site. A chloride test kit and olfactory/visual senses were utilized to determine the horizontal extent of impacted soil and to guide the excavation. From May 16 through May 31, 2018, the excavation was advanced horizontally to the extent indicated by concurrent field-screening and vertically to the depths listed in the approved Work Plan:

- 6 inches in the areas represented by auger holes SP-6, SP-9, and SP-12.
- 1 foot bgs in the areas represented by auger hole SP-1 and delineation trenches SP-10 and SP-11, as well as immediately adjacent to the on-site pump jack and well.
- 1.5 feet bgs in the area represented by delineation trench SP-3.
- 2.5 feet bgs in the area represented by delineation trench SP-7.
- 3 feet bgs in the area represented by delineation trench SP-4.
- 4 feet bgs in the areas represented by delineation trenches SP-2 and SP-8.
- 5.5 feet bgs in the area represented by delineation trench SP-5.

All excavated soil was transported to Lea Land, Inc. (NMOCD Permit #WM-01-035), for disposal. Prior to disposal, the excavated soil was stockpiled on-site on 6-mil plastic to prevent leaching of contaminants into the vadose zone. The excavated areas were fenced off during periods of inactivity to prevent injury to oilfield personnel, wildlife, and/or livestock.

On May 28, 2018, five (5) soil samples (Wall 1a, Wall 2a, Wall 3a, Wall 4a, and Wall 4b) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated contaminant concentrations in soil samples Wall 1a and Wall 2a were below the RRALs established for the site and horizontal delineation of those areas had been achieved. However, additional delineation was required in the areas represented by soil samples Wall 3a and Wall 4b. (Note: the area represented by soil sample Wall 4a had been excavated on date).

On May 29, 2018, nineteen (19) soil samples (Wall 6a, Wall 7a, Wall 8a, Wall 9a, Wall 10a, Wall 11a, Wall 12a, Wall 13a, Wall 14a, Wall 15a, Wall 16a, Wall 17a, Wall 18a, Wall 19a, Wall 20a, Wall 21a, Wall 22a, Wall 23a, and Wall 24a) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated contaminant concentrations in soil samples Wall 6a, Wall 7a, Wall 8a, Wall 9a, Wall 10a, Wall 11a, Wall 12a, Wall 13a, Wall 14a, Wall 15a, Wall 16a, Wall 17a, Wall 18a, Wall 19a, Wall 22a, Wall 23a, and Wall 24a were below the RRALs established for the site and horizontal delineation of those areas had been achieved. However, additional delineation was required in the areas represented by soil samples Wall 20a and Wall 21a.

On May 30, 2018, seventeen (17) soil samples (Wall 25a, Wall 26a, Wall 27a, Wall 28a, Wall 29a, Wall 30a, Wall 31a, Wall 32a, Wall 33a, Wall 34a, Wall 36a, Wall 37d, Wall 38a, Wall 39a, Wall 40a, Wall 41a, and Wall 42a) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated contaminant concentrations in soil samples Wall 25a, Wall 26a, Wall 27a, Wall 28a, Wall 29a, Wall 30a, Wall 31a, Wall 32a, Wall 33a, Wall 34a, Wall 36a, Wall 37d, Wall 38a, and Wall 39a were below the RRALs established for the site and horizontal delineation of those areas had been achieved. However, additional delineation was required in the areas represented by soil samples Wall 40a, Wall 41a, and Wall 42a.

On May 31, 2018, the excavation was advanced horizontally in the areas represented by soil samples Wall 20a, Wall 21a, Wall 41a, and Wall 42a. Five (5) soil samples (Wall 20b, Wall 21b, Wall 41b, Wall 42b, and Wall 44a) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. A confirmation sample (SP-5 @ 5.5'a) was also collected from the floor of the 5.5-foot bgs section of the excavation. Laboratory analytical results indicated contaminant concentrations in all submitted soil samples were below the RRALs established for the site and delineation of those areas had been achieved.

Trinity Oilfield Services & Rentals, LLC

Remediation Summary & Site Closure Request



Summary of Field Activities (cont.):

On June 14, 2018, delineation trenches were advanced horizontally in the areas represented by soil samples Wall 3a, Wall 4b, and Wall 40a. Three (3) confirmation soil samples (Wall 3b, Wall 4c, and Wall 40c) were collected from the trenches and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations.

On June 15, 2018, a delineation trench was advanced horizontally in the area represented by soil sample Wall 5a. A confirmation soil sample (Wall 5b) was collected from the trench and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations.

On June 20, 2018, Trinity requested permission from the NMOCD Artesia District Office to begin backfilling the excavation. The request was approved by an NMOCD representative on June 21, 2018, pending receipt of the laboratory analytical results from confirmation samples Wall 3b, Wall 4c, Wall 40c, and Wall 5b.

On June 27, 2018, laboratory analytical results from soil samples Wall 3b, Wall 4c, Wall 40c, and Wall 5b were forwarded to the NMOCD Artesia District Office. The results confirmed that contaminant concentrations were below the RRALs established for the site and horizontal delineation of those areas had been achieved.

On July 9, 2018, the excavation was advanced horizontally to the areas represented by soil samples Wall 3b, Wall 4c, Wall 40c, and Wall 5b. The area around the on-site pump jack and well was also excavated to approximately 1 foot bgs.

From July 20 through July 25, 2018, with NMOCD approval, the excavation was backfilled with non-impacted material, compacted, and contoured to fit the surrounding topography.

Site Closure Request:

Remediation activities conducted at the Osage 18 release site met the objectives set forth in the "Environmental Site Summary & Spill Remediation Plan", dated November 22, 2017. Soil samples collected from the floors and sidewalls of the excavation were analyzed by an NMOCD-approved laboratory, and concentrations of chloride, TPH, and BTEX were below the recommended remediation action levels established for the site. Based on these analytical results, Trinity recommends OXY provide the NMOCD Artesia District Office a copy of this "Remediation Summary & Site Closure Request" and request the NMOCD grant closure to the Osage 18 release site.

Enclosures:

Figure 1: Site Location Map

Figure 2: Delineation Map

Figure 3: Sample Location Map

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

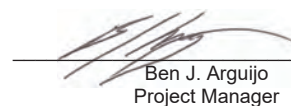
Table 2: Chloride Field Tests

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

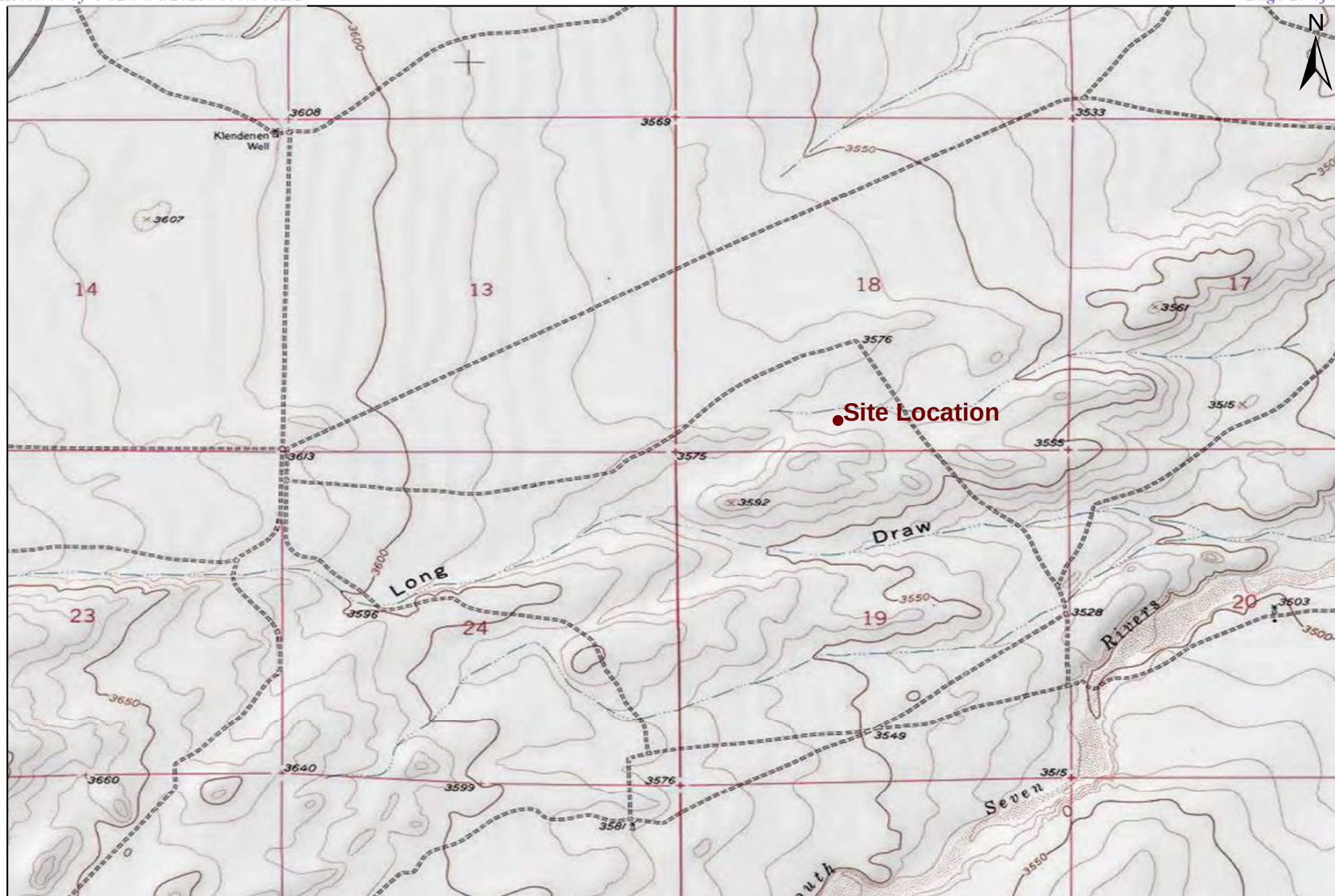
Appendix B: Depth-to-Groundwater Data

Appendix C: Photographs

Appendix D: Laboratory Analytical Results

 11/7/2018
Ben J. Arguijo
Project Manager

Figures



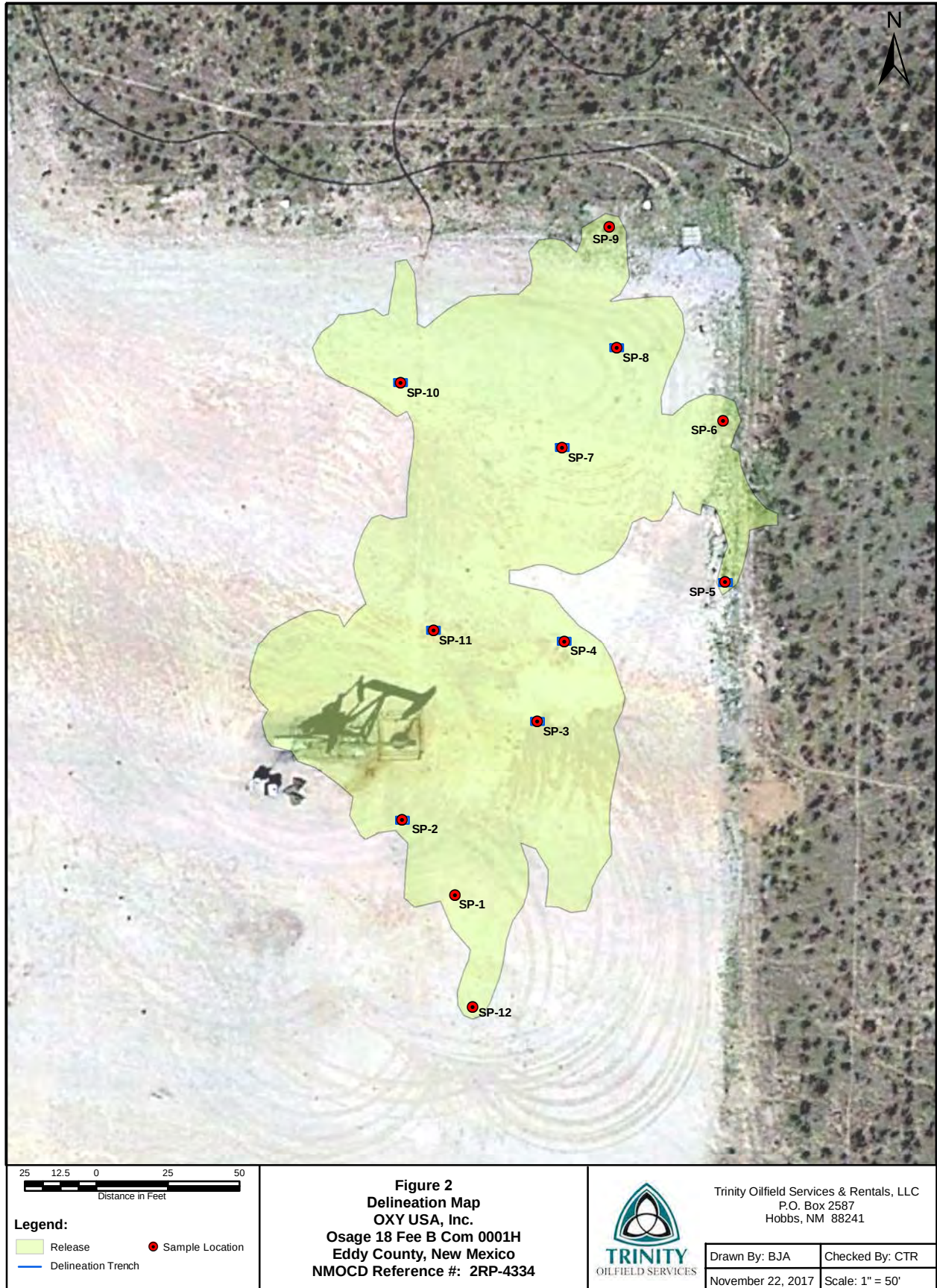
2,000 1,000 0 2,000
Distance in Feet

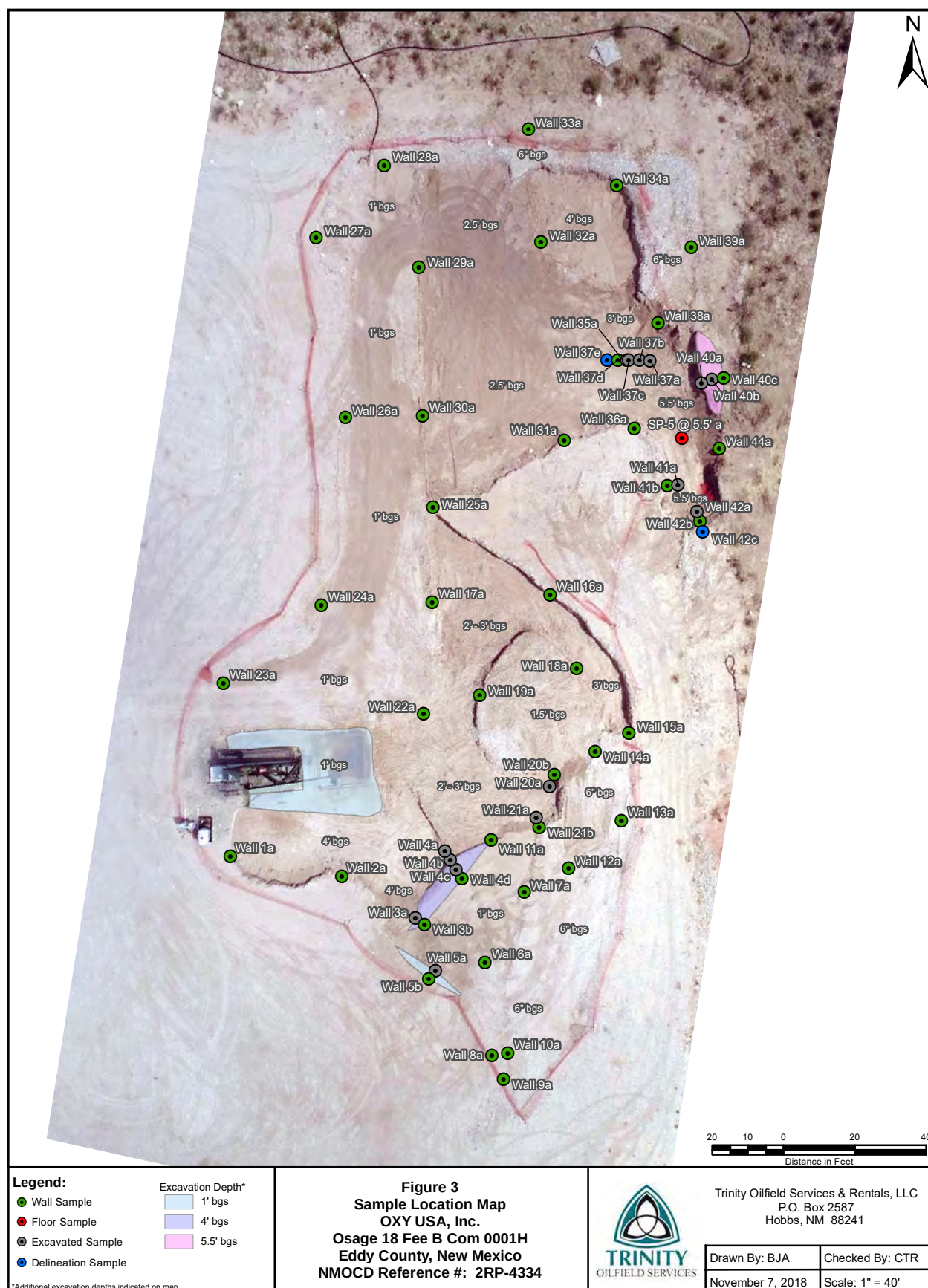
Figure 1
Site Location Map
OXY USA, Inc.
Osage 18 Fee B Com 0001H
Eddy County, New Mexico
NMOCD Reference #: 2RP-4334



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

Drawn By: BJA	Checked By: CTR
August 29, 2017	Scale: 1" = 2,000'





Tables

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

OXY USA, INC.
OSAGE 18 FEE B COM 0001H
EDDY COUNTY, NEW MEXICO
NMOCD REF. #: 2RP-4334



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M				300.1
				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 ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	EXT DRO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (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 @ 0.5'	0.5'	8/7/2017	Excavated	-	-	-	-	-	-	-	427	4,930	585	5,940	60.1
SP-1 @ 1'	1'	8/7/2017	In-Situ	<0.0034	<0.0034	0.0062	0.0179	0.0306	0.0485	0.0547	18.4	224	21.3	264	49.5
SP-2 @ 0.5'	0.5'	8/7/2017	Excavated	-	-	-	-	-	-	-	981	11,600	1,470	14,100	1,050
SP-2 @ 1'	1'	8/7/2017	Excavated	<0.0100	0.0742	0.3520	0.5910	0.0658	0.6570	1.08	32	456.0	24	512	321
SP-2 @ 1.5'	1.5'	9/6/2017	Excavated	<0.0020	0.0073	0.155	0.198	0.100	0.298	0.460	737	8,860	1,130	10,700	869
SP-2 @ 4.5'	4.5'	9/6/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	217
SP-3 @ 0.5'	0.5'	8/7/2017	Excavated	0.0205	0.7330	3.71	5.79	0.5910	6.38	10.8	276	3,100	293	3,670	1,610
SP-3 @ 1'	1'	8/7/2017	Excavated	<0.0020	<0.0020	0.0043	0.0063	0.0092	0.0156	0.0199	<15.0	71.9	<15.0	71.9	2,010
SP-3 @ 1.5'	1.5'	9/6/2017	In-Situ	<0.0020	<0.0020	0.0044	0.0074	0.0040	0.0114	0.0158	<15.0	<15.0	<15.0	<15.0	526
SP-3 @ 2.5'	2.5'	9/6/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	0.0078	0.0078	0.0078	<15.0	<15.0	<15.0	<15.0	163
SP-4 @ 0.5'	0.5'	8/7/2017	Excavated	<0.0020	0.0047	0.0153	0.0382	0.0203	0.0585	0.0785	<15.0	325	45.1	370	9,430
SP-4 @ 1'	1'	9/6/2017	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	2,250
SP-4 @ 3'	3'	9/6/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<14.9	<14.9	<14.9	<14.9	127
SP-5 @ 0.5'	0.5'	8/7/2017	Excavated	<0.0020	<0.0020	<0.0020	0.0072	0.0059	0.0131	0.0131	<14.9	63.9	<14.9	63.9	7,480
SP-5 @ 1'	1'	9/6/2017	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	858
SP-5 @ 2.5'	2.5'	9/6/2017	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	4,990
SP-5 @ 5.5'	5.5'	9/6/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	290
SP-5 @ 5.5'a	5.5'	5/31/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	454
SP-6 @ 0.5'	0.5'	8/7/2017	In-Situ	<0.0020	<0.0020	<0.0020	0.0065	0.0048	0.0113	0.0113	<15.0	127	<15.0	127	150
SP-7 @ 0.5'	0.5'	8/7/2017	Excavated	<0.0030	<0.0030	0.0051	0.0127	0.0126	0.0253	0.0304	<14.9	662	97.9	760	6,100
SP-7 @ 1'	1'	8/7/2017	Excavated	<0.0020	<0.0020	0.0038	<0.0040	0.0067	0.0067	0.0104	<15.0	67.8	<15.0	67.8	9,360
SP-7 @ 1.5'	1.5'	9/6/2017	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	2,670
SP-7 @ 2.5'	2.5'	9/6/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	89.9
SP-8 @ 0.5'	0.5'	8/7/2017	Excavated	<0.0033	0.0040	0.0139	0.0345	0.0216	0.0561	0.0740	<15.0	888	113	1,000	7,010
SP-8 @ 1'	1'	8/7/2017	Excavated	<0.0020	0.0023	0.0046	0.0070	0.0083	0.0153	0.0222	<15.0	242	23.8	266	3,430
SP-8 @ 1.5'	1.5'	9/6/2017	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<14.9	<14.9	<14.9	<14.9	2,420
SP-8 @ 3'	3'	9/6/2017	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	3,050
SP-8 @ 4'	4'	9/6/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	60.9
SP-9 @ 0.5'	0.5'	8/7/2017	In-Situ	<0.0035	0.0049	0.0160	0.0407	0.0246	0.0653	0.0862	<15.0	860	112	972	83.4
SP-10 @ 0.5'	0.5'	8/7/2017	Excavated	<0.0020	<0.0020	0.0021	0.0070	0.0054	0.0124	0.0145	<15.0	<15.0	<15.0	<15.0	789
SP-10 @ 1'	1'	8/7/2017	In-Situ	<0.0020	<0.0020	<0.0020	0.0069	0.0060	0.0129	0.0129	<15.0	<15.0	<15.0	<15.0	570
SP-10 @ 1.5'	1.5'	9/6/2017	In-Situ	<0.0035	<0.0035	<0.0035	<0.0070	<0.0035	<0.0035	<0.0035	<15.0	<15.0	<15.0	<15.0	227
SP-10 @ 4'	4'	9/6/2017	In-Situ	<0.0037	<0.0037	<0.0037	<0.0073	<0.0037	<0.0037	<0.0037	<15.0	<15.0	<15.0	<15.0	60.3

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

OXY USA, INC.
OSAGE 18 FEE B COM 0001H
EDDY COUNTY, NEW MEXICO
NMOCD REF. #: 2RP-4334



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M				300.1
				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 ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	EXT DRO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (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-11 @ 0.5'	0.5'	8/7/2017	Excavated	<0.0034	<0.0034	<0.0034	<0.0068	<0.0034	<0.0034	<0.0034	<15.0	518	94.2	612	3,660
SP-11 @ 1.5'	1.5'	9/6/2017	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	102
SP-12 @ 0.5'	0.5'	8/7/2017	In-Situ	<0.0020	0.0029	0.0068	0.0249	0.0162	0.0411	0.0508	<15.0	907	139	1,050	9.51
Wall 1a	2.5'	5/28/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	44.1
Wall 2a	2.5'	5/28/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	27.4
Wall 3a	2.5'	5/28/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	725
Wall 3b	2.5'	6/14/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	19.2	<15.0	<15.0	19.2	16.1
Wall 4a	2.5'	5/28/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	2,530
Wall 4b	2.5'	5/28/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	1,770
Wall 4d	2.5'	6/14/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	20.0	50.3	<15.0	70.3	356
Wall 5b	1'	6/15/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	8.89
Wall 6a	1'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<14.9	<14.9	<14.9	<14.9	44.4
Wall 7a	1'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	27.7
Wall 8a	0.5'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<14.9	<14.9	<14.9	<14.9	24.2
Wall 9a	0.5'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	212
Wall 10a	0.5'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	57.0
Wall 11a	0.5'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	18.9
Wall 12a	0.5'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	23.2
Wall 13a	0.5'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	27.3
Wall 14a	0.5'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	64.7
Wall 15a	2'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<14.9	<14.9	<14.9	<14.9	140
Wall 16a	2'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	399
Wall 17a	2'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	14.1
Wall 18a	2'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	11.1
Wall 19a	2'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	127
Wall 20a	2'	5/29/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	645
Wall 20b	2'	5/31/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	83.3
Wall 21a	2'	5/29/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	1,560
Wall 21b	2'	5/31/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	208
Wall 22a	2'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	102
Wall 23a	1'	5/29/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	31.4
Wall 24a	1'	5/29/2018	In-Situ	<0.0020	<0.0020	0.0024	<0.0040	<0.0020	<0.0020	0.0024	<15.0	34.9	<15.0	34.9	310
Wall 25a	1'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	37.3	<15.0	37.3	128
Wall 26a	1'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	284
Wall 27a	1'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	50.6
Wall 28a	1'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	40.0
Wall 29a	2'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	168
Wall 30a	2'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	12.1
Wall 31a	2'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<14.9	<14.9	<14.9	<14.9	246
Wall 32a	2.5'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	47.9
Wall 33a	0.5'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	172
Wall 34a	2.5'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	44.1

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

OXY USA, INC.
OSAGE 18 FEE B COM 0001H
EDDY COUNTY, NEW MEXICO
NMOCD REF. #: 2RP-4334



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M				300.1	
				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 ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	EXT DRO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
NMOCD Recommended Remediation Action Levels (RRALs)				10	NE	NE	NE	NE	NE	50	NE	NE	NE	5,000	600
Wall 36a	2'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	92.4
Wall 37d	4'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	180
Wall 38a	2'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	76.0
Wall 39a	0.5'	5/30/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	12.1
Wall 40a	4'	5/30/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	3,890
Wall 40c	4'	6/14/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	18.3	<15.0	<15.0	18.3	123
Wall 41a	4'	5/30/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	2,640
Wall 41b	4'	5/31/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	84.8
Wall 42a	4'	5/30/2018	Excavated	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	657
Wall 42b	4'	5/31/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	579
Wall 44a	4'	5/31/2018	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	13.4

NE = Not established

- = Not analyzed

Concentrations in BOLD exceed NMOCD RRALs

**TABLE 2
CHLORIDE FIELD TESTS**

**OXY USA, INC.
OSAGE 18 FEE COM 0001H
EDDY COUNTY, NEW MEXICO
NMOCD REF. #: 2RP-4334**



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	HACH QUANTAB
				CHLORIDE (mg/Kg)
NMOCD Recommended Remediation Action Level (RRAL)				600
SP-2 @ 1.5'	1.5'	9/6/2017	In-Situ	776
SP-2 @ 2'	2'	9/6/2017	In-Situ	660
SP-2 @ 4'	4'	9/6/2017	In-Situ	288
SP-2 @ 4.5'	4.5'	9/6/2017	In-Situ	204
SP-3 @ 1.5'	1.5'	9/6/2017	In-Situ	512
SP-3 @ 2'	2'	9/6/2017	In-Situ	320
SP-3 @ 2.5'	2.5'	9/6/2017	In-Situ	176
SP-4 @ 1'	1'	9/6/2017	In-Situ	3,860
SP-4 @ 1.5'	1.5'	9/6/2017	In-Situ	2,552
SP-4 @ 2'	2'	9/6/2017	In-Situ	836
SP-4 @ 2.5'	2.5'	9/6/2017	In-Situ	320
SP-4 @ 3'	3'	9/6/2017	In-Situ	152
SP-5 @ 1'	1'	9/6/2017	In-Situ	1,052
SP-5 @ 1.5'	1.5'	9/6/2017	In-Situ	4,180
SP-5 @ 2'	2'	9/6/2017	In-Situ	4,180
SP-5 @ 2.5'	2.5'	9/6/2017	In-Situ	4,180
SP-5 @ 4'	4'	9/6/2017	In-Situ	4,180
SP-5 @ 5.5'	5.5'	9/6/2017	In-Situ	152
SP-5 @ 5.5'	5.5'	5/31/2018	In-Situ	456
SP-7 @ 1.5'	1.5'	9/6/2017	In-Situ	6,224
SP-7 @ 2'	2'	9/6/2017	In-Situ	3,927
SP-7 @ 2.5'	2.5'	9/6/2017	In-Situ	152
SP-8 @ 1.5'	1.5'	9/6/2017	In-Situ	4,180
SP-8 @ 2'	2'	9/6/2017	In-Situ	3,024
SP-8 @ 2.5'	2.5'	9/6/2017	In-Situ	1,420
SP-8 @ 3'	3'	9/6/2017	In-Situ	3,860
SP-8 @ 3.5'	3.5'	9/6/2017	In-Situ	1,648
SP-8 @ 4'	4'	9/6/2017	In-Situ	<128
SP-10 @ 1.5'	1.5'	9/6/2017	In-Situ	356
SP-10 @ 2'	2'	9/6/2017	In-Situ	320
SP-10 @ 2.5'	2.5'	9/6/2017	In-Situ	260
SP-10 @ 3'	3'	9/6/2017	In-Situ	260
SP-10 @ 4'	4'	9/6/2017	In-Situ	<128
SP-11 @ 1.5'	1.5'	9/6/2017	In-Situ	128

