

SITE INFORMATION

Report Type: Closure Report NAPP2101551338

General Site Information:

Site:	RHNU Tank Battery 12					
Company:	EOG Resources					
Section, Township and Range	Unit N	Sec. 12	T 25S	R 33E		
Lease Number:						
County:	Lea County					
GPS:	32.13948			-103.528656		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From GPS Point: 32.210345°, -103.534509°. Follow lease road south for 6.14 miles. Turn left onto lease road, RHNU is location on the left.					

Release Data:

Date Released:	12/28/2020
Type Release:	Oil
Source of Contamination:	Flare
Fluid Released:	2 bbl Oil
Fluids Recovered:	0 bbl Oil

Official Communication:

Name:	Todd Wells		Clair Gonzales
Company:	EOG Resources		Tetra Tech
Address:	5509 Champions Dr.		901 W. Wall St.
			Ste 100
City:	Midland, Texas, 79706		Midland, Texas, 79701
Phone number:	(432) 686-3613		(432) 682-4559
Fax:			
Email:	Todd_Wells@eogresources.com		clair.gonzales@tetrattech.com

Site Characterization

Depth to Groundwater:	185' Below Surface
Karst Potential:	Low

Recommended Remedial Action Levels (RRALs)

Benzene	Total BTEX	TPH (GRO+DRO)	TPH (GRO+DRO+MRO)	Chlorides
10 mg/kg	50 mg/kg	100 mg/kg	100 mg/kg	600 mg/kg



July 29, 2021

Environmental Specialist
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Closure Report
EOG Resources
RHNU Tank Battery 12
Unit N, Section 12, Township 25 South, Range 33 East,
Lea County, New Mexico.
Incident ID: NAPP2101551338**

Oil Conservation Division:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess and remediate a release that occurred at the EOG RHNU Tank Battery 12 (Site). The Site is located in the Public Land Survey System (PLSS) Unit N, Section 12, Township 25 South, Range 33 East, Lea County, New Mexico. The site coordinates are 32.139480°, -103.528656°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the release was discovered on December 28, 2020 and was caused by a leak at the flare stack. Approximately 2 barrels (bbls) of crude oil were released. Of which, 0 bbls of crude oil was recovered. The release was subsequently assigned the Incident ID NAPP2101551338. The C-141 forms are included in Appendix A.

Site Characterization

A site characterization was performed for the site and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances and the site is in a low karst potential area. The nearest well is listed New Mexico Office of the State Engineer (NMOSE) Groundwater Database, in Section 13, approximately 0.19 miles from the site, and has a reported depth to groundwater of 185' below ground surface (bgs). Additionally, a well is listed in the USGS National Water Information Database website in Section 33 of Township 24S and Range 33E, approximately 3.51 miles Northeast of the Site, and has a reported depth to groundwater of 94.35' bgs. The site characterization data is included in Appendix B.

Tetra Tech

901 West Wall Street, Suite 100, Midland, TX 79701

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com

**TETRA TECH**

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the site characterization, the proposed RRAL for TPH is 100 mg/kg (GRO+DRO+MRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.

Soil Assessments

EOG conducted initial remediation efforts at the Site by applying a 6" scrape to the impacted area. On January 6, 2021, Tetra Tech personnel were onsite to conduct a soil investigation and sample the excavated area. A total of ten (10) bottom hole samples (BH-1 through BH-10) were collected throughout the excavation area. Additionally, six (6) sidewall samples (SW-1 through SW-6) were collected. All samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The sample locations are shown on Figure 3.

Referring to Table 1, the sample locations (BH-5, BH-8, BH-9, and BH-10) exceeded the Site RRALs for chlorides, with concentrations ranging from 1,090 mg/kg to 1,480 mg/kg, at depths ranging surface to 0.5' bgs. The sample location (BH-5) also exceeded the Site RRAL for TPH, with a concentration of 2,540 mg/kg, at depths ranging from surface to 0.5' bgs. The remainder of the sample locations (BH-1 through BH-4, BH-6 through BH-7, and SW-1 through SW-6) were below the Site RRALs.

Remediation Activities

Based on the results of the soil assessment following initial remediation efforts, Tetra Tech personnel were onsite on April 27, 2021 and May 6, 2021 to supervise the remediation activities as well as to collect additional confirmation samples. The impacted areas were excavated to a total depth ranging from 0.5' - 3.5' bgs, as shown on Figure 4 and Table 2.

Confirmation bottom holes and sidewall samples were collected every 200 square feet. Additionally, a total of two (2) additional bottom holes (BH-11 through BH-12) and four (4) additional sidewalls (SW-7 through SW-10) were collected due to the extended excavation dimensions and to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 modified, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are also summarized in Table 2. All final confirmation samples did not exceed the RRALs. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The excavation depths and sample locations are shown in Figure 4.

**TETRA TECH**

Approximately 310 cubic yards of material were excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

Conclusion

Based on the laboratory results and remediation activities performed, EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

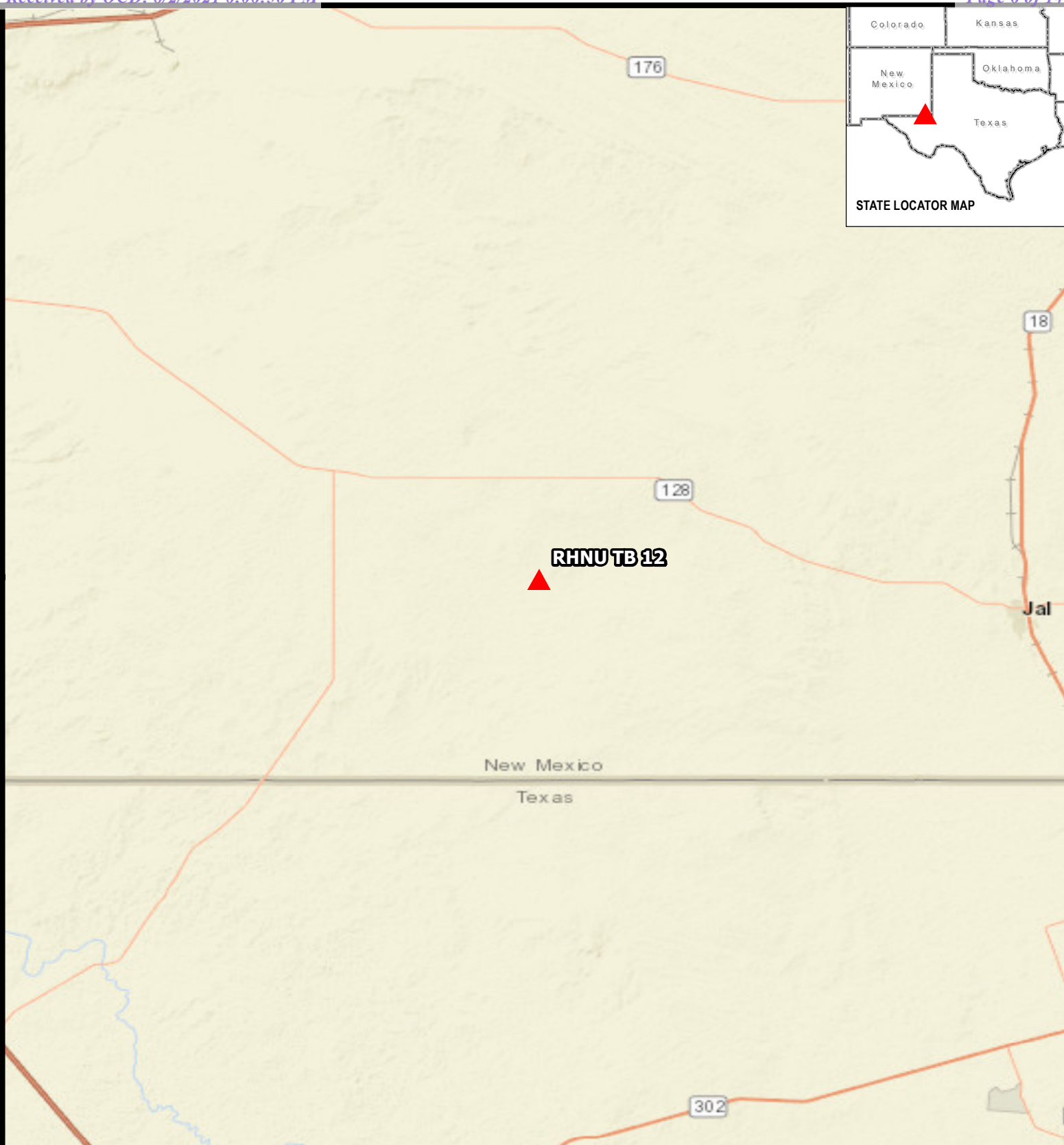
Devin Brown
Biologist

Brittany Long
Project Manager

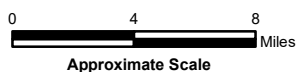
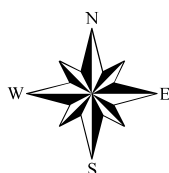
Clair Gonzales, P.G.
Senior Project Manager



Figures



▲ SITE LOCATION



OVERVIEW MAP
RED HILLS NORTH UNIT TB #12
Property located at coordinates 32.139480°, -103.528656°
LEA COUNTY, NEW MEXICO



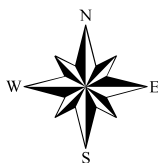
Project #:
212C-MD-02398

FIGURE
1

Service Layer Credits: ESRI Basemap - Streets, 2021.