**TABLE 2
CHLORIDE FIELD TESTS**

**OXY USA, INC.
OSAGE 18 FEE COM 0001H
EDDY COUNTY, NEW MEXICO
NMOCD REF. #: 2RP-4334**



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	HACH QUANTAB
				CHLORIDE (mg/Kg)
NMOCD Recommended Remediation Action Level (RRAL)				600
Wall 1a	2.5'	5/28/2018	In-Situ	<116
Wall 2a	2.5'	5/28/2018	In-Situ	<116
Wall 3a	2.5'	5/28/2018	In-Situ	488
Wall 3b	2.5'	6/14/2018	In-Situ	<116
Wall 4a	2.5'	5/28/2018	Excavated	1,884
Wall 4b	2.5'	5/28/2018	In-Situ	536
Wall 4c	2.5'	6/14/2018	In-Situ	1,128
Wall 4d	2.5'	6/14/2018	In-Situ	412
Wall 5a	1'	5/28/2018	In-Situ	1,884
Wall 5b	1'	6/14/2018	In-Situ	<116
Wall 6a	1'	5/29/2018	In-Situ	<116
Wall 7a	1'	5/29/2018	In-Situ	<116
Wall 8a	0.5'	5/29/2018	In-Situ	<116
Wall 9a	0.5'	5/29/2018	In-Situ	184
Wall 10a	0.5'	5/29/2018	In-Situ	<116
Wall 11a	0.5'	5/29/2018	In-Situ	<116
Wall 12a	0.5'	5/29/2018	In-Situ	<116
Wall 13a	0.5'	5/29/2018	In-Situ	184
Wall 14a	0.5'	5/29/2018	In-Situ	184
Wall 15a	2'	5/29/2018	In-Situ	268
Wall 16a	2'	5/29/2018	In-Situ	332
Wall 17a	2'	5/29/2018	In-Situ	392
Wall 18a	2'	5/29/2018	In-Situ	<116
Wall 19a	2'	5/29/2018	In-Situ	196
Wall 20a	2'	5/29/2018	Excavated	664
Wall 20b	2'	5/31/2018	In-Situ	128
Wall 21a	2'	5/29/2018	Excavated	1,208
Wall 21b	2'	5/31/2018	In-Situ	296
Wall 22a	2'	5/29/2018	In-Situ	224
Wall 23a	1'	5/29/2018	In-Situ	140
Wall 24a	1'	5/29/2018	In-Situ	196
Wall 25a	1'	5/30/2018	In-Situ	228
Wall 26a	1'	5/30/2018	In-Situ	372
Wall 27a	1'	5/30/2018	In-Situ	<128
Wall 28a	1'	5/30/2018	In-Situ	<128
Wall 29a	2'	5/30/2018	In-Situ	148
Wall 30a	2'	5/30/2018	In-Situ	<128
Wall 31a	2'	5/30/2018	In-Situ	200
Wall 32a	2.5'	5/30/2018	In-Situ	<128
Wall 33a	0.5'	5/30/2018	In-Situ	172
Wall 34a	2.5'	5/30/2018	In-Situ	<128
Wall 35a	2'	5/30/2018	Excavated	1,812
Wall 36a	2'	5/30/2018	In-Situ	128

TABLE 2
CHLORIDE FIELD TESTS

OXY USA, INC.
OSAGE 18 FEE COM 0001H
EDDY COUNTY, NEW MEXICO
NMOCD REF. #: 2RP-4334



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	HACH QUANTAB
				CHLORIDE (mg/Kg)
NMOCD Recommended Remediation Action Level (RRAL)				600
Wall 37a	4'	5/30/2018	Excavated	664
Wall 37b	4'	5/30/2018	Excavated	1,696
Wall 37c	4'	5/30/2018	Excavated	1,696
Wall 37d	4'	5/30/2018	In-Situ	172
Wall 37e	4'	5/30/2018	In-Situ	172
Wall 38a	2'	5/30/2018	In-Situ	<128
Wall 39a	0.5'	5/31/2018	In-Situ	<128
Wall 40a	4'	5/30/2018	In-Situ	3,024
Wall 40b	4'	6/14/2018	In-Situ	844
Wall 40c	4'	6/14/2018	In-Situ	200
Wall 41a	4'	5/30/2018	Excavated	3,024
Wall 41b	4'	5/31/2018	In-Situ	148
Wall 42a	4'	5/30/2018	Excavated	1,208
Wall 42b	4'	5/31/2018	In-Situ	504
Wall 42c	4'	6/14/2018	In-Situ	148
Wall 44a	4'	5/31/2018	In-Situ	<128

Concentrations in BOLD exceed the NMOCD RRAL

Appendices

Appendix A

Release Notification & Corrective Action (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
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised April 3, 2017

AUG 08 2017

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

RECEIVED

Release Notification and Corrective Action

NA31722628161 OPERATOR ☒ Initial Report ☐ Final Report

Name of Company	OXY USA INC	Contact	WADE DITTRICH
Address	PO BOX 4294; HOUSTON, TX 77210	Telephone No.	575-390-2828
Facility Name	OSAGE 18 FEE B COM #1H	Facility Type	WELL
Surface Owner	STATE	Mineral Owner	FEDERAL
		API No.	30-015-40760

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	18	20S	25E	480	SOUTH	2160	WEST	EDDY

Latitude_ 32.567590 _ Longitude_ -104.5258 _ NAD83

NATURE OF RELEASE

Type of Release	OIL & PRODUCED WATER	Volume of Release	3 bbls OIL & 21 bbls PRODUCED WATER	Volume Recovered	0 bbls
Source of Release	STUFFING BOX PACKING FAILURE	Date and Hour of Occurrence	7-31-2017	Date and Hour of Discovery	
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	CRYSTAL WEAVER-NMOCD; MIKE BRATCHER-NMOCD; SHELLY TUCKER-BLM		
By Whom?	WADE DITTRICH	Date and Hour	08/03/2017 @ 11:25 AM * 7/31/17 @ 2:28pm		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	2-mail		

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Spill caused by a stuffing box packing failure. Leak has been corrected.

Describe Area Affected and Cleanup Action Taken.*

The affected area of the spill is 75x150 FT, Leak has left location (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:	<u>WADE DITTRICH</u>			OIL CONSERVATION DIVISION	
Printed Name:	WADE DITTRICH			Signed By <u>Mike Bratcher</u> Approved by Environmental Specialist:	
Title:	ENVIROMENTAL COORDINATOR			Approval Date:	8/10/17
E-mail Address:	wade.dittrich@oxy.com			Expiration Date:	N/A
Date:				Conditions of Approval:	See attached
Phone:	575-390-2828			Attached	4334

* Attach Additional Sheets If Necessary

Appendix B

Depth-to-Groundwater Data



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 544512.82 Northing (Y): 3603450.74 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.

9/14/17 9:52 AM

WATER COLUMN/ AVERAGE
DEPTH TO WATER

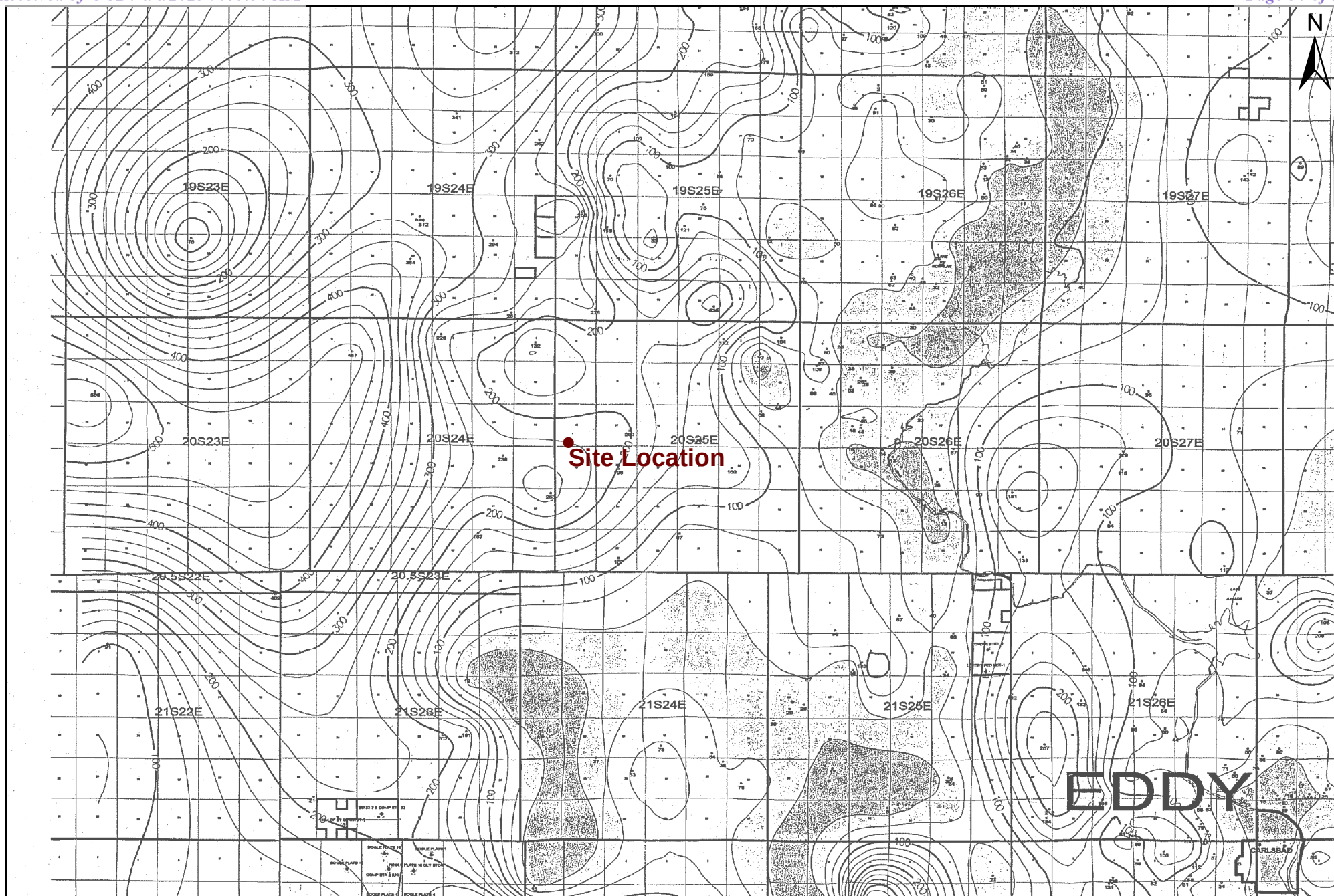


Figure 4
Depth-to-Groundwater Trend Map
 OXY USA, Inc.
 Osage 18 Fee B Com 0001H
 Eddy County, New Mexico
 NMOC Reference #: 2RP-4334



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

Drawn By: BJA	Checked By: CTR
November 17, 2017	Not To Scale

Appendix C

Photographs



Osage 18 Fee B Com 0001H - Release (Looking North)



Osage 18 Fee B Com 0001H - Release (Looking North-Northeast)



Osage 18 Fee B Com 0001H – Release (Looking North-Northeast)



Osage 18 Fee B Com 0001H – Release (Looking Northeast)



Osage 18 Fee B Com 0001H – Release (Looking Northwest)



Osage 18 Fee B Com 0001H – Release (Looking West)



Osage 18 Fee B Com 0001H – Release (Looking South)



Osage 18 Fee B Com 0001H – Release (Looking West)



Osage 18 Fee B Com 0001H – Release (Looking East)



Osage 18 Fee B Com 0001H – Release (Looking East)



Osage 18 Fee B Com 0001H – Release (Looking Southeast)



Osage 18 Fee B Com 0001H – Release (Looking East-Southeast)



Osage 18 Fee B Com 0001H – Release (Looking East-Northeast)



Osage 18 Fee B Com 0001H – Release (Looking East)



Osage 18 Fee B Com 0001H – Release (Looking Southeast)



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



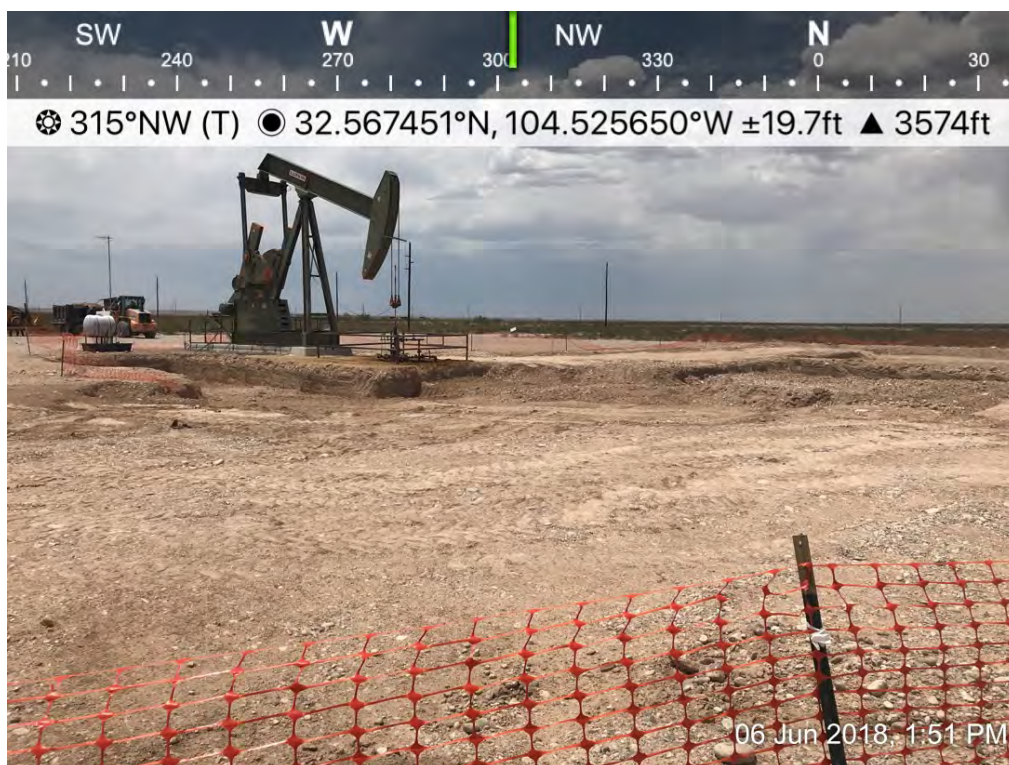
Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



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Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Excavation



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking South)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking Southwest)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking West)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking West)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking North)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking Northwest)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking North-Northeast)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking Northeast)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking East)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking East)



Osage 18 Fee B Com 0001H – Backfilled Excavation (Looking Southeast)

Appendix D

Laboratory Analytical Reports



Certificate of Analysis Summary 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage 18 Fee B com 0001H



Project Id:

Contact: Ben Arguijo

Project Location: Hobbs

Date Received in Lab: Thu Aug-10-17 04:19 pm

Report Date: 22-AUG-17

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	559992-001	559992-002	559992-003	559992-004	559992-005	559992-006
	Field Id:	SP-1 @ 0.5	SP-1 @ 1'	SP-2 @0.5'	SP-2 @ 1'	SP-3 @ 0.5'	SP-3 @ 1'
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Aug-07-17 09:38	Aug-07-17 09:40	Aug-07-17 10:00	Aug-07-17 10:08	Aug-07-17 10:16	Aug-07-17 10:17
BTEX by EPA 8021B	Extracted:		Aug-21-17 08:00		Aug-18-17 16:40	Aug-18-17 16:40	Aug-15-17 08:45
	Analyzed:		Aug-21-17 12:44		Aug-19-17 05:16	Aug-19-17 04:58	Aug-18-17 15:27
	Units/RL:		mg/kg RL		mg/kg RL	mg/kg RL	mg/kg RL
Benzene			<0.00336 0.00336		<0.00998 0.00998	0.0205 0.0201	<0.00200 0.00200
Toluene			<0.00336 0.00336		0.0742 0.00998	0.733 0.0201	<0.00200 0.00200
Ethylbenzene			0.00621 0.00336		0.352 0.00998	3.71 0.0201	0.00430 0.00200
m,p-Xylenes			0.0179 0.00671		0.591 0.0200	5.79 0.0402	0.00632 0.00400
o-Xylene			0.0306 0.00336		0.0658 0.00998	0.591 0.0201	0.00923 0.00200
Total Xylenes			0.0485 0.00336		0.657 0.00998	6.38 0.0201	0.0156 0.00200
Total BTEX			0.0547 0.00336		1.08 0.00998	10.8 0.0201	0.0199 0.00200
Chloride by EPA 300	Extracted:	Aug-17-17 10:30	Aug-17-17 10:30	Aug-17-17 10:30	Aug-17-17 10:30	Aug-17-17 10:30	Aug-17-17 10:30
	Analyzed:	Aug-17-17 16:02	Aug-17-17 14:22	Aug-17-17 14:29	Aug-17-17 14:37	Aug-17-17 14:45	Aug-17-17 14:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		60.1 4.97	49.5 4.92	1050 24.8	321 4.94	1610 24.5	2010 24.6
TPH By SW8015 Mod	Extracted:	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00
	Analyzed:	Aug-14-17 09:22	Aug-14-17 09:22	Aug-14-17 09:22	Aug-14-17 09:22	Aug-14-17 09:22	Aug-14-17 09:22
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		427 74.8	18.4 15.0	981 74.8	32.1 15.0	276 74.9	<15.0 15.0
Diesel Range Organics (DRO)		4930 74.8	224 15.0	11600 74.8	456 15.0	3100 74.9	71.9 15.0
Oil Range Hydrocarbons (ORO)		585 74.8	21.3 15.0	1470 74.8	24.3 15.0	293 74.9	<15.0 15.0
Total TPH		5940 74.8	264 15.0	14100 74.8	512 15.0	3670 74.9	71.9 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Holly Taylor
Project Manager



Certificate of Analysis Summary 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage 18 Fee B com 0001H



Project Id:

Contact: Ben Arguijo

Project Location: Hobbs

Date Received in Lab: Thu Aug-10-17 04:19 pm

Report Date: 22-AUG-17

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	559992-007	559992-008	559992-009	559992-010	559992-011	559992-012
	Field Id:	SP-4 @0.5'	SP-S @0.5'	SP-6 @0.5'	SP-7 @0.5'	SP-7 @ 1'	SP-8 @0.5'
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Aug-07-17 10:23	Aug-07-17 10:35	Aug-07-17 10:49	Aug-07-17 11:01	Aug-07-17 11:02	Aug-07-17 11:20
BTEX by EPA 8021B	Extracted:	Aug-15-17 08:45	Aug-15-17 08:45	Aug-15-17 08:45	Aug-21-17 08:00	Aug-15-17 08:45	Aug-21-17 08:00
	Analyzed:	Aug-18-17 15:27	Aug-18-17 15:27	Aug-18-17 15:27	Aug-21-17 10:32	Aug-18-17 15:27	Aug-21-17 10:51
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00330 0.00330	<0.00200 0.00200	<0.00328 0.00328
Toluene		0.00473 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00330 0.00330	<0.00200 0.00200	0.00402 0.00328
Ethylbenzene		0.0153 0.00200	<0.00200 0.00200	<0.00200 0.00200	0.00507 0.00330	0.00378 0.00200	0.0139 0.00328
m,p-Xylenes		0.0382 0.00400	0.00718 0.00400	0.00651 0.00400	0.0127 0.00660	<0.00400 0.00400	0.0345 0.00656
o-Xylene		0.0203 0.00200	0.00589 0.00200	0.00481 0.00200	0.0126 0.00330	0.00665 0.00200	0.0216 0.00328
Total Xylenes		0.0585 0.00200	0.0131 0.00200	0.0113 0.00200	0.0253 0.00330	0.00665 0.00200	0.0561 0.00328
Total BTEX		0.0785 0.00200	0.0131 0.00200	0.0113 0.00200	0.0304 0.00330	0.0104 0.00200	0.0740 0.00328
Chloride by EPA 300	Extracted:	Aug-17-17 10:30	Aug-17-17 12:00	Aug-17-17 12:00	Aug-17-17 12:00	Aug-17-17 12:00	Aug-17-17 12:00
	Analyzed:	Aug-17-17 15:00	Aug-17-17 17:42	Aug-17-17 17:18	Aug-17-17 17:49	Aug-17-17 17:57	Aug-17-17 18:05
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		9430 98.8	7480 49.3	150 4.90	6100 49.4	9360 49.6	7010 49.2
TPH By SW8015 Mod	Extracted:	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00
	Analyzed:	Aug-12-17 01:20	Aug-12-17 01:42	Aug-12-17 02:03	Aug-12-17 02:24	Aug-12-17 03:26	Aug-12-17 03:47
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		325 15.0	63.9 14.9	127 15.0	662 14.9	67.8 15.0	888 15.0
Oil Range Hydrocarbons (ORO)		45.1 15.0	<14.9 14.9	<15.0 15.0	97.9 14.9	<15.0 15.0	113 15.0
Total TPH		370 15.0	63.9 14.9	127 15.0	760 14.9	67.8 15.0	1000 15.0

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Holly Taylor
Project Manager



Certificate of Analysis Summary 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage 18 Fee B com 0001H



Project Id:

Contact: Ben Arguijo

Project Location: Hobbs

Date Received in Lab: Thu Aug-10-17 04:19 pm

Report Date: 22-AUG-17

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	559992-013	559992-014	559992-015	559992-016	559992-017	559992-018
	Field Id:	SP-8 @1'	SP-9 @ 0.5	SP-10 @ 0.5'	SP-10 @ 1'	SP-11 @0.5'	SP-12 @ 0.5'
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Aug-07-17 11:22	Aug-07-17 11:25	Aug-07-17 11:31	Aug-07-17 11:32	Aug-07-17 11:40	Aug-07-17 11:53
BTEX by EPA 8021B	Extracted:	Aug-15-17 08:45	Aug-21-17 08:00	Aug-15-17 08:45	Aug-15-17 08:45	Aug-21-17 08:00	Aug-15-17 08:45
	Analyzed:	Aug-18-17 15:27	Aug-21-17 11:10	Aug-18-17 15:27	Aug-18-17 15:27	Aug-21-17 11:29	Aug-18-17 15:27
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00346 0.00346	<0.00200 0.00200	<0.00200 0.00200	<0.00341 0.00341	<0.00200 0.00200
Toluene		0.00229 0.00200	0.00488 0.00346	<0.00200 0.00200	<0.00200 0.00200	<0.00341 0.00341	0.00293 0.00200
Ethylbenzene		0.00460 0.00200	0.0160 0.00346	0.00208 0.00200	<0.00200 0.00200	<0.00341 0.00341	0.00680 0.00200
m,p-Xylenes		0.00702 0.00400	0.0407 0.00692	0.00703 0.00400	0.00692 0.00400	<0.00683 0.00683	0.0249 0.00400
o-Xylene		0.00832 0.00200	0.0246 0.00346	0.00540 0.00200	0.00601 0.00200	<0.00341 0.00341	0.0162 0.00200
Total Xylenes		0.0153 0.00200	0.0653 0.00346	0.0124 0.00200	0.0129 0.00200	<0.00341 0.00341	0.0411 0.00200
Total BTEX		0.0222 0.00200	0.0862 0.00346	0.0145 0.00200	0.0129 0.00200	<0.00341 0.00341	0.0508 0.00200
Chloride by EPA 300	Extracted:	Aug-17-17 12:00	Aug-17-17 12:00	Aug-17-17 12:00	Aug-17-17 12:00	Aug-17-17 12:00	Aug-17-17 12:00
	Analyzed:	Aug-17-17 18:28	Aug-17-17 18:35	Aug-17-17 18:43	Aug-17-17 18:51	Aug-17-17 18:58	Aug-17-17 19:06
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		3430 24.7	83.4 4.98	789 4.98	570 4.99	3660 25.0	9.51 4.94
TPH By SW8015 Mod	Extracted:	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00	Aug-11-17 18:00
	Analyzed:	Aug-12-17 04:09	Aug-12-17 04:30	Aug-12-17 04:51	Aug-12-17 05:12	Aug-12-17 05:33	Aug-12-17 05:54
	Units/RL:	mg/kg RL	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	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		242 15.0	860 15.0	<15.0 15.0	<15.0 15.0	518 15.0	907 15.0
Oil Range Hydrocarbons (ORO)		23.8 15.0	112 15.0	<15.0 15.0	<15.0 15.0	94.2 15.0	139 15.0
Total TPH		266 15.0	972 15.0	<15.0 15.0	<15.0 15.0	612 15.0	1050 15.0

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Holly Taylor
Project Manager

Analytical Report 559992
for
Trinity Oilfield Services & Rentals, LLC

Project Manager: Ben Arguijo

Osage 18 Fee B com 0001H

22-AUG-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



22-AUG-17

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

Reference: XENCO Report No(s): **559992**
Osage 18 Fee B com 0001H
Project Address: Hobbs

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) 559992. 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. 559992 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,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor
Project Manager

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Sample Cross Reference 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1 @ 0.5	S	08-07-17 09:38		559992-001
SP-1 @ 1'	S	08-07-17 09:40		559992-002
SP-2 @0.5'	S	08-07-17 10:00		559992-003
SP-2 @ 1'	S	08-07-17 10:08		559992-004
SP-3 @ 0.5'	S	08-07-17 10:16		559992-005
SP-3 @ 1'	S	08-07-17 10:17		559992-006
SP-4 @0.5'	S	08-07-17 10:23		559992-007
SP-S @0.5'	S	08-07-17 10:35		559992-008
SP-6 @0.5'	S	08-07-17 10:49		559992-009
SP-7 @0.5'	S	08-07-17 11:01		559992-010
SP-7 @ 1'	S	08-07-17 11:02		559992-011
SP-8 @0.5'	S	08-07-17 11:20		559992-012
SP-8 @1'	S	08-07-17 11:22		559992-013
SP-9 @ 0.5	S	08-07-17 11:25		559992-014
SP-10 @ 0.5'	S	08-07-17 11:31		559992-015
SP-10 @ 1'	S	08-07-17 11:32		559992-016
SP-11 @0.5'	S	08-07-17 11:40		559992-017
SP-12 @ 0.5'	S	08-07-17 11:53		559992-018



CASE NARRATIVE

Client Name: Trinity Oilfield Services & Rentals, LLC

Project Name: Osage 18 Fee B com 0001H

Project ID:
Work Order Number(s): 559992

Report Date: 22-AUG-17
Date Received: 08/10/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3025288 Chloride by EPA 300

Lab Sample ID 559992-018 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 559992-008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018. The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3025365 BTEX by EPA 8021B

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

Batch: LBA-3025509 BTEX by EPA 8021B

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

Batch: LBA-3025625 BTEX by EPA 8021B

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



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-1 @ 0.5**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-001

Date Collected: 08.07.17 09.38

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 10.30

Basis: Wet Weight

Seq Number: 3025280

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.1	4.97	mg/kg	08.17.17 16.02		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	427	74.8	mg/kg	08.14.17 09.22		5
Diesel Range Organics (DRO)	C10C28DRO	4930	74.8	mg/kg	08.14.17 09.22		5
Oil Range Hydrocarbons (ORO)	PHCG2835	585	74.8	mg/kg	08.14.17 09.22		5
Total TPH	PHC635	5940	74.8	mg/kg	08.14.17 09.22		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	106	%	70-135	08.14.17 09.22		
o-Terphenyl	84-15-1	84	%	70-135	08.14.17 09.22		



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-1 @ 1'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-002

Date Collected: 08.07.17 09.40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 10.30

Basis: Wet Weight

Seq Number: 3025280

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.5	4.92	mg/kg	08.17.17 14.22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	18.4	15.0	mg/kg	08.14.17 09.22		1
Diesel Range Organics (DRO)	C10C28DRO	224	15.0	mg/kg	08.14.17 09.22		1
Oil Range Hydrocarbons (ORO)	PHCG2835	21.3	15.0	mg/kg	08.14.17 09.22		1
Total TPH	PHC635	264	15.0	mg/kg	08.14.17 09.22		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	08.14.17 09.22		
o-Terphenyl	84-15-1	110	%	70-135	08.14.17 09.22		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-1 @ 1'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-002

Date Collected: 08.07.17 09.40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.21.17 08.00

Basis: Wet Weight

Seq Number: 3025625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00336	0.00336	mg/kg	08.21.17 12.44	U	1
Toluene	108-88-3	<0.00336	0.00336	mg/kg	08.21.17 12.44	U	1
Ethylbenzene	100-41-4	0.00621	0.00336	mg/kg	08.21.17 12.44		1
m,p-Xylenes	179601-23-1	0.0179	0.00671	mg/kg	08.21.17 12.44		1
o-Xylene	95-47-6	0.0306	0.00336	mg/kg	08.21.17 12.44		1
Total Xylenes	1330-20-7	0.0485	0.00336	mg/kg	08.21.17 12.44		1
Total BTEX		0.0547	0.00336	mg/kg	08.21.17 12.44		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94		%	80-120	08.21.17 12.44	
1,4-Difluorobenzene	540-36-3	92		%	80-120	08.21.17 12.44	



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-2 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-003

Date Collected: 08.07.17 10.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 10.30

Basis: Wet Weight

Seq Number: 3025280

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	24.8	mg/kg	08.17.17 14.29		5

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	981	74.8	mg/kg	08.14.17 09.22		5
Diesel Range Organics (DRO)	C10C28DRO	11600	74.8	mg/kg	08.14.17 09.22		5
Oil Range Hydrocarbons (ORO)	PHCG2835	1470	74.8	mg/kg	08.14.17 09.22		5
Total TPH	PHC635	14100	74.8	mg/kg	08.14.17 09.22		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.14.17 09.22	
o-Terphenyl	84-15-1	104	%	70-135	08.14.17 09.22	



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-2 @ 1'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-004

Date Collected: 08.07.17 10.08

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 10.30

Basis: Wet Weight

Seq Number: 3025280

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	321	4.94	mg/kg	08.17.17 14.37		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	32.1	15.0	mg/kg	08.14.17 09.22		1
Diesel Range Organics (DRO)	C10C28DRO	456	15.0	mg/kg	08.14.17 09.22		1
Oil Range Hydrocarbons (ORO)	PHCG2835	24.3	15.0	mg/kg	08.14.17 09.22		1
Total TPH	PHC635	512	15.0	mg/kg	08.14.17 09.22		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	08.14.17 09.22		
o-Terphenyl	84-15-1	106	%	70-135	08.14.17 09.22		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-2 @ 1'**
 Lab Sample Id: 559992-004

Matrix: Soil
 Date Collected: 08.07.17 10.08

Date Received: 08.10.17 16.19

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.18.17 16.40

Basis: Wet Weight

Seq Number: 3025509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00998	0.00998	mg/kg	08.19.17 05.16	U	5
Toluene	108-88-3	0.0742	0.00998	mg/kg	08.19.17 05.16		5
Ethylbenzene	100-41-4	0.352	0.00998	mg/kg	08.19.17 05.16		5
m,p-Xylenes	179601-23-1	0.591	0.0200	mg/kg	08.19.17 05.16		5
o-Xylene	95-47-6	0.0658	0.00998	mg/kg	08.19.17 05.16		5
Total Xylenes	1330-20-7	0.657	0.00998	mg/kg	08.19.17 05.16		5
Total BTEX		1.08	0.00998	mg/kg	08.19.17 05.16		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	80-120	08.19.17 05.16		
1,4-Difluorobenzene	540-36-3	86	%	80-120	08.19.17 05.16		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-3 @ 0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-005

Date Collected: 08.07.17 10.16

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 10.30

Basis: Wet Weight

Seq Number: 3025280

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1610	24.5	mg/kg	08.17.17 14.45		5

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	276	74.9	mg/kg	08.14.17 09.22		5
Diesel Range Organics (DRO)	C10C28DRO	3100	74.9	mg/kg	08.14.17 09.22		5
Oil Range Hydrocarbons (ORO)	PHCG2835	293	74.9	mg/kg	08.14.17 09.22		5
Total TPH	PHC635	3670	74.9	mg/kg	08.14.17 09.22		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.14.17 09.22	
o-Terphenyl	84-15-1	95	%	70-135	08.14.17 09.22	



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-3 @ 0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-005

Date Collected: 08.07.17 10.16

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.18.17 16.40

Basis: Wet Weight

Seq Number: 3025509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0205	0.0201	mg/kg	08.19.17 04.58		10
Toluene	108-88-3	0.733	0.0201	mg/kg	08.19.17 04.58		10
Ethylbenzene	100-41-4	3.71	0.0201	mg/kg	08.19.17 04.58		10
m,p-Xylenes	179601-23-1	5.79	0.0402	mg/kg	08.19.17 04.58		10
o-Xylene	95-47-6	0.591	0.0201	mg/kg	08.19.17 04.58		10
Total Xylenes	1330-20-7	6.38	0.0201	mg/kg	08.19.17 04.58		10
Total BTEX		10.8	0.0201	mg/kg	08.19.17 04.58		10
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	80-120	08.19.17 04.58		
1,4-Difluorobenzene	540-36-3	86	%	80-120	08.19.17 04.58		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-3 @ 1'**
Lab Sample Id: 559992-006

Matrix: Soil
Date Collected: 08.07.17 10.17

Date Received: 08.10.17 16.19

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3025280

Prep Method: E300P
% Moisture:
Date Prep: 08.17.17 10.30
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2010	24.6	mg/kg	08.17.17 14.53		5

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3024776

Prep Method: TX1005P
% Moisture:
Date Prep: 08.11.17 18.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 09.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	71.9	15.0	mg/kg	08.14.17 09.22		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.14.17 09.22	U	1
Total TPH	PHC635	71.9	15.0	mg/kg	08.14.17 09.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.14.17 09.22	
o-Terphenyl	84-15-1	104	%	70-135	08.14.17 09.22	



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-3 @ 1'**
 Lab Sample Id: 559992-006

Matrix: Soil
 Date Collected: 08.07.17 10.17

Date Received: 08.10.17 16.19

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Ethylbenzene	100-41-4	0.00430	0.00200	mg/kg	08.18.17 15.27		1
m,p-Xylenes	179601-23-1	0.00632	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.00923	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0156	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0199	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90		%	80-120	08.18.17 15.27	
4-Bromofluorobenzene	460-00-4	107		%	80-120	08.18.17 15.27	



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-4 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-007

Date Collected: 08.07.17 10.23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 10.30

Basis: Wet Weight

Seq Number: 3025280

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9430	98.8	mg/kg	08.17.17 15.00		20

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	325	15.0	mg/kg	08.12.17 01.20		1
Oil Range Hydrocarbons (ORO)	PHCG2835	45.1	15.0	mg/kg	08.12.17 01.20		1
Total TPH	PHC635	370	15.0	mg/kg	08.12.17 01.20		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	08.12.17 01.20		
o-Terphenyl	84-15-1	104	%	70-135	08.12.17 01.20		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-4 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-007

Date Collected: 08.07.17 10.23

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	0.00473	0.00200	mg/kg	08.18.17 15.27		1
Ethylbenzene	100-41-4	0.0153	0.00200	mg/kg	08.18.17 15.27		1
m,p-Xylenes	179601-23-1	0.0382	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.0203	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0585	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0785	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	80-120	08.18.17 15.27		
4-Bromofluorobenzene	460-00-4	97	%	80-120	08.18.17 15.27		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-S @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-008

Date Collected: 08.07.17 10.35

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7480	49.3	mg/kg	08.17.17 17.42		10

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.12.17 01.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	63.9	14.9	mg/kg	08.12.17 01.42		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.12.17 01.42	U	1
Total TPH	PHC635	63.9	14.9	mg/kg	08.12.17 01.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.12.17 01.42	
o-Terphenyl	84-15-1	99	%	70-135	08.12.17 01.42	



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-S @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-008

Date Collected: 08.07.17 10.35

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
m,p-Xylenes	179601-23-1	0.00718	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.00589	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0131	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0131	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	80-120	08.18.17 15.27		
4-Bromofluorobenzene	460-00-4	105	%	80-120	08.18.17 15.27		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-6 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-009

Date Collected: 08.07.17 10.49

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	150	4.90	mg/kg	08.17.17 17.18		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 02.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	127	15.0	mg/kg	08.12.17 02.03		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.12.17 02.03	U	1
Total TPH	PHC635	127	15.0	mg/kg	08.12.17 02.03		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	107	%	70-135	08.12.17 02.03		
o-Terphenyl	84-15-1	104	%	70-135	08.12.17 02.03		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-6 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-009

Date Collected: 08.07.17 10.49

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
m,p-Xylenes	179601-23-1	0.00651	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.00481	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0113	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0113	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	80-120	08.18.17 15.27		
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.18.17 15.27		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-7 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-010

Date Collected: 08.07.17 11.01

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6100	49.4	mg/kg	08.17.17 17.49		10

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.12.17 02.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	662	14.9	mg/kg	08.12.17 02.24		1
Oil Range Hydrocarbons (ORO)	PHCG2835	97.9	14.9	mg/kg	08.12.17 02.24		1
Total TPH	PHC635	760	14.9	mg/kg	08.12.17 02.24		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	08.12.17 02.24		
o-Terphenyl	84-15-1	110	%	70-135	08.12.17 02.24		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-7 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-010

Date Collected: 08.07.17 11.01

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.21.17 08.00

Basis: Wet Weight

Seq Number: 3025625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00330	0.00330	mg/kg	08.21.17 10.32	U	1
Toluene	108-88-3	<0.00330	0.00330	mg/kg	08.21.17 10.32	U	1
Ethylbenzene	100-41-4	0.00507	0.00330	mg/kg	08.21.17 10.32		1
m,p-Xylenes	179601-23-1	0.0127	0.00660	mg/kg	08.21.17 10.32		1
o-Xylene	95-47-6	0.0126	0.00330	mg/kg	08.21.17 10.32		1
Total Xylenes	1330-20-7	0.0253	0.00330	mg/kg	08.21.17 10.32		1
Total BTEX		0.0304	0.00330	mg/kg	08.21.17 10.32		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90		%	80-120	08.21.17 10.32	
4-Bromofluorobenzene	460-00-4	88		%	80-120	08.21.17 10.32	



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-7 @ 1'**
Lab Sample Id: 559992-011

Matrix: Soil
Date Collected: 08.07.17 11.02

Date Received: 08.10.17 16.19

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9360	49.6	mg/kg	08.17.17 17.57		10

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 03.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	67.8	15.0	mg/kg	08.12.17 03.26		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.12.17 03.26	U	1
Total TPH	PHC635	67.8	15.0	mg/kg	08.12.17 03.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	08.12.17 03.26	
o-Terphenyl	84-15-1	102	%	70-135	08.12.17 03.26	



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-7 @ 1'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-011

Date Collected: 08.07.17 11.02

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Ethylbenzene	100-41-4	0.00378	0.00200	mg/kg	08.18.17 15.27		1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.18.17 15.27	U	1
o-Xylene	95-47-6	0.00665	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.00665	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0104	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	80-120	08.18.17 15.27		
4-Bromofluorobenzene	460-00-4	96	%	80-120	08.18.17 15.27		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-8 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-012

Date Collected: 08.07.17 11.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7010	49.2	mg/kg	08.17.17 18.05		10

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 03.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	888	15.0	mg/kg	08.12.17 03.47		1
Oil Range Hydrocarbons (ORO)	PHCG2835	113	15.0	mg/kg	08.12.17 03.47		1
Total TPH	PHC635	1000	15.0	mg/kg	08.12.17 03.47		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	08.12.17 03.47		
o-Terphenyl	84-15-1	114	%	70-135	08.12.17 03.47		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-8 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-012

Date Collected: 08.07.17 11.20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.21.17 08.00

Basis: Wet Weight

Seq Number: 3025625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00328	0.00328	mg/kg	08.21.17 10.51	U	1
Toluene	108-88-3	0.00402	0.00328	mg/kg	08.21.17 10.51		1
Ethylbenzene	100-41-4	0.0139	0.00328	mg/kg	08.21.17 10.51		1
m,p-Xylenes	179601-23-1	0.0345	0.00656	mg/kg	08.21.17 10.51		1
o-Xylene	95-47-6	0.0216	0.00328	mg/kg	08.21.17 10.51		1
Total Xylenes	1330-20-7	0.0561	0.00328	mg/kg	08.21.17 10.51		1
Total BTEX		0.0740	0.00328	mg/kg	08.21.17 10.51		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	80-120	08.21.17 10.51		
4-Bromofluorobenzene	460-00-4	88	%	80-120	08.21.17 10.51		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-8 @1'**
 Lab Sample Id: 559992-013

Matrix: Soil
 Date Collected: 08.07.17 11.22

Date Received: 08.10.17 16.19

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3025288

Prep Method: E300P

% Moisture:

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3430	24.7	mg/kg	08.17.17 18.28		5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3024776

Prep Method: TX1005P

% Moisture:

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 04.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	242	15.0	mg/kg	08.12.17 04.09		1
Oil Range Hydrocarbons (ORO)	PHCG2835	23.8	15.0	mg/kg	08.12.17 04.09		1
Total TPH	PHC635	266	15.0	mg/kg	08.12.17 04.09		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	08.12.17 04.09		
o-Terphenyl	84-15-1	105	%	70-135	08.12.17 04.09		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-8 @1'**
 Lab Sample Id: 559992-013

Matrix: Soil
 Date Collected: 08.07.17 11.22

Date Received: 08.10.17 16.19

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	0.00229	0.00200	mg/kg	08.18.17 15.27		1
Ethylbenzene	100-41-4	0.00460	0.00200	mg/kg	08.18.17 15.27		1
m,p-Xylenes	179601-23-1	0.00702	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.00832	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0153	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0222	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	80-120	08.18.17 15.27		
1,4-Difluorobenzene	540-36-3	92	%	80-120	08.18.17 15.27		



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-9 @ 0.5**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-014

Date Collected: 08.07.17 11.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.4	4.98	mg/kg	08.17.17 18.35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 04.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	860	15.0	mg/kg	08.12.17 04.30		1
Oil Range Hydrocarbons (ORO)	PHCG2835	112	15.0	mg/kg	08.12.17 04.30		1
Total TPH	PHC635	972	15.0	mg/kg	08.12.17 04.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.12.17 04.30	
o-Terphenyl	84-15-1	114	%	70-135	08.12.17 04.30	



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-9 @ 0.5**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-014

Date Collected: 08.07.17 11.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.21.17 08.00

Basis: Wet Weight

Seq Number: 3025625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00346	0.00346	mg/kg	08.21.17 11.10	U	1
Toluene	108-88-3	0.00488	0.00346	mg/kg	08.21.17 11.10		1
Ethylbenzene	100-41-4	0.0160	0.00346	mg/kg	08.21.17 11.10		1
m,p-Xylenes	179601-23-1	0.0407	0.00692	mg/kg	08.21.17 11.10		1
o-Xylene	95-47-6	0.0246	0.00346	mg/kg	08.21.17 11.10		1
Total Xylenes	1330-20-7	0.0653	0.00346	mg/kg	08.21.17 11.10		1
Total BTEX		0.0862	0.00346	mg/kg	08.21.17 11.10		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	80-120	08.21.17 11.10		
1,4-Difluorobenzene	540-36-3	90	%	80-120	08.21.17 11.10		



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-10 @ 0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-015

Date Collected: 08.07.17 11.31

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	789	4.98	mg/kg	08.17.17 18.43		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 04.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.17 04.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.12.17 04.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.17 04.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	100	%	70-135	08.12.17 04.51		
o-Terphenyl	84-15-1	97	%	70-135	08.12.17 04.51		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-10 @ 0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-015

Date Collected: 08.07.17 11.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Ethylbenzene	100-41-4	0.00208	0.00200	mg/kg	08.18.17 15.27		1
m,p-Xylenes	179601-23-1	0.00703	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.00540	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0124	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0145	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107		%	80-120	08.18.17 15.27	
1,4-Difluorobenzene	540-36-3	96		%	80-120	08.18.17 15.27	



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-10 @ 1'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-016

Date Collected: 08.07.17 11.32

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	570	4.99	mg/kg	08.17.17 18.51		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 05.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.17 05.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.12.17 05.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.17 05.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.12.17 05.12	
o-Terphenyl	84-15-1	100	%	70-135	08.12.17 05.12	



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-10 @ 1'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-016

Date Collected: 08.07.17 11.32

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
m,p-Xylenes	179601-23-1	0.00692	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.00601	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0129	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0129	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	80-120	08.18.17 15.27		
4-Bromofluorobenzene	460-00-4	100	%	80-120	08.18.17 15.27		



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-11 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-017

Date Collected: 08.07.17 11.40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3660	25.0	mg/kg	08.17.17 18.58		5

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 05.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	518	15.0	mg/kg	08.12.17 05.33		1
Oil Range Hydrocarbons (ORO)	PHCG2835	94.2	15.0	mg/kg	08.12.17 05.33		1
Total TPH	PHC635	612	15.0	mg/kg	08.12.17 05.33		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	129	%	70-135	08.12.17 05.33		
o-Terphenyl	84-15-1	122	%	70-135	08.12.17 05.33		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-11 @0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-017

Date Collected: 08.07.17 11.40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.21.17 08.00

Basis: Wet Weight

Seq Number: 3025625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00341	0.00341	mg/kg	08.21.17 11.29	U	1
Toluene	108-88-3	<0.00341	0.00341	mg/kg	08.21.17 11.29	U	1
Ethylbenzene	100-41-4	<0.00341	0.00341	mg/kg	08.21.17 11.29	U	1
m,p-Xylenes	179601-23-1	<0.00683	0.00683	mg/kg	08.21.17 11.29	U	1
o-Xylene	95-47-6	<0.00341	0.00341	mg/kg	08.21.17 11.29	U	1
Total Xylenes	1330-20-7	<0.00341	0.00341	mg/kg	08.21.17 11.29	U	1
Total BTEX		<0.00341	0.00341	mg/kg	08.21.17 11.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	80-120	08.21.17 11.29		
4-Bromofluorobenzene	460-00-4	90	%	80-120	08.21.17 11.29		



Certificate of Analytical Results 559992



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-12 @ 0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-018

Date Collected: 08.07.17 11.53

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 08.17.17 12.00

Basis: Wet Weight

Seq Number: 3025288

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.51	4.94	mg/kg	08.17.17 19.06		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 08.11.17 18.00

Basis: Wet Weight

Seq Number: 3024776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.17 05.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	907	15.0	mg/kg	08.12.17 05.54		1
Oil Range Hydrocarbons (ORO)	PHCG2835	139	15.0	mg/kg	08.12.17 05.54		1
Total TPH	PHC635	1050	15.0	mg/kg	08.12.17 05.54		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	106	%	70-135	08.12.17 05.54		
o-Terphenyl	84-15-1	117	%	70-135	08.12.17 05.54		



Certificate of Analytical Results 559992

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B com 0001H

Sample Id: **SP-12 @ 0.5'**

Matrix: Soil

Date Received: 08.10.17 16.19

Lab Sample Id: 559992-018

Date Collected: 08.07.17 11.53

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.15.17 08.45

Basis: Wet Weight

Seq Number: 3025365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.17 15.27	U	1
Toluene	108-88-3	0.00293	0.00200	mg/kg	08.18.17 15.27		1
Ethylbenzene	100-41-4	0.00680	0.00200	mg/kg	08.18.17 15.27		1
m,p-Xylenes	179601-23-1	0.0249	0.00400	mg/kg	08.18.17 15.27		1
o-Xylene	95-47-6	0.0162	0.00200	mg/kg	08.18.17 15.27		1
Total Xylenes	1330-20-7	0.0411	0.00200	mg/kg	08.18.17 15.27		1
Total BTEX		0.0508	0.00200	mg/kg	08.18.17 15.27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	80-120	08.18.17 15.27		
4-Bromofluorobenzene	460-00-4	99	%	80-120	08.18.17 15.27		



Flagging Criteria



- 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 **SQL** 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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(281) 240-4200	(281) 240-4280
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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B com 0001H

Analytical Method: Chloride by EPA 300

Seq Number: 3025280

MB Sample Id: 729464-1-BLK

Matrix: Solid

LCS Sample Id: 729464-1-BKS

Prep Method: E300P

Date Prep: 08.17.17

LCSD Sample Id: 729464-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.98	249	255	102	257	103	90-110	1	20	mg/kg	08.17.17 10:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3025288

MB Sample Id: 729472-1-BLK

Matrix: Solid

LCS Sample Id: 729472-1-BKS

Prep Method: E300P

Date Prep: 08.17.17

LCSD Sample Id: 729472-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	258	103	261	104	90-110	1	20	mg/kg	08.17.17 17:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3025280

Parent Sample Id: 559933-001

Matrix: Soil

MS Sample Id: 559933-001 S

Prep Method: E300P

Date Prep: 08.17.17

MSD Sample Id: 559933-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	269	108	272	109	90-110	1	20	mg/kg	08.17.17 11:26	

Analytical Method: Chloride by EPA 300

Seq Number: 3025280

Parent Sample Id: 559992-001

Matrix: Soil

MS Sample Id: 559992-001 S

Prep Method: E300P

Date Prep: 08.17.17

MSD Sample Id: 559992-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	60.1	249	332	109	329	108	90-110	1	20	mg/kg	08.17.17 16:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3025288

Parent Sample Id: 559992-009

Matrix: Soil

MS Sample Id: 559992-009 S

Prep Method: E300P

Date Prep: 08.17.17

MSD Sample Id: 559992-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	150	245	424	112	418	109	90-110	1	20	mg/kg	08.17.17 17:26	X

Analytical Method: Chloride by EPA 300

Seq Number: 3025288

Parent Sample Id: 559992-018

Matrix: Soil

MS Sample Id: 559992-018 S

Prep Method: E300P

Date Prep: 08.17.17

MSD Sample Id: 559992-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.51	247	274	107	277	108	90-110	1	20	mg/kg	08.17.17 19:14	



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B com 0001H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3024776

MB Sample Id: 729210-1-BLK

Matrix: Solid

LCS Sample Id: 729210-1-BKS

Prep Method: TX1005P

Date Prep: 08.11.17

LCSD Sample Id: 729210-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	893	89	879	88	70-135	2	35	mg/kg	08.14.17 09:22	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	988	99	70-135	2	35	mg/kg	08.14.17 09:22	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	109		108		109		70-135	%	08.14.17 09:22			
o-Terphenyl	110		97		98		70-135	%	08.14.17 09:22			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3024776

Parent Sample Id: 559993-006

Matrix: Soil

MS Sample Id: 559993-006 S

Prep Method: TX1005P

Date Prep: 08.11.17

MSD Sample Id: 559993-006 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	998	838	84	860	86	70-135	3	35	mg/kg	08.12.17 06:58	
Diesel Range Organics (DRO)	<15.0	998	932	93	938	94	70-135	1	35	mg/kg	08.12.17 06:58	
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane			109			111			70-135	%	08.12.17 06:58	
o-Terphenyl			100			100			70-135	%	08.12.17 06:58	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025365

MB Sample Id: 729496-1-BLK

Matrix: Solid

LCS Sample Id: 729496-1-BKS

Prep Method: SW5030B

Date Prep: 08.15.17

LCSD Sample Id: 729496-1-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	0.124	124	0.115	115	70-130	8	35	mg/kg	08.18.17 15:27	
Toluene	<0.00200	0.100	0.119	119	0.113	113	70-130	5	35	mg/kg	08.18.17 15:27	
Ethylbenzene	<0.00200	0.100	0.115	115	0.107	107	71-129	7	35	mg/kg	08.18.17 15:27	
m,p-Xylenes	<0.00400	0.200	0.235	118	0.219	110	70-135	7	35	mg/kg	08.18.17 15:27	
o-Xylene	<0.00200	0.100	0.118	118	0.110	110	71-133	7	35	mg/kg	08.18.17 15:27	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1,4-Difluorobenzene	93		112		112		80-120	%	08.18.17 15:27			
4-Bromofluorobenzene	104		106		101		80-120	%	08.18.17 15:27			



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B com 0001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025509

MB Sample Id: 729627-1-BLK

Matrix: Solid

LCS Sample Id: 729627-1-BKS

Prep Method: SW5030B

Date Prep: 08.18.17

LCSD Sample Id: 729627-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.123	122	0.115	115	70-130	7	35	mg/kg	08.18.17 20:51	
Toluene	<0.00202	0.101	0.122	121	0.113	113	70-130	8	35	mg/kg	08.18.17 20:51	
Ethylbenzene	<0.00202	0.101	0.124	123	0.115	115	71-129	8	35	mg/kg	08.18.17 20:51	
m,p-Xylenes	<0.00403	0.202	0.243	120	0.223	111	70-135	9	35	mg/kg	08.18.17 20:51	
o-Xylene	<0.00202	0.101	0.120	119	0.110	110	71-133	9	35	mg/kg	08.18.17 20:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		97		97		80-120	%	08.18.17 20:51
4-Bromofluorobenzene	87		90		89		80-120	%	08.18.17 20:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025625

MB Sample Id: 729668-1-BLK

Matrix: Solid

LCS Sample Id: 729668-1-BKS

Prep Method: SW5030B

Date Prep: 08.21.17

LCSD Sample Id: 729668-1-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	0.102	102	0.101	101	70-130	1	35	mg/kg	08.21.17 08:04	
Toluene	<0.00200	0.0998	0.101	101	0.0998	100	70-130	1	35	mg/kg	08.21.17 08:04	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.101	101	71-129	0	35	mg/kg	08.21.17 08:04	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.197	99	70-135	1	35	mg/kg	08.21.17 08:04	
o-Xylene	<0.00200	0.0998	0.0965	97	0.0967	97	71-133	0	35	mg/kg	08.21.17 08:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		97		97		80-120	%	08.21.17 08:04
4-Bromofluorobenzene	84		90		90		80-120	%	08.21.17 08:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025365

Parent Sample Id: 559993-001

Matrix: Soil

MS Sample Id: 559993-001 S

Prep Method: SW5030B

Date Prep: 08.15.17

MSD Sample Id: 559993-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.103	103	0.101	101	70-130	2	35	mg/kg	08.18.17 15:27	
Toluene	<0.00200	0.100	0.100	100	0.101	101	70-130	1	35	mg/kg	08.18.17 15:27	
Ethylbenzene	<0.00200	0.100	0.0948	95	0.0928	93	71-129	2	35	mg/kg	08.18.17 15:27	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.186	93	70-135	3	35	mg/kg	08.18.17 15:27	
o-Xylene	<0.00200	0.100	0.101	101	0.0956	96	71-133	5	35	mg/kg	08.18.17 15:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		110		80-120	%	08.18.17 15:27
4-Bromofluorobenzene	87		109		80-120	%	08.18.17 15:27



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B com 0001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025509

Parent Sample Id: 560034-002

Matrix: Soil

MS Sample Id: 560034-002 S

Prep Method: SW5030B

Date Prep: 08.18.17

MSD Sample Id: 560034-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.0185	0.0992	0.0835	66	0.0729	54	70-130	14	35	mg/kg	08.18.17 21:29	X
Toluene	0.0298	0.0992	0.0822	53	0.0711	41	70-130	14	35	mg/kg	08.18.17 21:29	X
Ethylbenzene	0.00460	0.0992	0.0744	70	0.0658	61	71-129	12	35	mg/kg	08.18.17 21:29	X
m,p-Xylenes	0.0107	0.198	0.144	67	0.127	58	70-135	13	35	mg/kg	08.18.17 21:29	X
o-Xylene	0.00380	0.0992	0.0731	70	0.0653	62	71-133	11	35	mg/kg	08.18.17 21:29	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		102		80-120	%	08.18.17 21:29
4-Bromofluorobenzene	101		99		80-120	%	08.18.17 21:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025625

Parent Sample Id: 560162-001

Matrix: Soil

MS Sample Id: 560162-001 S

Prep Method: SW5030B

Date Prep: 08.21.17

MSD Sample Id: 560162-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00712	0.101	0.0869	79	0.0733	66	70-130	17	35	mg/kg	08.21.17 08:53	X
Toluene	0.00535	0.101	0.0837	78	0.0769	72	70-130	8	35	mg/kg	08.21.17 08:53	
Ethylbenzene	0.00617	0.101	0.0816	75	0.0886	82	71-129	8	35	mg/kg	08.21.17 08:53	
m,p-Xylenes	0.0309	0.202	0.163	65	0.179	74	70-135	9	35	mg/kg	08.21.17 08:53	X
o-Xylene	0.0235	0.101	0.0812	57	0.0742	51	71-133	9	35	mg/kg	08.21.17 08:53	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		85		80-120	%	08.21.17 08:53
4-Bromofluorobenzene	92		83		80-120	%	08.21.17 08:53



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CHAIN OF CUSTODY RECORD

Page 1 of 2

LAB W.O.#: 559992

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
GA Glass Amber	TS Tedlar Bag
GC Glass Clear	ZB Zip Lock Bag
PA Plastic Amber	PC Plastic Clear
PC Plastic Clear	

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

** Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO ₃	F. MeOH	J. MCAA
C. H ₂ SO ₄	G. Na ₂ S ₂ O ₅	K. ZnAc ₂ /NaOH
D. NaOH	H. NaHSO ₄	L. Ascorbic Acid/NaOH
O.		

^ Matrix Type Codes

GW Ground Water	S. Soil/Sediment/Solid
WW 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	

REMARKS

Run BTEX: P TPH ≤ 5,000

Company: Trinity Oilfield Services & Rentals, LLC		Phone: (575)390-7208
Address: P.O. Box 2587		Fax: _____
City: Hobbs	State: NM	Zip: 88241
PM/Alt: Ben J. Argujo	Email: <u>Wade.Dittrich@xenco.com</u> benj@trinityoilfieldservices.com	
Project ID: <u>Osage 18 Fee B Com 0001H</u>	PO#: _____	
Invoice To: <u>Oxy - Wade Dittrich</u>	Quote #: _____	
Sampler Name: Duskie Bennett	Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A	

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	TPH	BTEX	Chloride	Hold Sample (CALL) on Highest TPH	Run Part Only
1	SP-1 @ 0.5'	8/7/17	1035	S		1		X	Hold	X		
2	SP-1 @ 1'		1040									
3	SP-2 @ 0.5'		1000									
4	SP-2 @ 1'		1008									
5	SP-3 @ 0.5'		1016									
6	SP-3 @ 1'		1017									
7	SP-4 @ 0.5'		1023									
8	SP-5 @ 0.5'		1035									
9	SP-6 @ 0.5'		1049									
10	SP-7 @ 0.5'		1101									

Reg. Program / Clean-up Std		STATE for Certs & Regs		QA/QC Level & Certification		EDDs		COC & Labels		Coolers Temp °C		Lab Use Only	
CTLs	TRRP DW NPDES LPST DryCle Other:	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 ERPMS XLS Other:	Match Incomplete Absent Unclear	17.0 2 3	Non-Conformances found?						
Relinquished by		Affiliation		Date		Time		Received by		Affiliation		Date	
1 <u>Duskie Bennett</u>		Trinity		8/7/17		1600		1 <u>Argujo</u>		Trinity		8/7/17	
2 <u>Wade</u>		Trinity		8/10/17		1619		2 <u>Argujo</u>		Trinity		8/10/17	
3								3					
4								4					

Xenco Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

ETS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Execution 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 and conditions unless previously agreed in writing. Terms of payment are Net 30 days, and all past due amounts will accrue interest at 1.5% per month until paid in full. All laboratory analytical data and reports generated by Xenco remain the exclusive property of Xenco until invoices for such data are paid in full. Revision Date: Nov 12, 2009



CHAIN OF CUSTODY RECORD

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7000L-C

Page 2 of 2

LAB W.O.#:

Field billable Hrs:

SS9992

* Container Type Codes

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

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

** Preservative Type Codes

A. None E. HCL I. Ice
B. HNO₃ F. MeOH J. MCAA C.
H₂SO₄ G. Na₂SO₄ K. ZnAc/NaOH
D. NaOH H. NaHSO₄ L. Ascorbic Acid/NaOH
O. _____

^ Matrix Type Codes

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

REMARKS

Run BTEX if TPH < 5,000

Company: Trinity Oilfield Services & Rentals, LLC Phone: (575)390-7208
Address: P.O. Box 2587 Fax: _____
City: Hobbs State: NM Zip: 88241
PM/ATN: Ben J. Arguio Email: Wade.Dittrich@xenco.com
Project ID: Usage 18 Fee B Com 0001H PO#: _____
Invoice To: Oxy. Wade Dittrich Quote #: _____
Sampler Name: Duskie Bennett Circle One Event: Daily Weekly Monthly Quarterly
Semi-Annual Annual N/A

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of Containers	Example Volatiles by 8260	# Cost	Lab Only
1	SP-7@1'	8/7/17	1102	S			1	TPH (8015W) TX1005		X
2	SP-8@0.5'		1120					BTEX		X
3	SP-8@1'		1122					Chloride		X
4	SP-9@0.5'		1125							
5	SP-10@0.5'		1131							
6	SP-10@1'		1132							
7	SP-11@0.5'		1140							
8	SP-12@0.5'		1153							
9										
0										

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/A
CLTs TRRP DW NPDES LPST Dry/Cln Other	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 Absent Unclear	17.0 2 3	Non-Conformances found?	— — —
Ratified by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1 <u>Wade Dittrich</u>	<u>Trinity</u>	<u>8/7/17</u>	<u>1600</u>	<u>Wade Dittrich</u>	<u>Trinity</u>	<u>8/7/17</u>	<u>1600</u>
2 <u>Wade Dittrich</u>	<u>Trinity</u>	<u>8/10/17</u>	<u>1619</u>	<u>Wade Dittrich</u>	<u>Trinity</u>	<u>8/10/17</u>	<u>1619</u>
3							
4							

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FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8525 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

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Revision Date: Nov 12, 2009

C.O.C. Serial #



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CHAIN OF CUSTODY RECORD

Page

1 of 2

559992

LAB W.O.#:

Field billable Hrs :

* Container Type Codes

VA Vial Amber ES Encase Sampler
VC Vial Clear TS TensCore Sampler
YP Vial Pre-preserved AC Air Canister
GA Glass Amber TB Teflon Bag
GC Glass Clear ZS Zip Lock Bag
PA Plastic Amber PC Plastic Clear
Other _____

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

** Preservative Type Codes

A. None E. HCL I. Ice C.
B. HNO₃ F. MeOH J. MCAA
H₂SO₄ G. Na₂S₂O₅ K. ZnAc₂/NaOH
D. NaOH H. NaH₂SO₄ L. Ascorbic Acid/NaOH
O. _____

^ Matrix Type Codes

GW Ground Water S Soil/Sediment/Solid
WW 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

Run BTEX: P TPH ≤ 5,000

Company: Trinity Oilfield Services & Rentals, LLC Phone: (575)390-7208
Address: P.O. Box 2587 Fax: _____
City: Hobbs State: NM Zip: 88241
PM/Attn: Ben J. Arguijo Email: Wade.Diltrich@xenco.com
ben@trinityoilfieldservices.com

TAT Work Days = D Need results by: _____ Time: _____
Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 6D 7D 10D 14D Other _____

Project ID: C-Stage 18 Fee B Com 000114
Invoice To: Oxy - Wade Diltrich
Sampler Name: Duskie Bennett
Circle One Event: Daily Weekly Monthly Quarterly
Semi-Annual Annual N/A

Analyses Requested
Cont Type* VC GC GC GC
Pres Type* | | |
Example Volatiles by 8260
TPH 80150 TX1005
BTEX
Chloride
Hold Sample (CALL) Run FAH Only on Highest TPH

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity	OK (Y/N)	Total # of containers
1	SP-1 @ 0.5'	8/7/17	1038	S				1
2	SP-1 @ 1'		8940					
3	SP-2 @ 0.5'		1000					
4	SP-2 @ 1'		1008					
5	SP-3 @ 0.5'		1016					
6	SP-3 @ 1'		1017					
7	SP-4 @ 0.5'		1023					
8	SP-5 @ 0.5'		1035					
9	SP-6 @ 0.5'		1049					
0	SP-7 @ 0.5'		1101					

Temp: 3.2 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.0

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDOs	COC & Labels	Coolers Temp	Lab Use Only	
CTLs TRRP OW NPDES LPST DryCle Other:	PL 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 Absent Unclear	1 2 3	Non-Conformances found? Samples intact upon arrival? Received on Wet Ice? Labeled with proper preservatives? Received within holding time? Custody seals intact? VOCs rec'd w/o headspace? Proper containers used? pH verified-acceptable, and VOCs? Received on time to meet HTs?	
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Wade Diltrich	Trinity	8/7/17	1600	Trinity	8/7/17	1600
2	Wade Diltrich	Trinity	8/10/17	1619	Trinity	8/10/17	4:19
3					Xenco	8-11-17	13:00
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 Phoenix 602-437-0330
FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

C.O.C. Serial #

Execution 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 and conditions unless previously agreed in writing. 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 property of Xenco until invoices for such data are paid in full. Revision Date: Nov 12, 2009.



Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79735 (432)563-1800

CHAIN OF CUSTODY RECORD

Page 2 of 2

LAB W.O #:

Field billable Hrs:

559992

* Container Type Codes

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

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

** Preservative Type Codes

A. None E. HCL I. Ice C.
B. HNO₃ F. MeOH J. MCAA
H₂SO₄ G. Na₂S₂O₈ K. ZnAc₂/NaOH
D. NaOH H. NaHSO₄ L. Ascorbic Acid/NaOH
O. _____

^ Matrix Type Codes

GW Ground Water S. Soil/Sediment/Solid
WW 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 S. Blood
SL Sludge
Other _____

REMARKS

Run BTEX if TPH < 5,000

Temp: 3.2 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.0

Company: Trinity Oilfield Services & Rentals, LLC Phone: (575)390-7208
Address: P.O. Box 2587 Fax: _____
City: Hobbs State: NM Zip: 88241
PM/Attn: Ben J. Arguljo Email: Wade.Dittrich@xenco.com
Project ID: Usage 18 Fee B Com 0001H PO#: _____
Invoice To: Org - Wade Dittrich Quote #: _____
Sampler Name: Duskie Bennett Circle One Event: Daily Weekly Monthly Quarterly
Semi-Annual Annual N/A

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of Containers
1	SP-7@1'	8/7/17	1102	S			1
2	SP-8@0.5'		1120				
3	SP-8@1'		1122				
4	SP-9@0.5'		1125				
5	SP-10@0.5'		1131				
6	SP-10@1'		1132				
7	SP-11@0.5'		1140				
8	SP-12@0.5'		1153				
9							
0							

ANALYSES REQUESTED											
Cont Type ^	GC	GC	GC								
VC											
Pres Type **	I	I	I								
Example Volatiles by 8260	TPH 8015M/TX1005	BTEX	Chloride								
# Cont	Lab Only										

Reg. Program / Clean-up Std STATE for Certs & Regs QA/QC Level & Certification EDDs CQC & Labels Coolers Temp °C Lab Use Only YES NO N/A
CTLs TRRP DW NPDES LPST DryCh Other FL TX GA NC SC NJ PA OK 1 2 3 4 CLP AFCEE QAPP NELAC ADAPT SEDD ERPIMS Match Incomplete Absent Unclear 17.0 2 3
LA AL NM Other DoD-ELAP Other XLS Other
Relinquished by Affiliation Date Time Received by Affiliation Date Time
1 Aluska Bennett Trinity 8/7/17 1600
2 Trinity 8/14/17 1619
3
4

Temp: 3.2 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.0

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330
FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

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Prelogin/Nonconformance Report- Sample Log-In

Client: Trinity Oilfield Services & Rentals, LLC

Date/ Time Received: 08/10/2017 04:19:00 PM

Work Order #: 559992

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	No
#21 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: 08/11/2017

Checklist reviewed by:

Holly Taylor

Date: 08/14/2017



Certificate of Analysis Summary 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage 18 Fee B Com 0001H



Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Mon Sep-11-17 09:23 am

Report Date: 22-SEP-17

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	562530-001	562530-002	562530-003	562530-004	562530-005	562530-006
	<i>Field Id:</i>	SP-2 @ 1.5'	SP-2 @ 4.5'	SP-3 @ 1.5'	SP-3 @ 2.5'	SP-4 @ 1'	SP-4 @ 3'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Sep-06-17 10:35	Sep-06-17 11:03	Sep-06-17 11:20	Sep-06-17 11:44	Sep-06-17 12:05	Sep-06-17 12:42
BTEX by EPA 8021B	<i>Extracted:</i>	Sep-13-17 13:00	Sep-14-17 08:37	Sep-13-17 13:00	Sep-13-17 13:00	Sep-13-17 13:00	Sep-13-17 13:00
	<i>Analyzed:</i>	Sep-14-17 01:37	Sep-14-17 10:50	Sep-14-17 01:54	Sep-14-17 02:13	Sep-14-17 02:32	Sep-14-17 02:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		0.00727 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		0.155 0.00198	<0.00199 0.00199	0.00437 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		0.198 0.00397	<0.00398 0.00398	0.00737 0.00402	<0.00403 0.00403	<0.00401 0.00401	<0.00399 0.00399
o-Xylene		0.100 0.00198	<0.00199 0.00199	0.00403 0.00201	0.00782 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		0.298 0.00198	<0.00199 0.00199	0.0114 0.00201	0.00782 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		0.460 0.00198	<0.00199 0.00199	0.0158 0.00201	0.00782 0.00202	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Sep-19-17 10:05	Sep-19-17 10:05	Sep-19-17 10:05	Sep-19-17 10:05	Sep-19-17 10:05	Sep-19-17 10:05
	<i>Analyzed:</i>	Sep-19-17 14:54	Sep-19-17 15:01	Sep-19-17 15:22	Sep-19-17 15:29	Sep-19-17 15:50	Sep-19-17 15:57
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		869 5.00	217 5.00	526 4.99	163 4.96	2250 25.0	127 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00
	<i>Analyzed:</i>	Sep-13-17 10:14	Sep-13-17 10:34	Sep-13-17 11:35	Sep-13-17 11:55	Sep-13-17 12:15	Sep-13-17 12:36
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		737 74.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Diesel Range Organics (DRO)		8860 74.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Oil Range Hydrocarbons (ORO)		1130 74.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Total TPH		10700 74.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager



Certificate of Analysis Summary 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage 18 Fee B Com 0001H



Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Mon Sep-11-17 09:23 am

Report Date: 22-SEP-17

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	562530-007	562530-008	562530-009	562530-010	562530-011	562530-012
	<i>Field Id:</i>	SP-5 @ 1'	SP-5 @ 2.5'	SP-5 @ 5.5'	SP-7 @ 1.5'	SP-7 @ 2.5'	SP-8 @ 1.5'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Sep-06-17 13:01	Sep-06-17 13:12	Sep-06-17 13:22	Sep-06-17 13:50	Sep-06-17 14:00	Sep-06-17 14:23
BTEX by EPA 8021B	<i>Extracted:</i>	Sep-14-17 08:37	Sep-14-17 08:37	Sep-14-17 08:37	Sep-14-17 08:37	Sep-14-17 08:37	Sep-14-17 08:37
	<i>Analyzed:</i>	Sep-14-17 13:01	Sep-14-17 13:20	Sep-14-17 14:55	Sep-14-17 15:13	Sep-14-17 15:52	Sep-14-17 16:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Sep-19-17 10:05	Sep-19-17 10:05	Sep-19-17 10:05	Sep-19-17 10:05	Sep-19-17 10:05	Sep-20-17 14:50
	<i>Analyzed:</i>	Sep-19-17 16:04	Sep-19-17 16:11	Sep-19-17 16:18	Sep-19-17 16:25	Sep-19-17 16:32	Sep-20-17 17:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		858 5.00	4990 24.8	290 5.00	2670 24.9	89.9 5.00	2420 24.9
TPH By SW8015 Mod	<i>Extracted:</i>	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00
	<i>Analyzed:</i>	Sep-13-17 12:56	Sep-13-17 13:17	Sep-13-17 13:37	Sep-13-17 13:58	Sep-13-17 15:00	Sep-13-17 15:20
	<i>Units/RL:</i>	mg/kg RL	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	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9

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Holly Taylor
Project Manager



Certificate of Analysis Summary 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage 18 Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Mon Sep-11-17 09:23 am

Report Date: 22-SEP-17

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	562530-013	562530-014	562530-015	562530-016	562530-017	
	<i>Field Id:</i>	SP-8 @ 3'	SP-8 @ 4'	SP-10 @ 1.5'	SP-10 @ 4'	SP-11 @ 1.5'	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Sep-06-17 14:35	Sep-06-17 14:53	Sep-06-17 15:10	Sep-06-17 15:37	Sep-06-17 15:54	
BTEX by EPA 8021B	<i>Extracted:</i>	Sep-14-17 08:37	Sep-14-17 08:37	Sep-14-17 16:00	Sep-14-17 16:00	Sep-14-17 08:37	
	<i>Analyzed:</i>	Sep-14-17 15:33	Sep-14-17 16:30	Sep-15-17 09:17	Sep-15-17 09:34	Sep-14-17 17:07	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00351 0.00351	<0.00366 0.00366	<0.00200 0.00200	
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00351 0.00351	<0.00366 0.00366	<0.00200 0.00200	
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00351 0.00351	<0.00366 0.00366	<0.00200 0.00200	
m,p-Xylenes		<0.00402 0.00402	<0.00404 0.00404	<0.00702 0.00702	<0.00733 0.00733	<0.00401 0.00401	
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00351 0.00351	<0.00366 0.00366	<0.00200 0.00200	
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00351 0.00351	<0.00366 0.00366	<0.00200 0.00200	
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00351 0.00351	<0.00366 0.00366	<0.00200 0.00200	
Chloride by EPA 300	<i>Extracted:</i>	Sep-20-17 14:50	Sep-20-17 14:50	Sep-20-17 14:50	Sep-20-17 14:50	Sep-20-17 14:50	
	<i>Analyzed:</i>	Sep-20-17 17:32	Sep-20-17 17:39	Sep-20-17 17:46	Sep-20-17 17:52	Sep-20-17 18:13	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		3050 24.9	60.9 4.97	227 4.95	60.3 4.94	102 4.99	
TPH By SW8015 Mod	<i>Extracted:</i>	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	Sep-13-17 08:00	
	<i>Analyzed:</i>	Sep-13-17 15:40	Sep-13-17 16:01	Sep-13-17 16:22	Sep-13-17 16:42	Sep-13-17 17:03	
	<i>Units/RL:</i>	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	<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	<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	
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	

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Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager

Analytical Report 562530
for
Trinity Oilfield Services & Rentals, LLC

Project Manager: Ben Arguijo

Osage 18 Fee B Com 0001H

22-SEP-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



22-SEP-17

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

Reference: XENCO Report No(s): **562530**
Osage 18 Fee B Com 0001H
Project Address: NM

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) 562530. 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. 562530 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,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-2 @ 1.5'	S	09-06-17 10:35		562530-001
SP-2 @ 4.5'	S	09-06-17 11:03		562530-002
SP-3 @ 1.5'	S	09-06-17 11:20		562530-003
SP-3 @ 2.5'	S	09-06-17 11:44		562530-004
SP-4 @ 1'	S	09-06-17 12:05		562530-005
SP-4 @ 3'	S	09-06-17 12:42		562530-006
SP-5 @ 1'	S	09-06-17 13:01		562530-007
SP-5 @ 2.5'	S	09-06-17 13:12		562530-008
SP-5 @ 5.5'	S	09-06-17 13:22		562530-009
SP-7 @ 1.5'	S	09-06-17 13:50		562530-010
SP-7 @ 2.5'	S	09-06-17 14:00		562530-011
SP-8 @ 1.5'	S	09-06-17 14:23		562530-012
SP-8 @ 3'	S	09-06-17 14:35		562530-013
SP-8 @ 4'	S	09-06-17 14:53		562530-014
SP-10 @ 1.5'	S	09-06-17 15:10		562530-015
SP-10 @ 4'	S	09-06-17 15:37		562530-016
SP-11 @ 1.5'	S	09-06-17 15:54		562530-017



CASE NARRATIVE

Client Name: Trinity Oilfield Services & Rentals, LLC

Project Name: Osage 18 Fee B Com 0001H

Project ID:
Work Order Number(s): 562530

Report Date: 22-SEP-17
Date Received: 09/11/2017

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3027595 BTEX by EPA 8021B

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

Batch: LBA-3027682 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 562530-015.

Batch: LBA-3027739 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 562530-010.



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-2 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-001

Date Collected: 09.06.17 10.35

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	869	5.00	mg/kg	09.19.17 14.54		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	737	74.9	mg/kg	09.13.17 10.14		5
Diesel Range Organics (DRO)	C10C28DRO	8860	74.9	mg/kg	09.13.17 10.14		5
Oil Range Hydrocarbons (ORO)	PHCG2835	1130	74.9	mg/kg	09.13.17 10.14		5
Total TPH	PHC635	10700	74.9	mg/kg	09.13.17 10.14		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	09.13.17 10.14		
o-Terphenyl	84-15-1	121	%	70-135	09.13.17 10.14		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-2 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-001

Date Collected: 09.06.17 10.35

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.13.17 13.00

Basis: Wet Weight

Seq Number: 3027595

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.14.17 01.37	U	1
Toluene	108-88-3	0.00727	0.00198	mg/kg	09.14.17 01.37		1
Ethylbenzene	100-41-4	0.155	0.00198	mg/kg	09.14.17 01.37		1
m,p-Xylenes	179601-23-1	0.198	0.00397	mg/kg	09.14.17 01.37		1
o-Xylene	95-47-6	0.100	0.00198	mg/kg	09.14.17 01.37		1
Total Xylenes	1330-20-7	0.298	0.00198	mg/kg	09.14.17 01.37		1
Total BTEX		0.460	0.00198	mg/kg	09.14.17 01.37		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	80-120	09.14.17 01.37		
4-Bromofluorobenzene	460-00-4	117	%	80-120	09.14.17 01.37		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-2 @ 4.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-002

Date Collected: 09.06.17 11.03

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	217	5.00	mg/kg	09.19.17 15.01		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 10.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 10.34	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 10.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 10.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	09.13.17 10.34		
o-Terphenyl	84-15-1	103	%	70-135	09.13.17 10.34		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-2 @ 4.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-002

Date Collected: 09.06.17 11.03

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.17 10.50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.17 10.50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.17 10.50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.17 10.50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.17 10.50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.17 10.50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.17 10.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	80-120	09.14.17 10.50		
1,4-Difluorobenzene	540-36-3	94	%	80-120	09.14.17 10.50		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-3 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-003

Date Collected: 09.06.17 11.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	526	4.99	mg/kg	09.19.17 15.22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 11.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 11.35	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 11.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 11.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	09.13.17 11.35		
o-Terphenyl	84-15-1	104	%	70-135	09.13.17 11.35		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-3 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-003

Date Collected: 09.06.17 11.20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.13.17 13.00

Basis: Wet Weight

Seq Number: 3027595

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.14.17 01.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.14.17 01.54	U	1
Ethylbenzene	100-41-4	0.00437	0.00201	mg/kg	09.14.17 01.54		1
m,p-Xylenes	179601-23-1	0.00737	0.00402	mg/kg	09.14.17 01.54		1
o-Xylene	95-47-6	0.00403	0.00201	mg/kg	09.14.17 01.54		1
Total Xylenes	1330-20-7	0.0114	0.00201	mg/kg	09.14.17 01.54		1
Total BTEX		0.0158	0.00201	mg/kg	09.14.17 01.54		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90		%	80-120	09.14.17 01.54	
1,4-Difluorobenzene	540-36-3	89		%	80-120	09.14.17 01.54	



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-3 @ 2.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-004

Date Collected: 09.06.17 11.44

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	163	4.96	mg/kg	09.19.17 15.29		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 11.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 11.55	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 11.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 11.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	09.13.17 11.55		
o-Terphenyl	84-15-1	104	%	70-135	09.13.17 11.55		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-3 @ 2.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-004

Date Collected: 09.06.17 11.44

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.13.17 13.00

Basis: Wet Weight

Seq Number: 3027595

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.14.17 02.13	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.14.17 02.13	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.14.17 02.13	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.14.17 02.13	U	1
o-Xylene	95-47-6	0.00782	0.00202	mg/kg	09.14.17 02.13		1
Total Xylenes	1330-20-7	0.00782	0.00202	mg/kg	09.14.17 02.13		1
Total BTEX		0.00782	0.00202	mg/kg	09.14.17 02.13		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	80-120	09.14.17 02.13		
1,4-Difluorobenzene	540-36-3	92	%	80-120	09.14.17 02.13		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-4 @ 1'**
 Lab Sample Id: 562530-005

Matrix: Soil
 Date Collected: 09.06.17 12.05

Date Received: 09.11.17 09.23

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MNV

Seq Number: 3028137

Prep Method: E300P

% Moisture:

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2250	25.0	mg/kg	09.19.17 15.50		5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3027618

Prep Method: TX1005P

% Moisture:

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 12.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 12.15	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 12.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 12.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	09.13.17 12.15		
o-Terphenyl	84-15-1	101	%	70-135	09.13.17 12.15		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-4 @ 1'**
 Lab Sample Id: 562530-005

Matrix: Soil
 Date Collected: 09.06.17 12.05

Date Received: 09.11.17 09.23

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.13.17 13.00

Basis: Wet Weight

Seq Number: 3027595

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.17 02.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.17 02.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.17 02.32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.14.17 02.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.17 02.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.17 02.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.17 02.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	83	%	80-120	09.14.17 02.32		
1,4-Difluorobenzene	540-36-3	95	%	80-120	09.14.17 02.32		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-4 @ 3'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-006

Date Collected: 09.06.17 12.42

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	4.95	mg/kg	09.19.17 15.57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.13.17 12.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.13.17 12.36	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	09.13.17 12.36	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.13.17 12.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	09.13.17 12.36		
o-Terphenyl	84-15-1	109	%	70-135	09.13.17 12.36		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-4 @ 3'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-006

Date Collected: 09.06.17 12.42

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.13.17 13.00

Basis: Wet Weight

Seq Number: 3027595

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.17 02.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.17 02.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.17 02.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.14.17 02.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.17 02.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.17 02.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.17 02.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	83	%	80-120	09.14.17 02.51		
1,4-Difluorobenzene	540-36-3	93	%	80-120	09.14.17 02.51		



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-5 @ 1'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-007

Date Collected: 09.06.17 13.01

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	858	5.00	mg/kg	09.19.17 16.04		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 12.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 12.56	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 12.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 12.56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-135	09.13.17 12.56		
o-Terphenyl	84-15-1	102	%	70-135	09.13.17 12.56		



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-5 @ 1'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-007

Date Collected: 09.06.17 13.01

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.14.17 13.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.14.17 13.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.14.17 13.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.14.17 13.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.14.17 13.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.14.17 13.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.14.17 13.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	82	%	80-120	09.14.17 13.01		
1,4-Difluorobenzene	540-36-3	100	%	80-120	09.14.17 13.01		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-5 @ 2.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-008

Date Collected: 09.06.17 13.12

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4990	24.8	mg/kg	09.19.17 16.11		5

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 13.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 13.17	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 13.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 13.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	09.13.17 13.17		
o-Terphenyl	84-15-1	103	%	70-135	09.13.17 13.17		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-5 @ 2.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-008

Date Collected: 09.06.17 13.12

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.14.17 13.20	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.14.17 13.20	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.14.17 13.20	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.14.17 13.20	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.14.17 13.20	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.14.17 13.20	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.14.17 13.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	83	%	80-120	09.14.17 13.20		
1,4-Difluorobenzene	540-36-3	97	%	80-120	09.14.17 13.20		



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-5 @ 5.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-009

Date Collected: 09.06.17 13.22

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	290	5.00	mg/kg	09.19.17 16.18		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 13.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 13.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 13.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 13.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.13.17 13.37	
o-Terphenyl	84-15-1	101	%	70-135	09.13.17 13.37	



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-5 @ 5.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-009

Date Collected: 09.06.17 13.22

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.17 14.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.17 14.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.17 14.55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.14.17 14.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.17 14.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.17 14.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.17 14.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	80	%	80-120	09.14.17 14.55		
1,4-Difluorobenzene	540-36-3	93	%	80-120	09.14.17 14.55		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-7 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-010

Date Collected: 09.06.17 13.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2670	24.9	mg/kg	09.19.17 16.25		5

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 13.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 13.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 13.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 13.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	09.13.17 13.58		
o-Terphenyl	84-15-1	103	%	70-135	09.13.17 13.58		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-7 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-010

Date Collected: 09.06.17 13.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.14.17 15.13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.14.17 15.13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.14.17 15.13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.14.17 15.13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.14.17 15.13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.14.17 15.13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.14.17 15.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	30	%	80-120	09.14.17 15.13	**	
1,4-Difluorobenzene	540-36-3	99	%	80-120	09.14.17 15.13		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-7 @ 2.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-011

Date Collected: 09.06.17 14.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.19.17 10.05

Basis: Wet Weight

Seq Number: 3028137

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.9	5.00	mg/kg	09.19.17 16.32		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 15.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 15.00	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 15.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 15.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-135	09.13.17 15.00		
o-Terphenyl	84-15-1	103	%	70-135	09.13.17 15.00		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-7 @ 2.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-011

Date Collected: 09.06.17 14.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.17 15.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.17 15.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.17 15.52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.14.17 15.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.17 15.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.17 15.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.17 15.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	82	%	80-120	09.14.17 15.52		
1,4-Difluorobenzene	540-36-3	100	%	80-120	09.14.17 15.52		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-8 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-012

Date Collected: 09.06.17 14.23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.20.17 14.50

Basis: Wet Weight

Seq Number: 3028327

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2420	24.9	mg/kg	09.20.17 17.11		5

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.13.17 15.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.13.17 15.20	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	09.13.17 15.20	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.13.17 15.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	121	%	70-135	09.13.17 15.20		
o-Terphenyl	84-15-1	122	%	70-135	09.13.17 15.20		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-8 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-012

Date Collected: 09.06.17 14.23

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.17 16.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.17 16.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.17 16.11	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.14.17 16.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.17 16.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.17 16.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.17 16.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	80-120	09.14.17 16.11		
4-Bromofluorobenzene	460-00-4	82	%	80-120	09.14.17 16.11		



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-8 @ 3'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-013

Date Collected: 09.06.17 14.35

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.20.17 14.50

Basis: Wet Weight

Seq Number: 3028327

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3050	24.9	mg/kg	09.20.17 17.32		5

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 15.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 15.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 15.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 15.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	09.13.17 15.40		
o-Terphenyl	84-15-1	104	%	70-135	09.13.17 15.40		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-8 @ 3'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-013

Date Collected: 09.06.17 14.35

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.14.17 15.33	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.14.17 15.33	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.14.17 15.33	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.14.17 15.33	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.14.17 15.33	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.14.17 15.33	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.14.17 15.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	80-120	09.14.17 15.33		
4-Bromofluorobenzene	460-00-4	86	%	80-120	09.14.17 15.33		



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-8 @ 4'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-014

Date Collected: 09.06.17 14.53

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.20.17 14.50

Basis: Wet Weight

Seq Number: 3028327

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.9	4.97	mg/kg	09.20.17 17.39		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 16.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 16.01	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 16.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 16.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.13.17 16.01	
o-Terphenyl	84-15-1	101	%	70-135	09.13.17 16.01	



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-8 @ 4'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-014

Date Collected: 09.06.17 14.53

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.14.17 16.30	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.14.17 16.30	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.14.17 16.30	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	09.14.17 16.30	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.14.17 16.30	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.14.17 16.30	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.14.17 16.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	82	%	80-120	09.14.17 16.30		
1,4-Difluorobenzene	540-36-3	98	%	80-120	09.14.17 16.30		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-10 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-015

Date Collected: 09.06.17 15.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.20.17 14.50

Basis: Wet Weight

Seq Number: 3028327

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	227	4.95	mg/kg	09.20.17 17.46		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 16.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 16.22	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 16.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 16.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	09.13.17 16.22		
o-Terphenyl	84-15-1	103	%	70-135	09.13.17 16.22		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-10 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-015

Date Collected: 09.06.17 15.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 16.00

Basis: Wet Weight

Seq Number: 3027682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00351	0.00351	mg/kg	09.15.17 09.17	U	1
Toluene	108-88-3	<0.00351	0.00351	mg/kg	09.15.17 09.17	U	1
Ethylbenzene	100-41-4	<0.00351	0.00351	mg/kg	09.15.17 09.17	U	1
m,p-Xylenes	179601-23-1	<0.00702	0.00702	mg/kg	09.15.17 09.17	U	1
o-Xylene	95-47-6	<0.00351	0.00351	mg/kg	09.15.17 09.17	U	1
Total Xylenes	1330-20-7	<0.00351	0.00351	mg/kg	09.15.17 09.17	U	1
Total BTEX		<0.00351	0.00351	mg/kg	09.15.17 09.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	51	%	80-120	09.15.17 09.17	**	
1,4-Difluorobenzene	540-36-3	107	%	80-120	09.15.17 09.17		



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-10 @ 4'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-016

Date Collected: 09.06.17 15.37

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.20.17 14.50

Basis: Wet Weight

Seq Number: 3028327

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.3	4.94	mg/kg	09.20.17 17.52		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 16.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 16.42	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 16.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 16.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	09.13.17 16.42		
o-Terphenyl	84-15-1	103	%	70-135	09.13.17 16.42		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-10 @ 4'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-016

Date Collected: 09.06.17 15.37

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 16.00

Basis: Wet Weight

Seq Number: 3027682

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00366	0.00366	mg/kg	09.15.17 09.34	U	1
Toluene	108-88-3	<0.00366	0.00366	mg/kg	09.15.17 09.34	U	1
Ethylbenzene	100-41-4	<0.00366	0.00366	mg/kg	09.15.17 09.34	U	1
m,p-Xylenes	179601-23-1	<0.00733	0.00733	mg/kg	09.15.17 09.34	U	1
o-Xylene	95-47-6	<0.00366	0.00366	mg/kg	09.15.17 09.34	U	1
Total Xylenes	1330-20-7	<0.00366	0.00366	mg/kg	09.15.17 09.34	U	1
Total BTEX		<0.00366	0.00366	mg/kg	09.15.17 09.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	85	%	80-120	09.15.17 09.34		
1,4-Difluorobenzene	540-36-3	97	%	80-120	09.15.17 09.34		



Certificate of Analytical Results 562530



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-11 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-017

Date Collected: 09.06.17 15.54

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MNV

% Moisture:

Analyst: MNV

Date Prep: 09.20.17 14.50

Basis: Wet Weight

Seq Number: 3028327

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	102	4.99	mg/kg	09.20.17 18.13		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 09.13.17 08.00

Basis: Wet Weight

Seq Number: 3027618

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.13.17 17.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.13.17 17.03	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	09.13.17 17.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.13.17 17.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	09.13.17 17.03		
o-Terphenyl	84-15-1	102	%	70-135	09.13.17 17.03		



Certificate of Analytical Results 562530

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 0001H

Sample Id: **SP-11 @ 1.5'**

Matrix: Soil

Date Received: 09.11.17 09.23

Lab Sample Id: 562530-017

Date Collected: 09.06.17 15.54

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 09.14.17 08.37

Basis: Wet Weight

Seq Number: 3027739

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.14.17 17.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.14.17 17.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.14.17 17.07	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.14.17 17.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.14.17 17.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.14.17 17.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.14.17 17.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	80-120	09.14.17 17.07		
4-Bromofluorobenzene	460-00-4	85	%	80-120	09.14.17 17.07		



Flagging Criteria



- 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 **SQL** 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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Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B Com 0001H

Analytical Method: Chloride by EPA 300

Seq Number: 3028137

MB Sample Id: 731178-1-BLK

Matrix: Solid

LCS Sample Id: 731178-1-BKS

Prep Method: E300P

Date Prep: 09.19.17

LCSD Sample Id: 731178-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	260	104	259	104	90-110	0	20	mg/kg	09.19.17 13:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3028327

MB Sample Id: 731284-1-BLK

Matrix: Solid

LCS Sample Id: 731284-1-BKS

Prep Method: E300P

Date Prep: 09.20.17

LCSD Sample Id: 731284-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	268	107	268	107	90-110	0	20	mg/kg	09.20.17 16:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3028137

Parent Sample Id: 562530-002

Matrix: Soil

MS Sample Id: 562530-002 S

Prep Method: E300P

Date Prep: 09.19.17

MSD Sample Id: 562530-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	217	250	461	98	466	100	90-110	1	20	mg/kg	09.19.17 15:08	

Analytical Method: Chloride by EPA 300

Seq Number: 3028137

Parent Sample Id: 563055-001

Matrix: Soil

MS Sample Id: 563055-001 S

Prep Method: E300P

Date Prep: 09.19.17

MSD Sample Id: 563055-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11000	248	11200	81	11200	81	90-110	0	20	mg/kg	09.19.17 13:31	X

Analytical Method: Chloride by EPA 300

Seq Number: 3028327

Parent Sample Id: 562530-012

Matrix: Soil

MS Sample Id: 562530-012 S

Prep Method: E300P

Date Prep: 09.20.17

MSD Sample Id: 562530-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2420	249	2660	96	2650	92	90-110	0	20	mg/kg	09.20.17 17:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3028327

Parent Sample Id: 562800-018

Matrix: Soil

MS Sample Id: 562800-018 S

Prep Method: E300P

Date Prep: 09.20.17

MSD Sample Id: 562800-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	266	106	266	106	90-110	0	20	mg/kg	09.20.17 18:55	



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B Com 0001H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3027618

MB Sample Id: 730908-1-BLK

Matrix: Solid

LCS Sample Id: 730908-1-BKS

Prep Method: TX1005P

Date Prep: 09.13.17

LCSD Sample Id: 730908-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1040	104	970	97	70-135	7	35	mg/kg	09.13.17 09:34	
Diesel Range Organics (DRO)	<15.0	1000	1130	113	1060	106	70-135	6	35	mg/kg	09.13.17 09:34	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	114		118		107		70-135	%	09.13.17 09:34			
o-Terphenyl	115		117		103		70-135	%	09.13.17 09:34			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3027618

Parent Sample Id: 562530-002

Matrix: Soil

MS Sample Id: 562530-002 S

Prep Method: TX1005P

Date Prep: 09.13.17

MSD Sample Id: 562530-002 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	998	985	99	948	95	70-135	4	35	mg/kg	09.13.17 10:54	
Diesel Range Organics (DRO)	<15.0	998	1120	112	1050	105	70-135	6	35	mg/kg	09.13.17 10:54	
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1-Chlorooctane			106			103		70-135		%	09.13.17 10:54	
o-Terphenyl			105			100		70-135		%	09.13.17 10:54	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3027595

MB Sample Id: 730911-1-BLK

Matrix: Solid

LCS Sample Id: 730911-1-BKS

Prep Method: SW5030B

Date Prep: 09.13.17

LCSD Sample Id: 730911-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.104	103	0.100	100	70-130	4	35	mg/kg	09.13.17 19:40	
Toluene	<0.00202	0.101	0.0996	99	0.0952	95	70-130	5	35	mg/kg	09.13.17 19:40	
Ethylbenzene	<0.00202	0.101	0.0994	98	0.0948	95	71-129	5	35	mg/kg	09.13.17 19:40	
m,p-Xylenes	<0.00403	0.202	0.194	96	0.184	92	70-135	5	35	mg/kg	09.13.17 19:40	
o-Xylene	<0.00202	0.101	0.0938	93	0.0890	89	71-133	5	35	mg/kg	09.13.17 19:40	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1,4-Difluorobenzene	91		90		92		80-120	%	09.13.17 19:40			
4-Bromofluorobenzene	82		86		86		80-120	%	09.13.17 19:40			



Trinity Oilfield Services & Rentals, LLC
Osage 18 Fee B Com 0001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3027739

MB Sample Id: 730960-1-BLK

Matrix: Solid

LCS Sample Id: 730960-1-BKS

Prep Method: SW5030B

Date Prep: 09.14.17

LCSD Sample Id: 730960-1-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	0.103	103	0.102	103	70-130	1	35	mg/kg	09.14.17 08:56	
Toluene	<0.00200	0.0998	0.0975	98	0.0965	97	70-130	1	35	mg/kg	09.14.17 08:56	
Ethylbenzene	<0.00200	0.0998	0.0963	96	0.0961	97	71-129	0	35	mg/kg	09.14.17 08:56	
m,p-Xylenes	<0.00399	0.200	0.187	94	0.186	93	70-135	1	35	mg/kg	09.14.17 08:56	
o-Xylene	<0.00200	0.0998	0.0902	90	0.0904	91	71-133	0	35	mg/kg	09.14.17 08:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		99		97		80-120	%	09.14.17 08:56
4-Bromofluorobenzene	81		90		90		80-120	%	09.14.17 08:56

Analytical Method: BTEX by EPA 8021B

Seq Number: 3027682

MB Sample Id: 730962-1-BLK

Matrix: Solid

LCS Sample Id: 730962-1-BKS

Prep Method: SW5030B

Date Prep: 09.14.17

LCSD Sample Id: 730962-1-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	0.0991	99	0.0987	99	70-130	0	35	mg/kg	09.14.17 18:04	
Toluene	<0.00200	0.0998	0.0976	98	0.0976	98	70-130	0	35	mg/kg	09.14.17 18:04	
Ethylbenzene	<0.00200	0.0998	0.0958	96	0.0958	96	71-129	0	35	mg/kg	09.14.17 18:04	
m,p-Xylenes	<0.00399	0.200	0.186	93	0.186	93	70-135	0	35	mg/kg	09.14.17 18:04	
o-Xylene	<0.00200	0.0998	0.0901	90	0.0906	91	71-133	1	35	mg/kg	09.14.17 18:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		96		96		80-120	%	09.14.17 18:04
4-Bromofluorobenzene	94		93		92		80-120	%	09.14.17 18:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3027595

Parent Sample Id: 562531-004

Matrix: Soil

MS Sample Id: 562531-004 S

Prep Method: SW5030B

Date Prep: 09.13.17

MSD Sample Id: 562531-004 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	0.0756	76	0.0806	81	70-130	6	35	mg/kg	09.13.17 20:16	
Toluene	<0.00201	0.100	0.0705	71	0.0675	68	70-130	4	35	mg/kg	09.13.17 20:16	X
Ethylbenzene	<0.00201	0.100	0.0680	68	0.0617	62	71-129	10	35	mg/kg	09.13.17 20:16	X
m,p-Xylenes	<0.00402	0.201	0.131	65	0.114	57	70-135	14	35	mg/kg	09.13.17 20:16	X
o-Xylene	<0.00201	0.100	0.0675	68	0.0569	57	71-133	17	35	mg/kg	09.13.17 20:16	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		103		80-120	%	09.13.17 20:16
4-Bromofluorobenzene	89		85		80-120	%	09.13.17 20:16



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B Com 0001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3027739

Parent Sample Id: 562530-002

Matrix: Soil

MS Sample Id: 562530-002 S

Prep Method: SW5030B

Date Prep: 09.14.17

MSD Sample Id: 562530-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0891	88	0.0853	85	70-130	4	35	mg/kg	09.14.17 09:34	
Toluene	<0.00202	0.101	0.0828	82	0.0786	79	70-130	5	35	mg/kg	09.14.17 09:34	
Ethylbenzene	<0.00202	0.101	0.0805	80	0.0745	75	71-129	8	35	mg/kg	09.14.17 09:34	
m,p-Xylenes	<0.00403	0.202	0.155	77	0.143	72	70-135	8	35	mg/kg	09.14.17 09:34	
o-Xylene	<0.00202	0.101	0.0776	77	0.0712	71	71-133	9	35	mg/kg	09.14.17 09:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		105		80-120	%	09.14.17 09:34
4-Bromofluorobenzene	95		96		80-120	%	09.14.17 09:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3027682

Parent Sample Id: 562531-003

Matrix: Soil

MS Sample Id: 562531-003 S

Prep Method: SW5030B

Date Prep: 09.14.17

MSD Sample Id: 562531-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0909	90	0.0848	85	70-130	7	35	mg/kg	09.14.17 18:42	
Toluene	<0.00202	0.101	0.0882	87	0.0823	82	70-130	7	35	mg/kg	09.14.17 18:42	
Ethylbenzene	<0.00202	0.101	0.0859	85	0.0805	81	71-129	6	35	mg/kg	09.14.17 18:42	
m,p-Xylenes	<0.00404	0.202	0.167	83	0.156	78	70-135	7	35	mg/kg	09.14.17 18:42	
o-Xylene	0.00251	0.101	0.0822	79	0.0774	75	71-133	6	35	mg/kg	09.14.17 18:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		101		80-120	%	09.14.17 18:42
4-Bromofluorobenzene	97		100		80-120	%	09.14.17 18:42



CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

Page 1 of 2

LAB W.O #: 562530

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
GA Glass Amber TB Tedlar Bag
GC Glass Clear ZB Zip Lock Bag
PA Plastic Amber PC Plastic Clear
Other _____

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

** Preservative Type Codes

A. None E. HCL I. Ice
B. HNO₃ F. MeOH J. MCAA C.
H₂SO₄ G. Na₂S₂O₅ K. ZnAc₂/NaOH
D. NaOH H. NaHSO₄ L. Asbic Acid/NaOH
O. _____

^ Matrix Type Codes

GW Ground Water S. Soil/Sediment/Solid
WW 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

Company: Trinity Oilfield Services & Rentals, LLC Phone: (575)390-7208
Address: P.O. Box 2587 Fax: _____
City: Hobbs State: NM Zip: 88241
PM/Attn: Ben J. Arguio Email: wade.dittrich@oxy.com & ben@trinityoilfieldservices.com
Project ID: Osage 18 Fee B Com 0001H PO#: _____
Invoice To: Oxy - Wade Dittrich (575)390-2828 Quote #: _____

TAT Work Days = D Need results by: _____ Time: _____
Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other

ANALYSES REQUESTED

Cont Type *	GC	GC	GC															
VC																		
Pres Type**	I	I	I															
Example Volatiles by 826C	TPH 8015M	BTEX	Chloride															

Sampler Name: Duskie Bennett Circle One Event: Daily Weekly Monthly Quarterly
Semi-Annual Annual N/A

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 826C	# Cont	Lab Only:	Hold Sample (CALL J. Run PAH on Highest TPH Only)
1	SP-2 @1.5'	9/6/17	1035	S			1			X X X	
2	SP-2 @4.5'	9/6/17	1103	S			1			X X X	
3	SP-3 @1.5'	9/6/17	1120	S			1			X X X	
4	SP-3 @2.5'	9/6/17	1144	S			1			X X X	
5	SP-4 @1'	9/6/17	1205	S			1			X X X	
6	SP-4 @3'	9/6/17	1242	S			1			X X X	
7	SP-5 @1'	9/6/17	1301	S			1			X X X	
8	SP-5 @2.5'	9/6/17	1312	S			1			X X X	
9	SP-5 @5.5'	9/6/17	1322	S			1			X X X	
0	SP-7 @1.5'	9/6/17	1350	S			1			X X X	

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/A

CTLs TRRP DW NPDES LPST DryCln Other: FL TX GA NC SC NJ PA OK 1 2 3 4 CLP AFCEE QAPP NELAC ADAPT SEDD ERPIMS Match Incomplete XLS Other: 1 2 3 2.0

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1. Duskie Bennett	Trinity	9/11/17	09:21	EG	MS	9-11	9:23
2.		9/11/17		Thane Wm	Xenco	9-12-17	10:29
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 Phoenix 602-437-0330
ETS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Execution 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 and conditions unless previously agreed. Full accrue interest at 1.5% per month until paid in full. All laboratory analytical data and reports generated by Xenco remain the exclusive property of Xenco until invoices for such data are paid in full.

Revision Date: Nov 1

Temp: -0.4 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -0.2

CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West 1-20 East Odessa, TX 79765 (432)563-1800
79001-c

Page 2 of 2

LAB W.O # :

Field billable Hrs :

* Container Type Codes

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

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

** Preservative Type Codes

A. None E. HCl I. Ice
B. HNO_3 F. MeOH J. MCAA
 H_2SO_4 G. $\text{Na}_2\text{Si}_2\text{O}_5$ K. ZnAc_2 & NaOH
D. NaOH H. NaHSO_4 L. Asbic Acid & NaOH
O.

^ Matrix Type Codes

GW	Ground Water	S	Solid/Sediment/Solid
WW	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		

REMARKS

Company: Trinity Oilfield Services & Rentals, LLC				Phone: (575)390-7208				TAT Work Days = D Need results by: _____ Time: _____												PA: Plastic Amber PC: Plastic Clear Other: _____						
Address: P.O. Box 2587				Fax: _____				Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other												Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other						
City: Hobbs				State: NM Zip: 88241				ANALYSES REQUESTED												** Preservative Type Codes						
PM/Attn: Ben J. Arguio				Email: wade.ditrich@oxy.com & ben@trinityoilfieldservices.com				Cont Type * VC		GC	GC	GC								A. None E. HCL I. Ice B. HNO ₃ F. MeOH J. MCAA C. H ₂ SO ₄ G. Na ₂ S ₂ O ₈ K. ZnAc ₂ /NaOH D. NaOH H. NaHSO ₄ L. Asbc Acid/NaOH O. _____						
Project ID: Osage 18 Fee B Com 0001H				PO#: _____				Pres Type**		I	I	I														
Invoice To: Oxy - Wade Ditrich (575)390-2828				Quote #:				Example Volatiles by 8260		TPH 8015M	BTEX	Chloride							Hold Sample (CALL) Run PAH on Highest TPH Only	^ Matrix Type Codes						
Sampler Name: Duskie Bennett				Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A																GW Ground Water S. Soil/Sediment/Solid WW 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						
Sample #	Sample ID			Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	# Cont	Lab Only:												REMARKS			
1	SP-7 @2.5'			9/6/17	1400	S			1		X	X	X													
2	SP-8 @1.5'			9/6/17	1423	S			1		X	X	X													
3	SP-8 @3'			9/6/17	1435	S			1		X	X	X													
4	SP-8 @4'			9/6/17	1453	S			1		X	X	X													
5	SP-10 @1.5'			9/6/17	1510	S			1		X	X	X													
6	SP-10 @4'			9/6/17	1537	S			1		X	X	X													
7	SP-11 @1.5'			9/6/17	1554	S			1		X	X	X													
8																										
9																										
0																										
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/A						
CTLs TRRP DW NPDES LPST DryCln Other:				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 Absent Unclear		1 2 3 2.0		Non-Conformances found?								
Relinquished by				Affiliation				Date				Time				Received by		Affiliation		Date		Time				
1 Duskie Bennett				Trinity				9/11/17				0921				EG		MS		9-11		9:23				
2																Shannel		Kerco		9-12-17		10:29				
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 Phoenix 602-437-0330
FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Execution of this document by client creates a legal and binding agreement between client and Xenico for analytical and testing services provided by Xenico to client under Xenico's standard terms and conditions unless previously agreed. All laboratory analytical data and reports generated by Xenico remain the exclusive property of Xenico until invoices for such data are paid in full. Revision Date: None

Revision Date: Nov

Temp: -0.4 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: $+0.2^{\circ}\text{C}$)
Corrected Temp: -0.2



Client: Trinity Oilfield Services & Rentals, LLC

Date/ Time Received: 09/11/2017 09:23:00 AM

Work Order #: 562530

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#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: 09/12/2017

Checklist reviewed by:

Holly Taylor

Date: 09/13/2017



Certificate of Analysis Summary 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	588112-001	588112-002	588112-003	588112-004	588112-005	588112-006
	<i>Field Id:</i>	Wall-1a	Wall-2a	Wall-3a	Wall-4a	Wall-4b	Wall-6a
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-28-18 10:00	May-28-18 10:05	May-28-18 10:30	May-28-18 10:45	May-28-18 11:30	May-29-18 10:00
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-08-18 16:40	Jun-08-18 16:40	Jun-08-18 16:40	Jun-10-18 08:30	Jun-08-18 16:40	Jun-08-18 16:40
	<i>Analyzed:</i>	Jun-09-18 11:47	Jun-09-18 12:05	Jun-09-18 12:23	Jun-10-18 21:52	Jun-09-18 12:57	Jun-09-18 13:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398	<0.00400 0.00400	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Jun-07-18 08:30	Jun-07-18 08:30	Jun-14-18 17:15	Jun-07-18 08:30	Jun-14-18 17:15	Jun-07-18 08:30
	<i>Analyzed:</i>	Jun-07-18 09:47	Jun-07-18 10:03	Jun-14-18 19:12	Jun-07-18 10:14	Jun-14-18 19:18	Jun-07-18 10:36
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		44.1 5.00	27.4 4.95	725 4.99	2530 25.0	1770 25.0	44.4 4.97
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00
	<i>Analyzed:</i>	Jun-05-18 13:51	Jun-05-18 14:53	Jun-05-18 15:14	Jun-05-18 15:35	Jun-05-18 15:56	Jun-05-18 16:16
	<i>Units/RL:</i>	mg/kg RL	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	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager



Certificate of Analysis Summary 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	588112-007	588112-008	588112-009	588112-010	588112-011	588112-012
	Field Id:	Wall-7a	Wall-8a	Wall-9a	Wall-10a	Wall-11a	Wall-12a
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	May-29-18 10:20	May-29-18 10:35	May-29-18 10:47	May-29-18 11:05	May-29-18 11:15	May-29-18 11:23
BTEX by EPA 8021B	Extracted:	Jun-08-18 16:40	Jun-08-18 16:40	Jun-08-18 16:40	Jun-08-18 16:40	Jun-08-18 16:40	Jun-08-18 16:40
	Analyzed:	Jun-09-18 13:33	Jun-09-18 13:51	Jun-09-18 14:09	Jun-09-18 14:27	Jun-09-18 15:22	Jun-09-18 15:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00404 0.00404	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30
	Analyzed:	Jun-07-18 10:46	Jun-07-18 10:51	Jun-07-18 10:57	Jun-07-18 11:02	Jun-07-18 11:07	Jun-07-18 11:24
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		27.7 4.97	24.2 4.95	212 5.00	57.0 4.97	18.9 4.96	23.2 4.97
TPH By SW8015 Mod	Extracted:	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00
	Analyzed:	Jun-05-18 16:37	Jun-05-18 16:58	Jun-05-18 17:19	Jun-05-18 17:40	Jun-05-18 18:42	Jun-05-18 19:03
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<14.9 14.9	<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 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	588112-013	588112-014	588112-015	588112-016	588112-017	588112-018
	Field Id:	Wall-13a	Wall-14a	Wall-15a	Wall-16a	Wall-17a	Wall-18a
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	May-29-18 11:35	May-29-18 11:40	May-29-18 11:55	May-29-18 13:00	May-29-18 13:15	May-29-18 13:25
BTEX by EPA 8021B	Extracted:	Jun-08-18 16:40	Jun-08-18 16:40	Jun-08-18 16:40	Jun-09-18 07:55	Jun-09-18 07:55	Jun-09-18 07:55
	Analyzed:	Jun-09-18 15:58	Jun-09-18 16:16	Jun-09-18 16:34	Jun-09-18 20:48	Jun-09-18 21:06	Jun-09-18 21:24
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402	<0.00402 0.00402	<0.00399 0.00399	<0.00397 0.00397
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	Extracted:	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 08:30
	Analyzed:	Jun-07-18 11:29	Jun-07-18 11:45	Jun-07-18 11:51	Jun-07-18 11:56	Jun-07-18 12:01	Jun-07-18 12:07
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		27.3 4.97	64.7 4.99	140 5.00	399 4.99	14.1 4.97	11.1 4.95
TPH By SW8015 Mod	Extracted:	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 12:00
	Analyzed:	Jun-05-18 19:24	Jun-05-18 19:44	Jun-05-18 20:05	Jun-05-18 20:25	Jun-05-18 20:46	Jun-05-18 21:06
	Units/RL:	mg/kg RL	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	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Holly Taylor
Project Manager



Certificate of Analysis Summary 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	588112-019	588112-020	588112-021	588112-022	588112-023	588112-024
	<i>Field Id:</i>	Wall-19a	Wall-20a	Wall-20b	Wall-21a	Wall-21b	Wall-22a
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-29-18 13:40	May-29-18 14:20	May-31-18 12:55	May-29-18 14:30	May-31-18 12:45	May-29-18 14:35
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-09-18 07:55	Jun-09-18 07:55	Jun-09-18 07:55	Jun-09-18 07:55	Jun-09-18 07:55	Jun-09-18 07:55
	<i>Analyzed:</i>	Jun-09-18 21:42	Jun-09-18 22:00	Jun-09-18 20:29	Jun-09-18 22:18	Jun-09-18 22:36	Jun-09-18 22:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00403 0.00403	<0.00404 0.00404	<0.00404 0.00404	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Jun-07-18 08:30	Jun-07-18 08:30	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15
	<i>Analyzed:</i>	Jun-07-18 12:12	Jun-07-18 12:18	Jun-07-18 13:40	Jun-07-18 14:01	Jun-07-18 14:07	Jun-07-18 14:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		127 4.99	645 4.95	83.3 4.96	1560 24.8	208 4.99	102 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-05-18 12:00	Jun-05-18 12:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00
	<i>Analyzed:</i>	Jun-05-18 21:27	Jun-05-18 21:47	Jun-05-18 23:30	Jun-06-18 00:32	Jun-06-18 00:53	Jun-06-18 01:14
	<i>Units/RL:</i>	mg/kg RL	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	<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	<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	<15.0 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 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	588112-025	588112-026	588112-027	588112-028	588112-029	588112-030
	<i>Field Id:</i>	Wall-23a	Wall-24a	Wall-25a	Wall-26a	Wall-27a	Wall-28a
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-29-18 14:45	May-29-18 14:55	May-30-18 09:00	May-30-18 09:09	May-30-18 09:10	May-30-18 09:15
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-09-18 07:55	Jun-09-18 07:55	Jun-09-18 07:55	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00
	<i>Analyzed:</i>	Jun-09-18 23:12	Jun-10-18 00:06	Jun-10-18 00:24	Jun-10-18 11:58	Jun-10-18 11:40	Jun-10-18 11:22
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	0.00237 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	<0.00404 0.00404	<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	0.00237 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15
	<i>Analyzed:</i>	Jun-07-18 14:18	Jun-07-18 14:34	Jun-07-18 14:39	Jun-07-18 14:45	Jun-07-18 14:50	Jun-07-18 14:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		31.4 4.93	310 4.95	128 4.96	284 4.99	50.6 4.97	40.0 4.96
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00
	<i>Analyzed:</i>	Jun-06-18 01:34	Jun-06-18 01:55	Jun-06-18 02:15	Jun-06-18 02:36	Jun-06-18 02:57	Jun-06-18 03:18
	<i>Units/RL:</i>	mg/kg RL	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	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	34.9 15.0	37.3 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	34.9 15.0	37.3 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 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	588112-031	588112-032	588112-033	588112-034	588112-035	588112-036
	<i>Field Id:</i>	Wall-29a	Wall-30a	Wall-31a	Wall-32a	Wall-33a	Wall-34a
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-30-18 09:20	May-30-18 09:25	May-30-18 09:30	May-30-18 09:35	May-30-18 09:40	May-30-18 09:45
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00
	<i>Analyzed:</i>	Jun-10-18 11:04	Jun-10-18 10:46	Jun-10-18 10:28	Jun-10-18 10:10	Jun-10-18 09:51	Jun-10-18 09:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00396 0.00396	<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15
	<i>Analyzed:</i>	Jun-07-18 15:01	Jun-07-18 15:17	Jun-07-18 15:23	Jun-07-18 15:39	Jun-07-18 15:44	Jun-07-18 15:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		168 4.94	12.1 4.93	246 4.99	47.9 4.97	172 4.95	44.1 4.96
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00
	<i>Analyzed:</i>	Jun-06-18 04:20	Jun-06-18 04:41	Jun-06-18 05:01	Jun-06-18 05:22	Jun-06-18 05:42	Jun-06-18 06:03
	<i>Units/RL:</i>	mg/kg RL	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	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Holly Taylor
Project Manager



Certificate of Analysis Summary 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	588112-037	588112-038	588112-039	588112-040	588112-041	588112-042
	<i>Field Id:</i>	Wall-36a	Wall-37a	Wall-38a	Wall-39a	Wall-40a	Wall-41a
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-30-18 09:55	May-30-18 10:00	May-30-18 10:20	May-30-18 10:30	May-30-18 10:40	May-30-18 11:00
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00
	<i>Analyzed:</i>	Jun-10-18 09:15	Jun-10-18 08:12	Jun-10-18 07:52	Jun-10-18 07:34	Jun-10-18 05:32	Jun-10-18 05:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402	<0.00404 0.00404	<0.00401 0.00401	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-07-18 09:15	Jun-14-18 17:15	Jun-07-18 12:30
	<i>Analyzed:</i>	Jun-07-18 15:55	Jun-07-18 16:00	Jun-07-18 16:13	Jun-07-18 16:18	Jun-14-18 19:23	Jun-07-18 17:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		92.4 4.96	180 4.99	76.0 5.00	12.1 4.97	3890 49.0	2640 24.7
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-05-18 15:00	Jun-06-18 10:00	Jun-06-18 10:00
	<i>Analyzed:</i>	Jun-06-18 06:24	Jun-06-18 06:45	Jun-06-18 07:05	Jun-06-18 07:26	Jun-06-18 13:06	Jun-06-18 14:07
	<i>Units/RL:</i>	mg/kg RL	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	<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	<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	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager



Certificate of Analysis Summary 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage Fee B Com 0001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Tue Jun-05-18 11:00 am

Report Date: 15-JUN-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	588112-043	588112-044	588112-045	588112-046	588112-047	
	<i>Field Id:</i>	Wall-41b	Wall-42a	Wall-42b	Wall-44a	SP-5 @ 5.5'a	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	May-31-18 09:30	May-30-18 11:20	May-31-18 12:00	May-31-18 11:45	May-31-18 10:28	
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	Jun-09-18 10:00	
	<i>Analyzed:</i>	Jun-10-18 06:06	Jun-10-18 06:24	Jun-10-18 06:40	Jun-10-18 06:58	Jun-10-18 07:16	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Toluene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00400 0.00400	<0.00401 0.00401	<0.00398 0.00398	
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Total BTEX		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Chloride by EPA 300	<i>Extracted:</i>	Jun-07-18 12:30	Jun-07-18 12:30	Jun-14-18 17:15	Jun-07-18 12:30	Jun-07-18 12:30	
	<i>Analyzed:</i>	Jun-07-18 17:55	Jun-07-18 18:01	Jun-14-18 19:29	Jun-07-18 18:30	Jun-07-18 18:35	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		84.8 4.92	657 4.98	579 4.95	13.4 4.98	454 4.97	
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-06-18 10:00	Jun-06-18 10:00	Jun-06-18 10:00	Jun-06-18 10:00	Jun-06-18 10:00	
	<i>Analyzed:</i>	Jun-06-18 14:28	Jun-06-18 14:49	Jun-06-18 15:09	Jun-06-18 15:30	Jun-06-18 15:50	
	<i>Units/RL:</i>	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	<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	<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	
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager

Analytical Report 588112

for

Trinity Oilfield Services & Rentals, LLC

Project Manager: Ben Arguijo

Osage Fee B Com 0001H

15-JUN-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (T104704295-17-16), 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 (T104704400-18-15)

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)

Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)



15-JUN-18

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

Reference: XENCO Report No(s): **588112**
Osage Fee B Com 0001H
Project Address: NM

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) 588112. 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. 588112 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,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Wall-1a	S	05-28-18 10:00		588112-001
Wall-2a	S	05-28-18 10:05		588112-002
Wall-3a	S	05-28-18 10:30		588112-003
Wall-4a	S	05-28-18 10:45		588112-004
Wall-4b	S	05-28-18 11:30		588112-005
Wall-6a	S	05-29-18 10:00		588112-006
Wall-7a	S	05-29-18 10:20		588112-007
Wall-8a	S	05-29-18 10:35		588112-008
Wall-9a	S	05-29-18 10:47		588112-009
Wall-10a	S	05-29-18 11:05		588112-010
Wall-11a	S	05-29-18 11:15		588112-011
Wall-12a	S	05-29-18 11:23		588112-012
Wall-13a	S	05-29-18 11:35		588112-013
Wall-14a	S	05-29-18 11:40		588112-014
Wall-15a	S	05-29-18 11:55		588112-015
Wall-16a	S	05-29-18 13:00		588112-016
Wall-17a	S	05-29-18 13:15		588112-017
Wall-18a	S	05-29-18 13:25		588112-018
Wall-19a	S	05-29-18 13:40		588112-019
Wall-20a	S	05-29-18 14:20		588112-020
Wall-20b	S	05-31-18 12:55		588112-021
Wall-21a	S	05-29-18 14:30		588112-022
Wall-21b	S	05-31-18 12:45		588112-023
Wall-22a	S	05-29-18 14:35		588112-024
Wall-23a	S	05-29-18 14:45		588112-025
Wall-24a	S	05-29-18 14:55		588112-026
Wall-25a	S	05-30-18 09:00		588112-027
Wall-26a	S	05-30-18 09:09		588112-028
Wall-27a	S	05-30-18 09:10		588112-029
Wall-28a	S	05-30-18 09:15		588112-030
Wall-29a	S	05-30-18 09:20		588112-031
Wall-30a	S	05-30-18 09:25		588112-032
Wall-31a	S	05-30-18 09:30		588112-033
Wall-32a	S	05-30-18 09:35		588112-034
Wall-33a	S	05-30-18 09:40		588112-035
Wall-34a	S	05-30-18 09:45		588112-036
Wall-36a	S	05-30-18 09:55		588112-037
Wall-37a	S	05-30-18 10:00		588112-038
Wall-38a	S	05-30-18 10:20		588112-039
Wall-39a	S	05-30-18 10:30		588112-040
Wall-40a	S	05-30-18 10:40		588112-041
Wall-41a	S	05-30-18 11:00		588112-042
Wall-41b	S	05-31-18 09:30		588112-043



Sample Cross Reference 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Wall-42a	S	05-30-18 11:20	588112-044
Wall-42b	S	05-31-18 12:00	588112-045
Wall-44a	S	05-31-18 11:45	588112-046
SP-5 @ 5.5'a	S	05-31-18 10:28	588112-047

**CASE NARRATIVE****Client Name: Trinity Oilfield Services & Rentals, LLC****Project Name: Osage Fee B Com 0001H**Project ID:
Work Order Number(s): 588112Report Date: 15-JUN-18
Date Received: 06/05/2018**Sample receipt non conformances and comments:**

6/15/18 1.001 Revised to report results of Cl re-analysis on sampels 003, 005, 041 and 045 per Ben Arguijo.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3052758 Chloride by EPA 300

Lab Sample ID 588112-031 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588112-021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035, -036, -037, -038, -039, -040.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3052759 Inorganic Anions by EPA 300

Lab Sample ID 588300-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588112-042, -043, -044, -046, -047.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3052930 BTEX by EPA 8021B

Lab Sample ID 588112-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588112-001, -002, -003, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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

**CASE NARRATIVE****Client Name: Trinity Oilfield Services & Rentals, LLC****Project Name: Osage Fee B Com 0001H**

Project ID:
Work Order Number(s): 588112

Report Date: 15-JUN-18
Date Received: 06/05/2018

Batch: LBA-3052932 BTEX by EPA 8021B

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

Lab Sample ID 588112-021 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588112-016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3052937 BTEX by EPA 8021B

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

Lab Sample ID 588112-041 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588112-028, -029, -030, -031, -032, -033, -034, -035, -036, -037, -038, -039, -040, -041, -042, -043, -044, -045, -046, -047.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3052970 BTEX by EPA 8021B

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



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-1a**
Lab Sample Id: 588112-001

Matrix: Soil
Date Collected: 05.28.18 10.00

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.1	5.00	mg/kg	06.07.18 09.47		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 13.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 13.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 13.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 13.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	06.05.18 13.51	
o-Terphenyl	84-15-1	90	%	70-135	06.05.18 13.51	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-1a**
Lab Sample Id: 588112-001

Matrix: Soil
Date Collected: 05.28.18 10.00

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.09.18 11.47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.09.18 11.47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.09.18 11.47	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.09.18 11.47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.09.18 11.47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.09.18 11.47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.09.18 11.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.09.18 11.47		
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.09.18 11.47		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-2a**
Lab Sample Id: 588112-002

Matrix: Soil
Date Collected: 05.28.18 10.05

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.4	4.95	mg/kg	06.07.18 10.03		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 14.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 14.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 14.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 14.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	06.05.18 14.53	
o-Terphenyl	84-15-1	88	%	70-135	06.05.18 14.53	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-2a**
Lab Sample Id: 588112-002

Matrix: Soil
Date Collected: 05.28.18 10.05

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.09.18 12.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.09.18 12.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.09.18 12.05	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.09.18 12.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.09.18 12.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.09.18 12.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.09.18 12.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	06.09.18 12.05		
1,4-Difluorobenzene	540-36-3	103	%	70-130	06.09.18 12.05		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-3a**
Lab Sample Id: 588112-003

Matrix: Soil
Date Collected: 05.28.18 10.30

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.14.18 17.15

Basis: Wet Weight

Seq Number: 3053587

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	725	4.99	mg/kg	06.14.18 19.12		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Seq Number: 3052405

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 15.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 15.14	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 15.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 15.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	06.05.18 15.14	
o-Terphenyl	84-15-1	87	%	70-135	06.05.18 15.14	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-3a**
Lab Sample Id: 588112-003

Matrix: Soil
Date Collected: 05.28.18 10.30

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.09.18 12.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.09.18 12.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.09.18 12.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.09.18 12.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.09.18 12.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.09.18 12.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.09.18 12.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.09.18 12.23		
4-Bromofluorobenzene	460-00-4	115	%	70-130	06.09.18 12.23		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-4a**
Lab Sample Id: 588112-004

Matrix: Soil
Date Collected: 05.28.18 10.45

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2530	25.0	mg/kg	06.07.18 10.14		5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 15.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 15.35	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 15.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 15.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	06.05.18 15.35	
o-Terphenyl	84-15-1	92	%	70-135	06.05.18 15.35	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-4a**
Lab Sample Id: 588112-004

Matrix: Soil
Date Collected: 05.28.18 10.45

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.10.18 08.30

Basis: Wet Weight

Seq Number: 3052970

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.10.18 21.52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.10.18 21.52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.10.18 21.52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.10.18 21.52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.10.18 21.52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.10.18 21.52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.10.18 21.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	06.10.18 21.52		
1,4-Difluorobenzene	540-36-3	83	%	70-130	06.10.18 21.52		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-4b**
Lab Sample Id: 588112-005

Matrix: Soil
Date Collected: 05.28.18 11.30

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3053587

Prep Method: E300P

% Moisture:

Date Prep: 06.14.18 17.15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1770	25.0	mg/kg	06.14.18 19.18		5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 15.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 15.56	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 15.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 15.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	06.05.18 15.56	
o-Terphenyl	84-15-1	93	%	70-135	06.05.18 15.56	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-4b**
Lab Sample Id: 588112-005

Matrix: Soil
Date Collected: 05.28.18 11.30

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.09.18 12.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.09.18 12.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.09.18 12.57	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.09.18 12.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.09.18 12.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.09.18 12.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.09.18 12.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.09.18 12.57		
1,4-Difluorobenzene	540-36-3	84	%	70-130	06.09.18 12.57		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-6a**
Lab Sample Id: 588112-006

Matrix: Soil
Date Collected: 05.29.18 10.00

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.4	4.97	mg/kg	06.07.18 10.36		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.05.18 16.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	06.05.18 16.16	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.05.18 16.16	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.05.18 16.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	06.05.18 16.16	
o-Terphenyl	84-15-1	93	%	70-135	06.05.18 16.16	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-6a**
Lab Sample Id: 588112-006

Matrix: Soil
Date Collected: 05.29.18 10.00

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.09.18 13.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.09.18 13.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.09.18 13.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.09.18 13.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.09.18 13.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.09.18 13.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.09.18 13.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	06.09.18 13.15		
4-Bromofluorobenzene	460-00-4	126	%	70-130	06.09.18 13.15		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-7a**
Lab Sample Id: 588112-007

Matrix: Soil
Date Collected: 05.29.18 10.20

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.7	4.97	mg/kg	06.07.18 10.46		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 16.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 16.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 16.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	06.05.18 16.37	
o-Terphenyl	84-15-1	94	%	70-135	06.05.18 16.37	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-7a**
Lab Sample Id: 588112-007

Matrix: Soil
Date Collected: 05.29.18 10.20

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.09.18 13.33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.09.18 13.33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.09.18 13.33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.09.18 13.33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.09.18 13.33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.09.18 13.33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.09.18 13.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	06.09.18 13.33		
4-Bromofluorobenzene	460-00-4	121	%	70-130	06.09.18 13.33		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-8a**
Lab Sample Id: 588112-008

Matrix: Soil
Date Collected: 05.29.18 10.35

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.2	4.95	mg/kg	06.07.18 10.51		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.05.18 16.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	06.05.18 16.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.05.18 16.58	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.05.18 16.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	06.05.18 16.58	
o-Terphenyl	84-15-1	88	%	70-135	06.05.18 16.58	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-8a**
Lab Sample Id: 588112-008

Matrix: Soil
Date Collected: 05.29.18 10.35

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.09.18 13.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.09.18 13.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.09.18 13.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.09.18 13.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.09.18 13.51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.09.18 13.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.09.18 13.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	06.09.18 13.51		
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.09.18 13.51		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-9a**
Lab Sample Id: 588112-009

Matrix: Soil
Date Collected: 05.29.18 10.47

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	212	5.00	mg/kg	06.07.18 10.57		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 17.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 17.19	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 17.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 17.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	06.05.18 17.19	
o-Terphenyl	84-15-1	90	%	70-135	06.05.18 17.19	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-9a**
Lab Sample Id: 588112-009

Matrix: Soil
Date Collected: 05.29.18 10.47

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.09.18 14.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.09.18 14.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.09.18 14.09	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.09.18 14.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.09.18 14.09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.09.18 14.09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.09.18 14.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.09.18 14.09		
4-Bromofluorobenzene	460-00-4	92	%	70-130	06.09.18 14.09		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-10a**
Lab Sample Id: 588112-010

Matrix: Soil
Date Collected: 05.29.18 11.05

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052756

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 08.30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.0	4.97	mg/kg	06.07.18 11.02		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052405

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 17.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 17.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 17.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 17.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	06.05.18 17.40	
o-Terphenyl	84-15-1	93	%	70-135	06.05.18 17.40	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-10a**
Lab Sample Id: 588112-010

Matrix: Soil
Date Collected: 05.29.18 11.05

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.09.18 14.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.09.18 14.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.09.18 14.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.09.18 14.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.09.18 14.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.09.18 14.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.09.18 14.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	06.09.18 14.27		
1,4-Difluorobenzene	540-36-3	96	%	70-130	06.09.18 14.27		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-11a**
Lab Sample Id: 588112-011

Matrix: Soil
Date Collected: 05.29.18 11.15

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052756

Prep Method: E300P
% Moisture:
Date Prep: 06.07.18 08.30
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.9	4.96	mg/kg	06.07.18 11.07		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052405

Prep Method: TX1005P
% Moisture:
Date Prep: 06.05.18 12.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 18.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 18.42	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 18.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 18.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	06.05.18 18.42	
o-Terphenyl	84-15-1	85	%	70-135	06.05.18 18.42	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-11a**
Lab Sample Id: 588112-011

Matrix: Soil
Date Collected: 05.29.18 11.15

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.09.18 15.22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.09.18 15.22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.09.18 15.22	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.09.18 15.22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.09.18 15.22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.09.18 15.22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.09.18 15.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	06.09.18 15.22		
4-Bromofluorobenzene	460-00-4	96	%	70-130	06.09.18 15.22		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-12a**
Lab Sample Id: 588112-012

Matrix: Soil
Date Collected: 05.29.18 11.23

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.2	4.97	mg/kg	06.07.18 11.24		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 19.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 19.03	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 19.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 19.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	06.05.18 19.03	
o-Terphenyl	84-15-1	88	%	70-135	06.05.18 19.03	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-12a**
Lab Sample Id: 588112-012

Matrix: Soil
Date Collected: 05.29.18 11.23

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.09.18 15.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.09.18 15.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.09.18 15.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.09.18 15.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.09.18 15.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.09.18 15.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.09.18 15.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.09.18 15.40		
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.09.18 15.40		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-13a**
Lab Sample Id: 588112-013

Matrix: Soil
Date Collected: 05.29.18 11.35

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.3	4.97	mg/kg	06.07.18 11.29		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 19.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 19.24	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 19.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 19.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	06.05.18 19.24	
o-Terphenyl	84-15-1	90	%	70-135	06.05.18 19.24	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-13a**
Lab Sample Id: 588112-013

Matrix: Soil
Date Collected: 05.29.18 11.35

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.09.18 15.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.09.18 15.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.09.18 15.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.09.18 15.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.09.18 15.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.09.18 15.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.09.18 15.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.09.18 15.58		
4-Bromofluorobenzene	460-00-4	106	%	70-130	06.09.18 15.58		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-14a**
Lab Sample Id: 588112-014

Matrix: Soil
Date Collected: 05.29.18 11.40

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052756

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.7	4.99	mg/kg	06.07.18 11.45		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052405

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 19.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 19.44	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 19.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 19.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	06.05.18 19.44	
o-Terphenyl	84-15-1	90	%	70-135	06.05.18 19.44	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-14a**
Lab Sample Id: 588112-014

Matrix: Soil
Date Collected: 05.29.18 11.40

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.09.18 16.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.09.18 16.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.09.18 16.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.09.18 16.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.09.18 16.16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.09.18 16.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.09.18 16.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.09.18 16.16		
1,4-Difluorobenzene	540-36-3	93	%	70-130	06.09.18 16.16		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-15a**
Lab Sample Id: 588112-015

Matrix: Soil
Date Collected: 05.29.18 11.55

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052756

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 08.30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	140	5.00	mg/kg	06.07.18 11.51		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052405

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.05.18 20.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	06.05.18 20.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.05.18 20.05	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.05.18 20.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-135	06.05.18 20.05		
o-Terphenyl	84-15-1	88	%	70-135	06.05.18 20.05		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-15a**
Lab Sample Id: 588112-015

Matrix: Soil
Date Collected: 05.29.18 11.55

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.08.18 16.40

Basis: Wet Weight

Seq Number: 3052930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.09.18 16.34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.09.18 16.34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.09.18 16.34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.09.18 16.34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.09.18 16.34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.09.18 16.34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.09.18 16.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	06.09.18 16.34		
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.09.18 16.34		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-16a**
Lab Sample Id: 588112-016

Matrix: Soil
Date Collected: 05.29.18 13.00

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052756

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 08.30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	399	4.99	mg/kg	06.07.18 11.56		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052405

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 20.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 20.25	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 20.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 20.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	89	%	70-135	06.05.18 20.25		
o-Terphenyl	84-15-1	87	%	70-135	06.05.18 20.25		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-16a**
Lab Sample Id: 588112-016

Matrix: Soil
Date Collected: 05.29.18 13.00

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.09.18 20.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.09.18 20.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.09.18 20.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.09.18 20.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.09.18 20.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.09.18 20.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.09.18 20.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.09.18 20.48		
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.09.18 20.48		



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Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-17a**
Lab Sample Id: 588112-017

Matrix: Soil
Date Collected: 05.29.18 13.15

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052756

Prep Method: E300P
% Moisture:
Date Prep: 06.07.18 08.30
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.1	4.97	mg/kg	06.07.18 12.01		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052405

Prep Method: TX1005P
% Moisture:
Date Prep: 06.05.18 12.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 20.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 20.46	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 20.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 20.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	92	%	70-135	06.05.18 20.46		
o-Terphenyl	84-15-1	90	%	70-135	06.05.18 20.46		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-17a**
Lab Sample Id: 588112-017

Matrix: Soil
Date Collected: 05.29.18 13.15

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.09.18 21.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.09.18 21.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.09.18 21.06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.09.18 21.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.09.18 21.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.09.18 21.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.09.18 21.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	06.09.18 21.06		
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.09.18 21.06		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-18a**
Lab Sample Id: 588112-018

Matrix: Soil
Date Collected: 05.29.18 13.25

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052756

Prep Method: E300P
% Moisture:
Date Prep: 06.07.18 08.30
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.1	4.95	mg/kg	06.07.18 12.07		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052405

Prep Method: TX1005P
% Moisture:
Date Prep: 06.05.18 12.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 21.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 21.06	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 21.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 21.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	85	%	70-135	06.05.18 21.06		
o-Terphenyl	84-15-1	82	%	70-135	06.05.18 21.06		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-18a**
Lab Sample Id: 588112-018

Matrix: Soil
Date Collected: 05.29.18 13.25

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.09.18 21.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.09.18 21.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.09.18 21.24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.09.18 21.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.09.18 21.24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.09.18 21.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.09.18 21.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	06.09.18 21.24		
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.09.18 21.24		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-19a**
Lab Sample Id: 588112-019

Matrix: Soil
Date Collected: 05.29.18 13.40

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.07.18 08.30

Basis: Wet Weight

Seq Number: 3052756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	4.99	mg/kg	06.07.18 12.12		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.05.18 12.00

Basis: Wet Weight

Seq Number: 3052405

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 21.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 21.27	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 21.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 21.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	06.05.18 21.27	
o-Terphenyl	84-15-1	93	%	70-135	06.05.18 21.27	



Certificate of Analytical Results 588112

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-19a**
 Lab Sample Id: 588112-019

Matrix: Soil
 Date Collected: 05.29.18 13.40

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.09.18 21.42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.09.18 21.42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.09.18 21.42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.09.18 21.42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.09.18 21.42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.09.18 21.42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.09.18 21.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	06.09.18 21.42		
1,4-Difluorobenzene	540-36-3	96	%	70-130	06.09.18 21.42		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-20a**
Lab Sample Id: 588112-020

Matrix: Soil
Date Collected: 05.29.18 14.20

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052756

Prep Method: E300P
% Moisture:
Date Prep: 06.07.18 08.30
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	645	4.95	mg/kg	06.07.18 12.18		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052405

Prep Method: TX1005P
% Moisture:
Date Prep: 06.05.18 12.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 21.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 21.47	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 21.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 21.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	92	%	70-135	06.05.18 21.47		
o-Terphenyl	84-15-1	91	%	70-135	06.05.18 21.47		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-20a**
Lab Sample Id: 588112-020

Matrix: Soil
Date Collected: 05.29.18 14.20

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.09.18 22.00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.09.18 22.00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.09.18 22.00	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.09.18 22.00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.09.18 22.00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.09.18 22.00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.09.18 22.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.09.18 22.00		
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.09.18 22.00		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-20b**
Lab Sample Id: 588112-021

Matrix: Soil
Date Collected: 05.31.18 12.55

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Seq Number: 3052758

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.3	4.96	mg/kg	06.07.18 13.40		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Seq Number: 3052407

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.05.18 23.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.05.18 23.30	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.05.18 23.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.05.18 23.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	06.05.18 23.30	
o-Terphenyl	84-15-1	93	%	70-135	06.05.18 23.30	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-20b**
Lab Sample Id: 588112-021

Matrix: Soil
Date Collected: 05.31.18 12.55

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.09.18 20.29	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.09.18 20.29	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.09.18 20.29	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.09.18 20.29	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.09.18 20.29	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.09.18 20.29	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.09.18 20.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.09.18 20.29		
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.09.18 20.29		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-21a**
Lab Sample Id: 588112-022

Matrix: Soil
Date Collected: 05.29.18 14.30

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1560	24.8	mg/kg	06.07.18 14.01		5

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 00.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 00.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 00.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 00.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	89	%	70-135	06.06.18 00.32		
o-Terphenyl	84-15-1	88	%	70-135	06.06.18 00.32		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-21a**
Lab Sample Id: 588112-022

Matrix: Soil
Date Collected: 05.29.18 14.30

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.09.18 22.18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.09.18 22.18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.09.18 22.18	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.09.18 22.18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.09.18 22.18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.09.18 22.18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.09.18 22.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	06.09.18 22.18		
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.09.18 22.18		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-21b**
Lab Sample Id: 588112-023

Matrix: Soil
Date Collected: 05.31.18 12.45

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052758

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	208	4.99	mg/kg	06.07.18 14.07		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052407

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 00.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 00.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 00.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 00.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	06.06.18 00.53	
o-Terphenyl	84-15-1	94	%	70-135	06.06.18 00.53	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-21b**
Lab Sample Id: 588112-023

Matrix: Soil
Date Collected: 05.31.18 12.45

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.09.18 22.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.09.18 22.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.09.18 22.36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.09.18 22.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.09.18 22.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.09.18 22.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.09.18 22.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.09.18 22.36		
1,4-Difluorobenzene	540-36-3	88	%	70-130	06.09.18 22.36		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-22a**
Lab Sample Id: 588112-024

Matrix: Soil
Date Collected: 05.29.18 14.35

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052758

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	102	4.95	mg/kg	06.07.18 14.12		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052407

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 01.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 01.14	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 01.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 01.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	06.06.18 01.14	
o-Terphenyl	84-15-1	86	%	70-135	06.06.18 01.14	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-22a**
Lab Sample Id: 588112-024

Matrix: Soil
Date Collected: 05.29.18 14.35

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.09.18 22.54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.09.18 22.54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.09.18 22.54	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.09.18 22.54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.09.18 22.54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.09.18 22.54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.09.18 22.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	06.09.18 22.54		
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.09.18 22.54		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-23a**
Lab Sample Id: 588112-025

Matrix: Soil
Date Collected: 05.29.18 14.45

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.4	4.93	mg/kg	06.07.18 14.18		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 01.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 01.34	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 01.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 01.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	84	%	70-135	06.06.18 01.34		
o-Terphenyl	84-15-1	84	%	70-135	06.06.18 01.34		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-23a**
Lab Sample Id: 588112-025

Matrix: Soil
Date Collected: 05.29.18 14.45

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.09.18 23.12	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.09.18 23.12	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.09.18 23.12	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.09.18 23.12	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.09.18 23.12	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.09.18 23.12	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.09.18 23.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	06.09.18 23.12		
4-Bromofluorobenzene	460-00-4	96	%	70-130	06.09.18 23.12		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-24a**
Lab Sample Id: 588112-026

Matrix: Soil
Date Collected: 05.29.18 14.55

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052758

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	310	4.95	mg/kg	06.07.18 14.34		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052407

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 01.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	34.9	15.0	mg/kg	06.06.18 01.55		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 01.55	U	1
Total TPH	PHC635	34.9	15.0	mg/kg	06.06.18 01.55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	06.06.18 01.55	
o-Terphenyl	84-15-1	90	%	70-135	06.06.18 01.55	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-24a**
Lab Sample Id: 588112-026

Matrix: Soil
Date Collected: 05.29.18 14.55

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.10.18 00.06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.10.18 00.06	U	1
Ethylbenzene	100-41-4	0.00237	0.00202	mg/kg	06.10.18 00.06		1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.10.18 00.06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.10.18 00.06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.10.18 00.06	U	1
Total BTEX		0.00237	0.00202	mg/kg	06.10.18 00.06		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.10.18 00.06		
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.10.18 00.06		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-25a**
Lab Sample Id: 588112-027

Matrix: Soil
Date Collected: 05.30.18 09.00

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Date Prep: 06.07.18 09.15
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	128	4.96	mg/kg	06.07.18 14.39		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Date Prep: 06.05.18 15.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 02.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	37.3	15.0	mg/kg	06.06.18 02.15		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 02.15	U	1
Total TPH	PHC635	37.3	15.0	mg/kg	06.06.18 02.15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-135	06.06.18 02.15		
o-Terphenyl	84-15-1	95	%	70-135	06.06.18 02.15		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-25a**
Lab Sample Id: 588112-027

Matrix: Soil
Date Collected: 05.30.18 09.00

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 07.55

Basis: Wet Weight

Seq Number: 3052932

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.10.18 00.24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.10.18 00.24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.10.18 00.24	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.10.18 00.24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.10.18 00.24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.10.18 00.24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.10.18 00.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.10.18 00.24		
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.10.18 00.24		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-26a**
Lab Sample Id: 588112-028

Matrix: Soil
Date Collected: 05.30.18 09.09

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	284	4.99	mg/kg	06.07.18 14.45		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 02.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 02.36	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 02.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 02.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-135	06.06.18 02.36		
o-Terphenyl	84-15-1	92	%	70-135	06.06.18 02.36		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-26a**
Lab Sample Id: 588112-028

Matrix: Soil
Date Collected: 05.30.18 09.09

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.10.18 11.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.10.18 11.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.10.18 11.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.10.18 11.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.10.18 11.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.10.18 11.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.10.18 11.58	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108		%	70-130	06.10.18 11.58	
4-Bromofluorobenzene	460-00-4	110		%	70-130	06.10.18 11.58	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-27a**
Lab Sample Id: 588112-029

Matrix: Soil
Date Collected: 05.30.18 09.10

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.6	4.97	mg/kg	06.07.18 14.50		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 02.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 02.57	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 02.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 02.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-135	06.06.18 02.57		
o-Terphenyl	84-15-1	88	%	70-135	06.06.18 02.57		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-27a**
Lab Sample Id: 588112-029

Matrix: Soil
Date Collected: 05.30.18 09.10

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.10.18 11.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.10.18 11.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.10.18 11.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.10.18 11.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.10.18 11.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.10.18 11.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.10.18 11.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.10.18 11.40		
4-Bromofluorobenzene	460-00-4	108	%	70-130	06.10.18 11.40		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-28a**
Lab Sample Id: 588112-030

Matrix: Soil
Date Collected: 05.30.18 09.15

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.0	4.96	mg/kg	06.07.18 14.56		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 03.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 03.18	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 03.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 03.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	06.06.18 03.18	
o-Terphenyl	84-15-1	93	%	70-135	06.06.18 03.18	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-28a**
Lab Sample Id: 588112-030

Matrix: Soil
Date Collected: 05.30.18 09.15

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.10.18 11.22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.10.18 11.22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.10.18 11.22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.10.18 11.22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.10.18 11.22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.10.18 11.22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.10.18 11.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.10.18 11.22		
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.10.18 11.22		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-29a**
Lab Sample Id: 588112-031

Matrix: Soil
Date Collected: 05.30.18 09.20

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	168	4.94	mg/kg	06.07.18 15.01		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 04.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 04.20	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 04.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 04.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-135	06.06.18 04.20		
o-Terphenyl	84-15-1	92	%	70-135	06.06.18 04.20		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-29a**
Lab Sample Id: 588112-031

Matrix: Soil
Date Collected: 05.30.18 09.20

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.10.18 11.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.10.18 11.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.10.18 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.10.18 11.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.10.18 11.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.10.18 11.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.10.18 11.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	06.10.18 11.04		
4-Bromofluorobenzene	460-00-4	100	%	70-130	06.10.18 11.04		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-30a**
Lab Sample Id: 588112-032

Matrix: Soil
Date Collected: 05.30.18 09.25

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.1	4.93	mg/kg	06.07.18 15.17		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 04.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 04.41	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 04.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 04.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-135	06.06.18 04.41		
o-Terphenyl	84-15-1	90	%	70-135	06.06.18 04.41		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-30a**
Lab Sample Id: 588112-032

Matrix: Soil
Date Collected: 05.30.18 09.25

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.10.18 10.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.10.18 10.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.10.18 10.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.10.18 10.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.10.18 10.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.10.18 10.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.10.18 10.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.10.18 10.46		
4-Bromofluorobenzene	460-00-4	100	%	70-130	06.10.18 10.46		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-31a**
Lab Sample Id: 588112-033

Matrix: Soil
Date Collected: 05.30.18 09.30

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052758

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	246	4.99	mg/kg	06.07.18 15.23		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052407

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.06.18 05.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	06.06.18 05.01	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.06.18 05.01	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.06.18 05.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-135	06.06.18 05.01		
o-Terphenyl	84-15-1	90	%	70-135	06.06.18 05.01		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-31a**
Lab Sample Id: 588112-033

Matrix: Soil
Date Collected: 05.30.18 09.30

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.10.18 10.28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.10.18 10.28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.10.18 10.28	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	06.10.18 10.28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.10.18 10.28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.10.18 10.28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.10.18 10.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.10.18 10.28		
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.10.18 10.28		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-32a**
Lab Sample Id: 588112-034

Matrix: Soil
Date Collected: 05.30.18 09.35

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Seq Number: 3052758

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	47.9	4.97	mg/kg	06.07.18 15.39		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Seq Number: 3052407

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 05.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 05.22	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 05.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 05.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	06.06.18 05.22	
o-Terphenyl	84-15-1	87	%	70-135	06.06.18 05.22	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-32a**
Lab Sample Id: 588112-034

Matrix: Soil
Date Collected: 05.30.18 09.35

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.10.18 10.10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.10.18 10.10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.10.18 10.10	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.10.18 10.10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.10.18 10.10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.10.18 10.10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.10.18 10.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.10.18 10.10		
4-Bromofluorobenzene	460-00-4	92	%	70-130	06.10.18 10.10		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-33a**
Lab Sample Id: 588112-035

Matrix: Soil
Date Collected: 05.30.18 09.40

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	172	4.95	mg/kg	06.07.18 15.44		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 05.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 05.42	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 05.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 05.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-135	06.06.18 05.42		
o-Terphenyl	84-15-1	92	%	70-135	06.06.18 05.42		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-33a**
Lab Sample Id: 588112-035

Matrix: Soil
Date Collected: 05.30.18 09.40

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.10.18 09.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.10.18 09.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.10.18 09.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.10.18 09.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.10.18 09.51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.10.18 09.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.10.18 09.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.10.18 09.51		
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.10.18 09.51		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-34a**
Lab Sample Id: 588112-036

Matrix: Soil
Date Collected: 05.30.18 09.45

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052758

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.1	4.96	mg/kg	06.07.18 15.50		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052407

Prep Method: TX1005P

% Moisture:

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 06.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 06.03	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 06.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 06.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	06.06.18 06.03	
o-Terphenyl	84-15-1	88	%	70-135	06.06.18 06.03	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-34a**
Lab Sample Id: 588112-036

Matrix: Soil
Date Collected: 05.30.18 09.45

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.10.18 09.33	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.10.18 09.33	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.10.18 09.33	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.10.18 09.33	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.10.18 09.33	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.10.18 09.33	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.10.18 09.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.10.18 09.33		
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.10.18 09.33		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-36a**
Lab Sample Id: 588112-037

Matrix: Soil
Date Collected: 05.30.18 09.55

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	92.4	4.96	mg/kg	06.07.18 15.55		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 06.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 06.24	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 06.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 06.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-135	06.06.18 06.24		
o-Terphenyl	84-15-1	91	%	70-135	06.06.18 06.24		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-36a**
Lab Sample Id: 588112-037

Matrix: Soil
Date Collected: 05.30.18 09.55

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.10.18 09.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.10.18 09.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.10.18 09.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.10.18 09.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.10.18 09.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.10.18 09.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.10.18 09.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	06.10.18 09.15		
1,4-Difluorobenzene	540-36-3	93	%	70-130	06.10.18 09.15		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-37a**
Lab Sample Id: 588112-038

Matrix: Soil
Date Collected: 05.30.18 10.00

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	180	4.99	mg/kg	06.07.18 16.00		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 06.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 06.45	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 06.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 06.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	92	%	70-135	06.06.18 06.45		
o-Terphenyl	84-15-1	91	%	70-135	06.06.18 06.45		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-37a**
Lab Sample Id: 588112-038

Matrix: Soil
Date Collected: 05.30.18 10.00

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.10.18 08.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.10.18 08.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.10.18 08.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.10.18 08.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.10.18 08.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.10.18 08.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.10.18 08.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.10.18 08.12		
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.10.18 08.12		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-38a**
Lab Sample Id: 588112-039

Matrix: Soil
Date Collected: 05.30.18 10.20

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052758

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 09.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	76.0	5.00	mg/kg	06.07.18 16.13		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052407

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.05.18 15.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 07.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 07.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 07.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 07.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	87	%	70-135	06.06.18 07.05		
o-Terphenyl	84-15-1	87	%	70-135	06.06.18 07.05		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-38a**
Lab Sample Id: 588112-039

Matrix: Soil
Date Collected: 05.30.18 10.20

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.10.18 07.52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.10.18 07.52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.10.18 07.52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.10.18 07.52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.10.18 07.52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.10.18 07.52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.10.18 07.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.10.18 07.52		
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.10.18 07.52		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-39a**
Lab Sample Id: 588112-040

Matrix: Soil
Date Collected: 05.30.18 10.30

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.07.18 09.15

Basis: Wet Weight

Seq Number: 3052758

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.1	4.97	mg/kg	06.07.18 16.18		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.05.18 15.00

Basis: Wet Weight

Seq Number: 3052407

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 07.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 07.26	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 07.26	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 07.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	06.06.18 07.26	
o-Terphenyl	84-15-1	91	%	70-135	06.06.18 07.26	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-39a**
Lab Sample Id: 588112-040

Matrix: Soil
Date Collected: 05.30.18 10.30

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.10.18 07.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.10.18 07.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.10.18 07.34	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.10.18 07.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.10.18 07.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.10.18 07.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.10.18 07.34	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98		%	70-130	06.10.18 07.34	
1,4-Difluorobenzene	540-36-3	88		%	70-130	06.10.18 07.34	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-40a**
Lab Sample Id: 588112-041

Matrix: Soil
Date Collected: 05.30.18 10.40

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3053587

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 06.14.18 17.15

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3890	49.0	mg/kg	06.14.18 19.23		10

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052527

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 06.06.18 10.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 13.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 13.06	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 13.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 13.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-135	06.06.18 13.06		
o-Terphenyl	84-15-1	106	%	70-135	06.06.18 13.06		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-40a**
Lab Sample Id: 588112-041

Matrix: Soil
Date Collected: 05.30.18 10.40

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.10.18 05.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.10.18 05.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.10.18 05.32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.10.18 05.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.10.18 05.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.10.18 05.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.10.18 05.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.10.18 05.32		
1,4-Difluorobenzene	540-36-3	93	%	70-130	06.10.18 05.32		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-41a**
Lab Sample Id: 588112-042

Matrix: Soil
Date Collected: 05.30.18 11.00

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052759

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 12.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2640	24.7	mg/kg	06.07.18 17.50		5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052527

Prep Method: TX1005P

% Moisture:

Date Prep: 06.06.18 10.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 14.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 14.07	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 14.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 14.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-135	06.06.18 14.07		
o-Terphenyl	84-15-1	97	%	70-135	06.06.18 14.07		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-41a**
Lab Sample Id: 588112-042

Matrix: Soil
Date Collected: 05.30.18 11.00

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.10.18 05.48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.10.18 05.48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.10.18 05.48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.10.18 05.48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.10.18 05.48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.10.18 05.48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.10.18 05.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.10.18 05.48		
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.10.18 05.48		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-41b**
Lab Sample Id: 588112-043

Matrix: Soil
Date Collected: 05.31.18 09.30

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3052759

Prep Method: E300P

% Moisture:

Date Prep: 06.07.18 12.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	84.8	4.92	mg/kg	06.07.18 17.55		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3052527

Prep Method: TX1005P

% Moisture:

Date Prep: 06.06.18 10.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 14.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 14.28	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 14.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 14.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	06.06.18 14.28	
o-Terphenyl	84-15-1	86	%	70-135	06.06.18 14.28	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-41b**
Lab Sample Id: 588112-043

Matrix: Soil
Date Collected: 05.31.18 09.30

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.10.18 06.06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.10.18 06.06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.10.18 06.06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.10.18 06.06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.10.18 06.06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.10.18 06.06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.10.18 06.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	06.10.18 06.06		
1,4-Difluorobenzene	540-36-3	117	%	70-130	06.10.18 06.06		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-42a**
Lab Sample Id: 588112-044

Matrix: Soil
Date Collected: 05.30.18 11.20

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052759

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 12.30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	657	4.98	mg/kg	06.07.18 18.01		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052527

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.06.18 10.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 14.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 14.49	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 14.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 14.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	06.06.18 14.49		
o-Terphenyl	84-15-1	91	%	70-135	06.06.18 14.49		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-42a**
Lab Sample Id: 588112-044

Matrix: Soil
Date Collected: 05.30.18 11.20

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.10.18 06.24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.10.18 06.24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.10.18 06.24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.10.18 06.24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.10.18 06.24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.10.18 06.24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.10.18 06.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	06.10.18 06.24		
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.10.18 06.24		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-42b**
Lab Sample Id: 588112-045

Matrix: Soil
Date Collected: 05.31.18 12.00

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.14.18 17.15

Basis: Wet Weight

Seq Number: 3053587

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	579	4.95	mg/kg	06.14.18 19.29		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.06.18 10.00

Basis: Wet Weight

Seq Number: 3052527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 15.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 15.09	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 15.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 15.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	06.06.18 15.09		
o-Terphenyl	84-15-1	91	%	70-135	06.06.18 15.09		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-42b**
Lab Sample Id: 588112-045

Matrix: Soil
Date Collected: 05.31.18 12.00

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.10.18 06.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.10.18 06.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.10.18 06.40	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.10.18 06.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.10.18 06.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.10.18 06.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.10.18 06.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.10.18 06.40		
4-Bromofluorobenzene	460-00-4	100	%	70-130	06.10.18 06.40		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-44a**
Lab Sample Id: 588112-046

Matrix: Soil
Date Collected: 05.31.18 11.45

Date Received: 06.05.18 11.00

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3052759

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 06.07.18 12.30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	4.98	mg/kg	06.07.18 18.30		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3052527

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 06.06.18 10.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 15.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 15.30	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 15.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 15.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	86	%	70-135	06.06.18 15.30		
o-Terphenyl	84-15-1	90	%	70-135	06.06.18 15.30		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **Wall-44a**
Lab Sample Id: 588112-046

Matrix: Soil
Date Collected: 05.31.18 11.45

Date Received: 06.05.18 11.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.10.18 06.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.10.18 06.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.10.18 06.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.10.18 06.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.10.18 06.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.10.18 06.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.10.18 06.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.10.18 06.58		
1,4-Difluorobenzene	540-36-3	88	%	70-130	06.10.18 06.58		



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **SP-5 @ 5.5'a**

Matrix: Soil

Date Received: 06.05.18 11.00

Lab Sample Id: 588112-047

Date Collected: 05.31.18 10.28

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.07.18 12.30

Basis: Wet Weight

Seq Number: 3052759

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	454	4.97	mg/kg	06.07.18 18.35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.06.18 10.00

Basis: Wet Weight

Seq Number: 3052527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.06.18 15.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.06.18 15.50	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.06.18 15.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.06.18 15.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	06.06.18 15.50	
o-Terphenyl	84-15-1	92	%	70-135	06.06.18 15.50	



Certificate of Analytical Results 588112



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage Fee B Com 0001H

Sample Id: **SP-5 @ 5.5'a**

Matrix: Soil

Date Received: 06.05.18 11.00

Lab Sample Id: 588112-047

Date Collected: 05.31.18 10.28

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.09.18 10.00

Basis: Wet Weight

Seq Number: 3052937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.10.18 07.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.10.18 07.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.10.18 07.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.10.18 07.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.10.18 07.16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.10.18 07.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.10.18 07.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.10.18 07.16		
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.10.18 07.16		



Flagging Criteria



- 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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



Trinity Oilfield Services & Rentals, LLC

Osage Fee B Com 0001H

Analytical Method: Chloride by EPA 300

Seq Number: 3052756

MB Sample Id: 7656177-1-BLK

Matrix: Solid

LCS Sample Id: 7656177-1-BKS

Prep Method: E300P

Date Prep: 06.07.18

LCSD Sample Id: 7656177-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	270	108	270	108	90-110	0	20	mg/kg	06.07.18 09:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3052758

MB Sample Id: 7656179-1-BLK

Matrix: Solid

LCS Sample Id: 7656179-1-BKS

Prep Method: E300P

Date Prep: 06.07.18

LCSD Sample Id: 7656179-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	274	110	275	110	90-110	0	20	mg/kg	06.07.18 13:29	

Analytical Method: Chloride by EPA 300

Seq Number: 3052759

MB Sample Id: 7656203-1-BLK

Matrix: Solid

LCS Sample Id: 7656203-1-BKS

Prep Method: E300P

Date Prep: 06.07.18

LCSD Sample Id: 7656203-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	275	110	269	108	90-110	2	20	mg/kg	06.07.18 16:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3053587

MB Sample Id: 7656736-1-BLK

Matrix: Solid

LCS Sample Id: 7656736-1-BKS

Prep Method: E300P

Date Prep: 06.14.18

LCSD Sample Id: 7656736-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	251	100	250	100	90-110	0	20	mg/kg	06.15.18 15:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3052756

Parent Sample Id: 588112-001

Matrix: Soil

MS Sample Id: 588112-001 S

Prep Method: E300P

Date Prep: 06.07.18

MSD Sample Id: 588112-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	44.1	250	299	102	310	106	90-110	4	20	mg/kg	06.07.18 09:53	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



Trinity Oilfield Services & Rentals, LLC

Osage Fee B Com 0001H

Analytical Method: Chloride by EPA 300

Seq Number: 3052756

Parent Sample Id: 588112-011

Matrix: Soil

MS Sample Id: 588112-011 S

Prep Method: E300P

Date Prep: 06.07.18

MSD Sample Id: 588112-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.9	248	283	106	277	104	90-110	2	20	mg/kg	06.07.18 11:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3052758

Parent Sample Id: 588112-021

Matrix: Soil

MS Sample Id: 588112-021 S

Prep Method: E300P

Date Prep: 06.07.18

MSD Sample Id: 588112-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	83.3	248	365	114	360	112	90-110	1	20	mg/kg	06.07.18 13:51	X

Analytical Method: Chloride by EPA 300

Seq Number: 3052758

Parent Sample Id: 588112-031

Matrix: Soil

MS Sample Id: 588112-031 S

Prep Method: E300P

Date Prep: 06.07.18

MSD Sample Id: 588112-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	168	247	434	108	428	105	90-110	1	20	mg/kg	06.07.18 15:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3052759

Parent Sample Id: 588112-045

Matrix: Soil

MS Sample Id: 588112-045 S

Prep Method: E300P

Date Prep: 06.07.18

MSD Sample Id: 588112-045 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	913	248	913	0	887	0	90-110	3	20	mg/kg	06.07.18 18:19	X

Analytical Method: Chloride by EPA 300

Seq Number: 3052759

Parent Sample Id: 588300-001

Matrix: Soil

MS Sample Id: 588300-001 S

Prep Method: E300P

Date Prep: 06.07.18

MSD Sample Id: 588300-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.97	249	274	110	276	111	90-110	1	20	mg/kg	06.07.18 16:56	X

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



Trinity Oilfield Services & Rentals, LLC

Osage Fee B Com 0001H

Analytical Method: Chloride by EPA 300

Seq Number: 3053587

Parent Sample Id: 588112-003

Matrix: Soil

MS Sample Id: 588112-003 S

Prep Method: E300P

Date Prep: 06.14.18

MSD Sample Id: 588112-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	725	250	1000	110	1000	110	90-110	0	20	mg/kg	06.15.18 15:51	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3052405

MB Sample Id: 7656064-1-BLK

Matrix: Solid

LCS Sample Id: 7656064-1-BKS

Prep Method: TX1005P

Date Prep: 06.05.18

LCSD Sample Id: 7656064-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	886	89	860	86	70-135	3	20	mg/kg	06.05.18 13:09	
Diesel Range Organics (DRO)	<15.0	1000	915	92	880	88	70-135	4	20	mg/kg	06.05.18 13:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		119		111		70-135	%	06.05.18 13:09
o-Terphenyl	93		106		100		70-135	%	06.05.18 13:09

Analytical Method: TPH By SW8015 Mod

Seq Number: 3052407

MB Sample Id: 7656071-1-BLK

Matrix: Solid

LCS Sample Id: 7656071-1-BKS

Prep Method: TX1005P

Date Prep: 06.05.18

LCSD Sample Id: 7656071-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	921	92	930	93	70-135	1	20	mg/kg	06.05.18 22:49	
Diesel Range Organics (DRO)	<15.0	1000	936	94	950	95	70-135	1	20	mg/kg	06.05.18 22:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		121		127		70-135	%	06.05.18 22:49
o-Terphenyl	100		105		114		70-135	%	06.05.18 22:49

Analytical Method: TPH By SW8015 Mod

Seq Number: 3052527

MB Sample Id: 7656148-1-BLK

Matrix: Solid

LCS Sample Id: 7656148-1-BKS

Prep Method: TX1005P

Date Prep: 06.06.18

LCSD Sample Id: 7656148-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	979	98	953	95	70-135	3	20	mg/kg	06.06.18 12:25	
Diesel Range Organics (DRO)	<15.0	1000	1060	106	1010	101	70-135	5	20	mg/kg	06.06.18 12:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		125		125		70-135	%	06.06.18 12:25
o-Terphenyl	97		124		118		70-135	%	06.06.18 12:25

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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



Trinity Oilfield Services & Rentals, LLC

Osage Fee B Com 0001H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3052405

Parent Sample Id: 588112-001

Matrix: Soil

MS Sample Id: 588112-001 S

Prep Method: TX1005P

Date Prep: 06.05.18

MSD Sample Id: 588112-001 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	997	878	88	879	88	70-135	0	20	mg/kg	06.05.18 14:11	
Diesel Range Organics (DRO)	<15.0	997	890	89	903	91	70-135	1	20	mg/kg	06.05.18 14:11	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		111		70-135	%	06.05.18 14:11
o-Terphenyl	99		101		70-135	%	06.05.18 14:11

Analytical Method: TPH By SW8015 Mod

Seq Number: 3052407

Parent Sample Id: 588112-021

Matrix: Soil

MS Sample Id: 588112-021 S

Prep Method: TX1005P

Date Prep: 06.05.18

MSD Sample Id: 588112-021 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	999	926	93	925	93	70-135	0	20	mg/kg	06.05.18 23:51	
Diesel Range Organics (DRO)	<15.0	999	947	95	937	94	70-135	1	20	mg/kg	06.05.18 23:51	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		112		70-135	%	06.05.18 23:51
o-Terphenyl	103		98		70-135	%	06.05.18 23:51

Analytical Method: TPH By SW8015 Mod

Seq Number: 3052527

Parent Sample Id: 588112-041

Matrix: Soil

MS Sample Id: 588112-041 S

Prep Method: TX1005P

Date Prep: 06.06.18

MSD Sample Id: 588112-041 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	999	872	87	895	90	70-135	3	20	mg/kg	06.06.18 13:26	
Diesel Range Organics (DRO)	<15.0	999	909	91	935	94	70-135	3	20	mg/kg	06.06.18 13:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		109		70-135	%	06.06.18 13:26
o-Terphenyl	96		98		70-135	%	06.06.18 13:26

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



Trinity Oilfield Services & Rentals, LLC

Osage Fee B Com 0001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052930

MB Sample Id: 7656351-1-BLK

Matrix: Solid

LCS Sample Id: 7656351-1-BKS

Prep Method: SW5030B

Date Prep: 06.08.18

LCSD Sample Id: 7656351-1-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	0.0836	84	0.0828	82	70-130	1	35	mg/kg	06.09.18 09:58	
Toluene	<0.00200	0.100	0.0876	88	0.0895	89	70-130	2	35	mg/kg	06.09.18 09:58	
Ethylbenzene	<0.00200	0.100	0.0863	86	0.0863	85	70-130	0	35	mg/kg	06.09.18 09:58	
m,p-Xylenes	<0.00401	0.200	0.179	90	0.179	89	70-130	0	35	mg/kg	06.09.18 09:58	
o-Xylene	<0.00200	0.100	0.0870	87	0.0844	84	70-130	3	35	mg/kg	06.09.18 09:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		101		101		70-130	%	06.09.18 09:58
4-Bromofluorobenzene	96		95		97		70-130	%	06.09.18 09:58

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052932

MB Sample Id: 7656352-1-BLK

Matrix: Solid

LCS Sample Id: 7656352-1-BKS

Prep Method: SW5030B

Date Prep: 06.09.18

LCSD Sample Id: 7656352-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0866	86	0.0847	85	70-130	2	35	mg/kg	06.09.18 18:38	
Toluene	<0.00202	0.101	0.0902	89	0.0897	90	70-130	1	35	mg/kg	06.09.18 18:38	
Ethylbenzene	<0.00202	0.101	0.0922	91	0.0914	91	70-130	1	35	mg/kg	06.09.18 18:38	
m,p-Xylenes	<0.00403	0.202	0.192	95	0.187	94	70-130	3	35	mg/kg	06.09.18 18:38	
o-Xylene	<0.00202	0.101	0.0929	92	0.0977	98	70-130	5	35	mg/kg	06.09.18 18:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		95		94		70-130	%	06.09.18 18:38
4-Bromofluorobenzene	93		95		99		70-130	%	06.09.18 18:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052937

MB Sample Id: 7656353-1-BLK

Matrix: Solid

LCS Sample Id: 7656353-1-BKS

Prep Method: SW5030B

Date Prep: 06.09.18

LCSD Sample Id: 7656353-1-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	0.0804	81	0.0740	74	70-130	8	35	mg/kg	06.10.18 03:43	
Toluene	<0.00200	0.0998	0.0844	85	0.0806	81	70-130	5	35	mg/kg	06.10.18 03:43	
Ethylbenzene	<0.00200	0.0998	0.0840	84	0.0789	79	70-130	6	35	mg/kg	06.10.18 03:43	
m,p-Xylenes	<0.00399	0.200	0.172	86	0.164	82	70-130	5	35	mg/kg	06.10.18 03:43	
o-Xylene	<0.00200	0.0998	0.0885	89	0.0820	82	70-130	8	35	mg/kg	06.10.18 03:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		94		91		70-130	%	06.10.18 03:43
4-Bromofluorobenzene	100		92		113		70-130	%	06.10.18 03:43

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

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



Trinity Oilfield Services & Rentals, LLC

Osage Fee B Com 0001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052970

MB Sample Id: 7656395-1-BLK

Matrix: Solid

LCS Sample Id: 7656395-1-BKS

Prep Method: SW5030B

Date Prep: 06.10.18

LCSD Sample Id: 7656395-1-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	0.0879	88	0.0862	85	70-130	2	35	mg/kg	06.10.18 19:28	
Toluene	<0.00200	0.100	0.0934	93	0.0907	90	70-130	3	35	mg/kg	06.10.18 19:28	
Ethylbenzene	<0.00200	0.100	0.0917	92	0.0893	88	70-130	3	35	mg/kg	06.10.18 19:28	
m,p-Xylenes	<0.00401	0.200	0.189	95	0.185	92	70-130	2	35	mg/kg	06.10.18 19:28	
o-Xylene	<0.00200	0.100	0.0921	92	0.0897	89	70-130	3	35	mg/kg	06.10.18 19:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		99		94		70-130	%	06.10.18 19:28
4-Bromofluorobenzene	87		98		94		70-130	%	06.10.18 19:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052930

Parent Sample Id: 588112-001

Matrix: Soil

MS Sample Id: 588112-001 S

Prep Method: SW5030B

Date Prep: 06.08.18

MSD Sample Id: 588112-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0565	57	0.0447	45	70-130	23	35	mg/kg	06.09.18 10:35	X
Toluene	<0.00200	0.0998	0.0558	56	0.0496	50	70-130	12	35	mg/kg	06.09.18 10:35	X
Ethylbenzene	<0.00200	0.0998	0.0483	48	0.0461	46	70-130	5	35	mg/kg	06.09.18 10:35	X
m,p-Xylenes	<0.00399	0.200	0.0960	48	0.0949	47	70-130	1	35	mg/kg	06.09.18 10:35	X
o-Xylene	<0.00200	0.0998	0.0537	54	0.0469	47	70-130	14	35	mg/kg	06.09.18 10:35	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		92		70-130	%	06.09.18 10:35
4-Bromofluorobenzene	104		96		70-130	%	06.09.18 10:35

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052932

Parent Sample Id: 588112-021

Matrix: Soil

MS Sample Id: 588112-021 S

Prep Method: SW5030B

Date Prep: 06.09.18

MSD Sample Id: 588112-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0473	47	0.0544	55	70-130	14	35	mg/kg	06.09.18 19:16	X
Toluene	<0.00200	0.100	0.0502	50	0.0567	57	70-130	12	35	mg/kg	06.09.18 19:16	X
Ethylbenzene	<0.00200	0.100	0.0468	47	0.0537	54	70-130	14	35	mg/kg	06.09.18 19:16	X
m,p-Xylenes	<0.00401	0.200	0.0968	48	0.111	56	70-130	14	35	mg/kg	06.09.18 19:16	X
o-Xylene	<0.00200	0.100	0.0465	47	0.0653	66	70-130	34	35	mg/kg	06.09.18 19:16	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		106		70-130	%	06.09.18 19:16
4-Bromofluorobenzene	95		104		70-130	%	06.09.18 19:16

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

[D] = 100*(C-A) / B
RPD = 200 * |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



Trinity Oilfield Services & Rentals, LLC

Osage Fee B Com 0001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052937

Parent Sample Id: 588112-041

Matrix: Soil

MS Sample Id: 588112-041 S

Prep Method: SW5030B

Date Prep: 06.09.18

MSD Sample Id: 588112-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0567	56	0.0581	58	70-130	2	35	mg/kg	06.10.18 04:19	X
Toluene	<0.00202	0.101	0.0596	59	0.0596	59	70-130	0	35	mg/kg	06.10.18 04:19	X
Ethylbenzene	<0.00202	0.101	0.0591	59	0.0572	57	70-130	3	35	mg/kg	06.10.18 04:19	X
m,p-Xylenes	<0.00403	0.202	0.122	60	0.119	59	70-130	2	35	mg/kg	06.10.18 04:19	X
o-Xylene	<0.00202	0.101	0.0566	56	0.0555	55	70-130	2	35	mg/kg	06.10.18 04:19	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		93		70-130	%	06.10.18 04:19
4-Bromofluorobenzene	127		120		70-130	%	06.10.18 04:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3052970

Parent Sample Id: 588647-004

Matrix: Soil

MS Sample Id: 588647-004 S

Prep Method: SW5030B

Date Prep: 06.10.18

MSD Sample Id: 588647-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0756	75	0.0760	75	70-130	1	35	mg/kg	06.10.18 20:04	
Toluene	<0.00202	0.101	0.0813	80	0.0797	79	70-130	2	35	mg/kg	06.10.18 20:04	
Ethylbenzene	<0.00202	0.101	0.0814	81	0.0819	81	70-130	1	35	mg/kg	06.10.18 20:04	
m,p-Xylenes	<0.00404	0.202	0.167	83	0.171	85	70-130	2	35	mg/kg	06.10.18 20:04	
o-Xylene	<0.00202	0.101	0.0767	76	0.0782	77	70-130	2	35	mg/kg	06.10.18 20:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	06.10.18 20:04
4-Bromofluorobenzene	104		106		70-130	%	06.10.18 20:04

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

Revision Date: Nov 12, 2009



CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

Page 3 of 5

LAB W.O # :

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
GA Glass Amber TB Tedlar Bag
GC Glass Clear ZB Zip Lock Bag
PA Plastic Amber PC Plastic Clear
Other _____

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

** Preservative Type Codes

A. None E. HCL I. Ice C.
B. HNO₃ F. MeOH J. MCAA
H₂SO₄ G. Na₂S₂O₅ K. ZnAc/NaOH
D. NaOH H. NaHSO₄ L. Asbic Acid/NaOH
O. _____

^ Matrix Type Codes

GW Ground Water S Soil/Sediment/Solid
WW 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

REMARKS

Company: Trinity Oilfield Services & Rentals, LLC Phone: (575)390-7208
Address: P.O. Box 2587 Fax: _____
City: Hobbs State: NM Zip: 88241
PM/Attn: Ben J. Arguijo Email: wade.dittrich@oxy.com & ben@trinityoilfieldservices.com
Project ID: Osage Fee B Com 0001H PO#: _____
Invoice To: Oxy - Wade Dittrich (575)390-2828 Quote #: _____

Sampler Name: Tristan Payne Circle One Event: Daily Weekly Monthly Quarterly
Semi-Annual Annual N/A

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	TPH	BTEX	Chloride	Hold Sample (CALL) on Highest TPH Only
1	Wall-20b	5/31/18	1255	S			1	X				
2	Wall-21a	5/29/18	1430	S			1	X				
3	Wall-21b	5/31/18	1245	S			1	X				
4	Wall-22a	5/29/18	1435	S			1	X				
5	Wall-23a	5/29/18	1445	S			1	X				
6	Wall-24a	5/29/18	1455	S			1	X				
7	Wall-25a	5/30/18	0900	S			1	X				
8	Wall-26a	5/30/18	0909	S			1	X				
9	Wall-27a	5/30/18	0910	S			1	X				
0	Wall-28a	5/30/18	0915	S			1	X				

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/A
CTLs TRRP DW NPDES LPST DryCln Other: FL TX GA NC SC NJ PA OK 1 2 3 4 CLP AFCEE QAPP NELAC ADAPT SEDD ERPIMS Match Incomplete 142 24.13 R800.0 Non-Conformances found? _____
LA AL NM Other: DoD-ELAP Other: XLS Other: Absent Unclear Samples intact upon arrival? _____
Relinquished by Affiliation Date Time Received by Affiliation Date Time Received on Wet Ice? _____
1 [Signature] Trinity 6-4-18 1:00pm [Signature] Xenco 6-9-18 1:00pm Labeled with proper preservatives? _____
2 [Signature] 6-4-18 4:35pm [Signature] Xenco 6/5/18 11:00 Received within holding time? _____
3 _____ _____ _____ _____ Custody seals intact? _____
4 _____ _____ _____ _____ VOCs rec'd w/o headspace? _____
Proper containers used? _____
pH verified-acceptable, excl VOCs? _____
Received on time to meet HTs? _____

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

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C.O.C. Serial #



CHAIN OF CUSTODY RECORD

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LAB W.O # :

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
GA	Glass Amber	TB	Tedlar Bag
GC	Glass Clear	ZB	Zip Lock Bag
PA	Plastic Amber	PC	Plastic Clear
PC	Plastic Clear		
Other			

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

** Preservative Type Codes

A. None E. HCL I. Ice
B. HNO₃ F. MeOH J. MCAA C
H₂SO₄ G. Na₂S₂O₃ K. ZnAc&NaOH
D. NaOH H. NaHSO₄ L. Asbic Acid&NaOH
O

^ Matrix Type Codes

GW	Ground Water	S	Soil/Sediment/Solid
WW	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		

REMARKS

Company: Trinity Oilfield Services & Rentals, LLC							Phone: (575)390-7208		TAT Work Days = D Need results by: _____ Time: _____						Field Billable Hrs: _____ PA Plastic Amber PC Plastic Clear Other _____											
Address: P.O. Box 2587							Fax:		Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other _____						Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____											
City: Hobbs					State: NM		Zip: 88241		ANALYSES REQUESTED											** Preservative Type Codes						
PM/Attn: Ben J. Arguijo					Email: wade.ditrich@oxy.com & ben@trinityoilfieldservices.com					Cont Type * VC		GC	GC	GC								A. None E. HCL I. Ice B. HNO ₃ F. MeOH J. MCAA C. H ₂ SO ₄ G. Na ₂ S ₂ O ₃ K. ZnAc&NaOH D. NaOH H. NaHSO ₄ L. Asbc Acid&NaOH O. _____				
Project ID: Osage Fee B Com 0001H					PO#:					Pres Type**		I	I	I												
Invoice To: Oxy - Wade Ditrich (575)390-2828					Quote #:					Example Volatiles by 8260		TPH 8015M	BTEx	Chloride								^ Matrix Type Codes				
Sampler Name: Tristan Payne					Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A																	GW Ground Water S Soil/Sediment/Solid WW 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 _____				
Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	# Cont	Lab Only:											(CALL) Run PAH on Highest TPH Only	REMARKS					
1	Wall-29a	5/30/18	0920	S			1		X	See Remarks											Run BTEx if TPH <= 5,000					
2	Wall-30a	5/30/18	0925	S			1		X															Run BTEx if TPH <= 5,000		
3	Wall-31a	5/30/18	0930	S			1		X															Run BTEx if TPH <= 5,000		
4	Wall-32a	5/30/18	0935	S			1		X															Run BTEx if TPH <= 5,000		
5	Wall-33a	5/30/18	0940	S			1		X															Run BTEx if TPH <= 5,000		
6	Wall-34a	5/30/18	0945	S			1		X															Run BTEx if TPH <= 5,000		
7	Wall-36a	5/30/18	0955	S			1		X															Run BTEx if TPH <= 5,000		
8	Wall-37a	5/30/18	1000	S			1		X															Run BTEx if TPH <= 5,000		
9	Wall-38a	5/30/18	1020	S			1		X															Run BTEx if TPH <= 5,000		
0	Wall-39a	5/30/18	1030	S			1		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/A								
CTLs TRRP DW NPDES LPST DryCln Other:				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 Absent Unclear		142 2413 R800C		Non-Conformances found? _____								
Relinquished by:				Affiliation:				Date:				Time:				Received by:		Affiliation:		Date:		Time:				
1				Trinity				6-4-18				1:00pm				J. Heaney		Xenco		6-4-18		1:00pm				
2								10-4-18				4:35pm														
3																										
4																										
																Received on Wet ice? _____										
																Labeled with proper preservatives? _____										
																Received within holding time? _____										
																Custody seals intact? _____										
																VOCs rec'd w/o headspace? _____										
																Proper containers used? _____										
																pH verified-acceptable, excl VOCs? _____										
																Received on time to meet HTs? _____										

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

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Revision Date: Nov 12, 2009

Revision Date: Nov 12, 2009

Final 1.001

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CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
70001-c

Page 5 of 5

LAB W.O # :

Field billable Hrs :

588112

* Container Type Codes

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

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

** Preservative Type Codes

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

^ Matrix Type Codes

GW Ground Water	S Soil/Sediment/Solid
WW 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

Company:	Trinity Oilfield Services & Rentals, LLC	Phone:	(575)390-7208
Address:	P.O. Box 2587	Fax:	
City:	Hobbs	State:	NM
		Zip:	88241
PM/Attn:	Ben J. Arguijo	Email:	wade.dittrich@oxy.com & ben@trinityoilfieldservices.com
Project ID:	Osage Fee B Com 0001H	PO#:	
Invoice To:	Oxy - Wade Dittrich (575)390-2828	Quote #:	

Sampler Name:	Tristan Payne	Circle One Event:	Daily Weekly Monthly Quarterly
		Semi-Annual	Annual N/A

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	# Cont	Lab Only:
1	Wall-40a	5/30/18	1040	S			1	TPH 8015M		X
2	Wall-41a	5/30/18	1100	S			1	BTEX		X
3	Wall-41b	5/31/18	0930	S			1	Chloride		X
4	Wall-42a	5/30/18	1120	S			1			X
5	Wall-42b	5/31/18	1200	S			1			X
6	Wall-44a	5/31/18	1145	S			1			X
7	SP-5 @ 5.5'	5/31/18	1028	S			1			X
8										
9										
0										

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C	Lab Use Only	
CTLs TRRP DW NPDES LPST DryCln Other:	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 Absent Unclear	14224-13 R800	Non-Conformances found? Samples intact upon arrival?	
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Trinity	6-4-18	1:00pm	Sheamus		6-4-18	1:00pm
2		6-4-18	4:35pm	Xenoco	Xenoco	6/5/18	11:00
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 Phoenix 602-437-0330
FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

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Revision Date: Nov 12, 2009

C.O.C. Serial #



Client: Trinity Oilfield Services & Rentals, LLC

Date/ Time Received: 06/05/2018 11:00:00 AM

Work Order #: 588112

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#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:

Katie Lowe

Date: 06/05/2018

Checklist reviewed by:

Holly Taylor

Date: 06/05/2018



Certificate of Analysis Summary 589757

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Osage 18 Fee B Com 001H

Project Id:

Contact: Ben Arguijo

Project Location: NM

Date Received in Lab: Wed Jun-20-18 10:15 am

Report Date: 27-JUN-18

Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	589757-001	589757-002	589757-003	589757-004		
	<i>Field Id:</i>	Wall 3b	Wall 4d	Wall 40c	Wall 5b		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Jun-14-18 10:30	Jun-14-18 11:50	Jun-14-18 12:10	Jun-15-18 09:30		
BTEX by EPA 8021B	<i>Extracted:</i>	Jun-26-18 15:15	Jun-26-18 15:15	Jun-26-18 15:15	Jun-26-18 15:15		
	<i>Analyzed:</i>	Jun-27-18 08:12	Jun-27-18 08:30	Jun-27-18 08:48	Jun-27-18 09:07		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198		
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198		
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198		
m,p-Xylenes		<0.00400 0.00400	<0.00402 0.00402	<0.00401 0.00401	<0.00397 0.00397		
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198		
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198		
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198		
Chloride by EPA 300	<i>Extracted:</i>	Jun-25-18 08:30	Jun-25-18 08:30	Jun-25-18 08:30	Jun-25-18 11:30		
	<i>Analyzed:</i>	Jun-25-18 12:09	Jun-25-18 12:15	Jun-25-18 12:26	Jun-25-18 14:14		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		16.1 4.97	356 4.92	123 4.93	8.89 4.94		
TPH By SW8015 Mod	<i>Extracted:</i>	Jun-21-18 12:00	Jun-21-18 12:00	Jun-21-18 12:00	Jun-21-18 12:00		
	<i>Analyzed:</i>	Jun-21-18 22:58	Jun-21-18 23:18	Jun-21-18 23:38	Jun-21-18 23:58		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		19.2 15.0	20.0 15.0	18.3 15.0	<15.0 15.0		
Diesel Range Organics (DRO)		<15.0 15.0	50.3 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		19.2 15.0	70.3 15.0	18.3 15.0	<15.0 15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager

Analytical Report 589757

for

Trinity Oilfield Services & Rentals, LLC

Project Manager: Ben Arguijo

Osage 18 Fee B Com 001H

27-JUN-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (T104704295-17-16), 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 (T104704400-18-15)

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)

Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)



27-JUN-18

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

Reference: XENCO Report No(s): **589757**
Osage 18 Fee B Com 001H
Project Address: NM

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) 589757. 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. 589757 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,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 589757****Trinity Oilfield Services & Rentals, LLC, Hobbs, NM**

Osage 18 Fee B Com 001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Wall 3b	S	06-14-18 10:30		589757-001
Wall 4d	S	06-14-18 11:50		589757-002
Wall 40c	S	06-14-18 12:10		589757-003
Wall 5b	S	06-15-18 09:30		589757-004



CASE NARRATIVE

Client Name: Trinity Oilfield Services & Rentals, LLC

Project Name: Osage 18 Fee B Com 001H

Project ID:

Work Order Number(s): 589757

Report Date: 27-JUN-18

Date Received: 06/20/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3054711 BTEX by EPA 8021B

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



Certificate of Analytical Results 589757



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 3b**
Lab Sample Id: 589757-001

Matrix: Soil
Date Collected: 06.14.18 10.30

Date Received: 06.20.18 10.15

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3054491

Prep Method: E300P

% Moisture:

Date Prep: 06.25.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.1	4.97	mg/kg	06.25.18 12.09		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3054456

Prep Method: TX1005P

% Moisture:

Date Prep: 06.21.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	19.2	15.0	mg/kg	06.21.18 22.58		1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.21.18 22.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.21.18 22.58	U	1
Total TPH	PHC635	19.2	15.0	mg/kg	06.21.18 22.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	06.21.18 22.58	
o-Terphenyl	84-15-1	73	%	70-135	06.21.18 22.58	



Certificate of Analytical Results 589757



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 3b**
Lab Sample Id: 589757-001

Matrix: Soil
Date Collected: 06.14.18 10.30

Date Received: 06.20.18 10.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.26.18 15.15

Basis: Wet Weight

Seq Number: 3054711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.27.18 08.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.27.18 08.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.27.18 08.12	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.27.18 08.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.27.18 08.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.27.18 08.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.27.18 08.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	06.27.18 08.12		
1,4-Difluorobenzene	540-36-3	116	%	70-130	06.27.18 08.12		



Certificate of Analytical Results 589757



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 4d**
Lab Sample Id: 589757-002

Matrix: Soil
Date Collected: 06.14.18 11.50

Date Received: 06.20.18 10.15

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3054491

Prep Method: E300P

% Moisture:

Date Prep: 06.25.18 08.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	356	4.92	mg/kg	06.25.18 12.15		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3054456

Prep Method: TX1005P

% Moisture:

Date Prep: 06.21.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	20.0	15.0	mg/kg	06.21.18 23.18		1
Diesel Range Organics (DRO)	C10C28DRO	50.3	15.0	mg/kg	06.21.18 23.18		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.21.18 23.18	U	1
Total TPH	PHC635	70.3	15.0	mg/kg	06.21.18 23.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	06.21.18 23.18	
o-Terphenyl	84-15-1	76	%	70-135	06.21.18 23.18	



Certificate of Analytical Results 589757



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 4d**
Lab Sample Id: 589757-002

Matrix: Soil
Date Collected: 06.14.18 11.50

Date Received: 06.20.18 10.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.26.18 15.15

Basis: Wet Weight

Seq Number: 3054711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.27.18 08.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.27.18 08.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.27.18 08.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.27.18 08.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.27.18 08.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.27.18 08.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.27.18 08.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	06.27.18 08.30		
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.27.18 08.30		



Certificate of Analytical Results 589757



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 40c**
Lab Sample Id: 589757-003

Matrix: Soil
Date Collected: 06.14.18 12.10

Date Received: 06.20.18 10.15

Analytical Method: Chloride by EPA 300
Tech: SCM
Analyst: SCM
Seq Number: 3054491

Prep Method: E300P
% Moisture:
Date Prep: 06.25.18 08.30
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	4.93	mg/kg	06.25.18 12.26		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3054456

Prep Method: TX1005P
% Moisture:
Date Prep: 06.21.18 12.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	18.3	15.0	mg/kg	06.21.18 23.38		1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.21.18 23.38	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.21.18 23.38	U	1
Total TPH	PHC635	18.3	15.0	mg/kg	06.21.18 23.38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	77	%	70-135	06.21.18 23.38		
o-Terphenyl	84-15-1	74	%	70-135	06.21.18 23.38		



Certificate of Analytical Results 589757



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 40c**
Lab Sample Id: 589757-003

Matrix: Soil
Date Collected: 06.14.18 12.10

Date Received: 06.20.18 10.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.26.18 15.15

Basis: Wet Weight

Seq Number: 3054711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.27.18 08.48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.27.18 08.48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.27.18 08.48	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.27.18 08.48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.27.18 08.48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.27.18 08.48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.27.18 08.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	06.27.18 08.48		
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.27.18 08.48		



Certificate of Analytical Results 589757



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 5b**
Lab Sample Id: 589757-004

Matrix: Soil
Date Collected: 06.15.18 09.30

Date Received: 06.20.18 10.15

Analytical Method: Chloride by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3054493

Prep Method: E300P

% Moisture:

Date Prep: 06.25.18 11.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.89	4.94	mg/kg	06.25.18 14.14		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3054456

Prep Method: TX1005P

% Moisture:

Date Prep: 06.21.18 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.21.18 23.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.21.18 23.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.21.18 23.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.21.18 23.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	06.21.18 23.58	
o-Terphenyl	84-15-1	81	%	70-135	06.21.18 23.58	



Certificate of Analytical Results 589757

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Osage 18 Fee B Com 001H

Sample Id: **Wall 5b**
 Lab Sample Id: 589757-004

Matrix: Soil
 Date Collected: 06.15.18 09.30

Date Received: 06.20.18 10.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.26.18 15.15

Basis: Wet Weight

Seq Number: 3054711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.27.18 09.07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.27.18 09.07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.27.18 09.07	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.27.18 09.07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.27.18 09.07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.27.18 09.07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.27.18 09.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.27.18 09.07		
1,4-Difluorobenzene	540-36-3	96	%	70-130	06.27.18 09.07		



Flagging Criteria



- 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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B Com 001H

Analytical Method: Chloride by EPA 300

Seq Number: 3054491

MB Sample Id: 7657208-1-BLK

Matrix: Solid

LCS Sample Id: 7657208-1-BKS

Prep Method: E300P

Date Prep: 06.25.18

LCSD Sample Id: 7657208-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	237	95	237	95	90-110	0	20	mg/kg	06.25.18 09:43	

Analytical Method: Chloride by EPA 300

Seq Number: 3054493

MB Sample Id: 7657261-1-BLK

Matrix: Solid

LCS Sample Id: 7657261-1-BKS

Prep Method: E300P

Date Prep: 06.25.18

LCSD Sample Id: 7657261-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	242	97	241	96	90-110	0	20	mg/kg	06.25.18 12:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3054491

Parent Sample Id: 589731-012

Matrix: Soil

MS Sample Id: 589731-012 S

Prep Method: E300P

Date Prep: 06.25.18

MSD Sample Id: 589731-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	821	250	993	69	997	70	90-110	0	20	mg/kg	06.25.18 10:00	X

Analytical Method: Chloride by EPA 300

Seq Number: 3054491

Parent Sample Id: 589755-005

Matrix: Soil

MS Sample Id: 589755-005 S

Prep Method: E300P

Date Prep: 06.25.18

MSD Sample Id: 589755-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.8	246	253	94	253	94	90-110	0	20	mg/kg	06.25.18 11:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3054493

Parent Sample Id: 589757-004

Matrix: Soil

MS Sample Id: 589757-004 S

Prep Method: E300P

Date Prep: 06.25.18

MSD Sample Id: 589757-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.89	247	247	96	246	96	90-110	0	20	mg/kg	06.25.18 14:19	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B Com 001H

Analytical Method: Chloride by EPA 300

Seq Number: 3054493

Parent Sample Id: 590236-001

Matrix: Soil

MS Sample Id: 590236-001 S

Prep Method: E300P

Date Prep: 06.25.18

MSD Sample Id: 590236-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	897	250	1070	69	1070	69	90-110	0	20	mg/kg	06.25.18 13:04	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3054456

MB Sample Id: 7657122-1-BLK

Matrix: Solid

LCS Sample Id: 7657122-1-BKS

Prep Method: TX1005P

Date Prep: 06.21.18

LCSD Sample Id: 7657122-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	880	88	818	82	70-135	7	20	mg/kg	06.21.18 19:34	
Diesel Range Organics (DRO)	<15.0	1000	899	90	876	88	70-135	3	20	mg/kg	06.21.18 19:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		107		127		70-135	%	06.21.18 19:34
o-Terphenyl	82		101		103		70-135	%	06.21.18 19:34

Analytical Method: TPH By SW8015 Mod

Seq Number: 3054456

Parent Sample Id: 589756-001

Matrix: Soil

MS Sample Id: 589756-001 S

Prep Method: TX1005P

Date Prep: 06.21.18

MSD Sample Id: 589756-001 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	997	<15.0	0	<15.0	0	70-135	NC	20	mg/kg	06.21.18 20:36	X
Diesel Range Organics (DRO)	36.3	997	31.8	0	33.5	0	70-135	5	20	mg/kg	06.21.18 20:36	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		87		70-135	%	06.21.18 20:36
o-Terphenyl	88		89		70-135	%	06.21.18 20:36

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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



Trinity Oilfield Services & Rentals, LLC

Osage 18 Fee B Com 001H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3054711

MB Sample Id: 7657386-1-BLK

Matrix: Solid

LCS Sample Id: 7657386-1-BKS

Prep Method: SW5030B

Date Prep: 06.26.18

LCSD Sample Id: 7657386-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.100	99	0.0915	92	70-130	9	35	mg/kg	06.26.18 23:42	
Toluene	<0.00202	0.101	0.105	104	0.0952	95	70-130	10	35	mg/kg	06.26.18 23:42	
Ethylbenzene	<0.00202	0.101	0.104	103	0.0953	95	70-130	9	35	mg/kg	06.26.18 23:42	
m,p-Xylenes	<0.00403	0.202	0.217	107	0.197	99	70-130	10	35	mg/kg	06.26.18 23:42	
o-Xylene	<0.00202	0.101	0.100	99	0.0926	93	70-130	8	35	mg/kg	06.26.18 23:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		109		101		70-130	%	06.26.18 23:42
4-Bromofluorobenzene	93		101		93		70-130	%	06.26.18 23:42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3054711

Parent Sample Id: 589935-006

Matrix: Soil

MS Sample Id: 589935-006 S

Prep Method: SW5030B

Date Prep: 06.26.18

MSD Sample Id: 589935-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0793	79	0.0599	59	70-130	28	35	mg/kg	06.27.18 00:16	X
Toluene	<0.00200	0.100	0.0617	62	0.0439	43	70-130	34	35	mg/kg	06.27.18 00:16	X
Ethylbenzene	<0.00200	0.100	0.0480	48	0.0291	29	70-130	49	35	mg/kg	06.27.18 00:16	XF
m,p-Xylenes	<0.00401	0.200	0.0965	48	0.0610	30	70-130	45	35	mg/kg	06.27.18 00:16	XF
o-Xylene	<0.00200	0.100	0.0454	45	0.0286	28	70-130	45	35	mg/kg	06.27.18 00:16	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	120		97		70-130	%	06.27.18 00:16
4-Bromofluorobenzene	98		98		70-130	%	06.27.18 00:16

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

$[D] = 100 * (C-A) / B$
 $RPD = 200 * [(C-E) / (C+E)]$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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)563-1800
:rool-c

Page 1 of 1

LAB W.O # :

Field billable Hrs :

589757

* Container Type Codes

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

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

** Preservative Type Codes

A. None E. HCL I. Ice
B. HNO_3 F. MeOH J. MCAA
 H_2SO_4 G. $\text{Na}_2\text{S}_2\text{O}_3$ K. $\text{ZnAc}\&\text{NaOH}$ C
D. NaOH H. NaHSO_4 L. Asbc Acid&NaOH
O

^ Matrix Type Codes

GW	Ground Water	S	Soil/Sediment/Solid
WW	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		

REMARKS

Run BTEX if TPH $\leq 5,000$

Run BTEX if TPH $\leq$ 5,000

Run BTEX if TPH $\leq 5,000$

Run BTEX if TPH $\leq$ 5.000

Company: Trinity Oilfield Services & Rentals, LLC		Phone: (575)390-7208	
Address: P.O. Box 2587		Fax:	
City: Hobbs	State: NM	Zip: 88241	
PM/Attn: Ben J. Arguijo		Email: wade.dittrich@oxy.com & ben@trinityoilfieldservices.com	
Project ID: Osage 18 Fee B Com 0001H		PO#:	
Invoice To: Oxy - Wade Dittrich (575)390-2828		Quote #:	
Sampler Name: Tristan Pavne	Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A		

TAT Work Days = D

Need results by:

Time:

Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other

ANALYSES REQUESTED

PM/Attn: Ben J. Arguijo	Email: wade.dittrich@oxy.com & ben@trinityoilfieldservices.com
Project ID: Osage 18 Fee B Com 0001H	PO#:
Invoice To: Oxy - Wade Dittrich (575)390-2828	Quote #:
Sampler Name: Tristan Pavne Circle One Event: ☒ Daily ☐ Weekly ☐ Monthly ☐ Quarterly Semi-Annual ☐ Annual ☐ N/A	

	Cont Type*	GC	GC	GC					
	Pres Type**	I	I	I					
Example Volatiles by B260		TPH 8015M	BTEX	Chloride					

Hold Sample
 (CALL) Run Path

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field	Filtered Integrity	OK (Y/N)	Total # of containers
1	Wall 3b	6/14/18	1030	S				1
2	Wall 4d	6/14/18	1150	S				1
3	Wall 40c	6/14/18	1210	S				1
4	Wall 5b	6/15/18	0930	S				1
5								
6								
7								
8								
9								
0								

[illegible]

Reg. Program / Clean-up Std.						STATE for Certs & Regs						QA/QC Levels							
CTLs	TRRP	DW	NPDES	LPST	DryCln Other:	FL	TX	GA	NC	SC	NJ	PA	OK	1	2	3	4	CLP	
						LA	AL	NM	Other:					DoD-ELAP Other:					
					Relinquished by							Affiliation			Date				
1	Brittany Cox											Trinity			6-19-18				
2	Brittany Cox											MS			6-19-18				
3																			
4																			

AFCEE Certification	EDDs	COC & Labels	Coolers Temp °C	
AFCEE QAPP NELAC	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1. 2 2 0. 6 FR8	
Time	Received by	Affiliation	Date	Time
12:00 pm	Brittany Cox		6-19-18	12:01
12:35 pm	Xenoco	Xenoco	6/20/18	10:15

Lab Use Only	YES NO N/A		
	Non-Conformances found?	___	___
Samples intact upon arrival?	___	___	___
Received on Wet Ice?	___	___	___
Labeled with proper preservatives?	___	___	___
Received within holding time?	___	___	___
Custody seals intact?	___	___	___
VOCs rec'd w/o headspace?	___	___	___
Proper containers used?	___	___	___
pH verified-acceptable, excl VOCs?	___	___	___
Received on time to meet HTs?	___	___	___

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

C.O.C. Serial #

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Execution 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 and conditions unless previously agreed in writing. 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 property of Xenco until invoices for such data are paid in full.

Revision Date: Nov 12, 2009

Revision Date: Nov 12, 2009

Tracking #: 660639171390

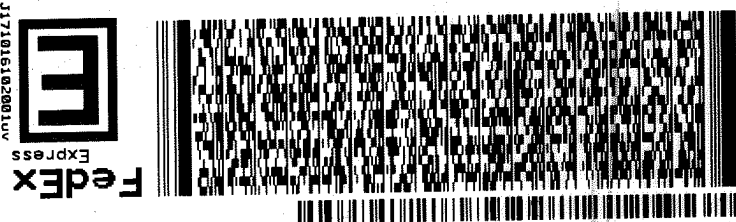
Part # 156146-434 RPD 09/16

41 MAF 79701 TX-US LBB

TRK# 6606 3917 1390

MED - 20 JUN 10:30A

PRIORITY OVERNIGHT



DEPT: REF: INV: (432) 563-1800

MIDLAND TX 79701

TO XENCO LABORATORIES

1211 W FLORIDA AVE

XENCO LABORATORIES

HOBBBS, NM 88240

UNITED STATES US

MAIL SERVICES ETC, LLC

4008 N GRIMES

ORIGIN ID: H08A (675) 392-7550

SHIP DATE: 19JUN18

ACTWGT: 21.00 LB MAN

CAD: 0909328/CREF3111

DIMS: 26x14x14 IN

BILL RECIPIENT

546C2/530F/53C1



Client: Trinity Oilfield Services & Rentals, LLC

Date/ Time Received: 06/20/2018 10:15:00 AM

Work Order #: 589757

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#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:

Katie Lowe

Date: 06/20/2018

Checklist reviewed by:

Brandi Ritcherson

Date: 06/20/2018

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 203874

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 203874
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Historical document upload. Closure approved.	5/2/2023