▲ SITE LOCATION



0 500 1,000 2,000

Approximate Scale in Feet

Service Layer Credits: USGS, The National Map,
Topo Base, 2021.

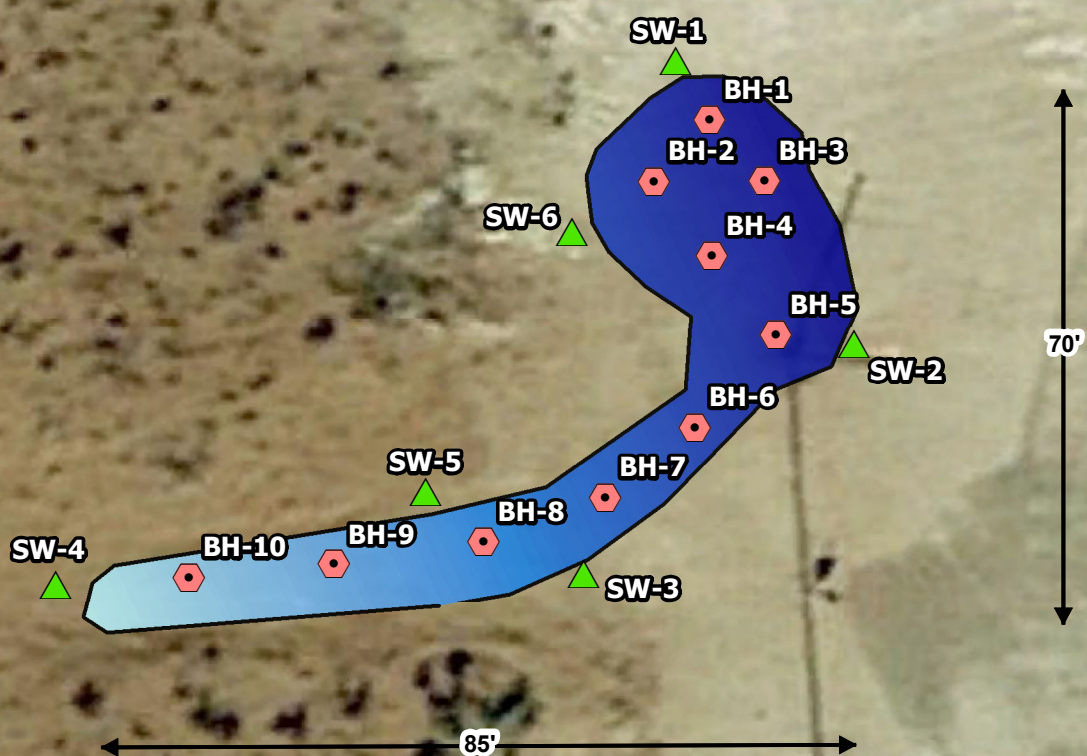
TOPOGRAPHIC MAP
RED HILLS NORTH UNIT TB #12
Property located at coordinates 32.139480°, -103.528656°
LEA COUNTY, NEW MEXICO



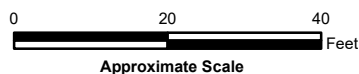
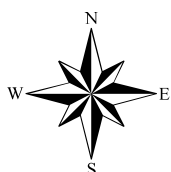
Project #:
212C-MD-02398

FIGURE
2

SAMPLE DESIGNATION	LATITUDE	LONGITUDE
BH-1	32.139544°	-103.5286811°
BH-2	32.139522°	-103.528701°
BH-3	32.1395221°	-103.5286614°
BH-4	32.1394955°	-103.5286801°
BH-5	32.1394672°	-103.5286574°
BH-6	32.1394342°	-103.5286863°
BH-7	32.1394091°	-103.5287183°
BH-8	32.1393932°	-103.5287618°
BH-9	32.1393852°	-103.5288153°
BH-10	32.1393805°	-103.528867°
SW-1	32.1395651°	-103.5286931°
SW-2	32.1394642°	-103.5286295°
SW-3	32.1393819°	-103.5287261°
SW-4	32.139378°	-103.5289146°
SW-5	32.139411°	-103.5287825°
SW-6	32.1395038°	-103.5287302°



- HORIZONTAL SAMPLE LOCATIONS
- AUGERHOLE SAMPLE LOCATIONS
- AFFECTED AREA EXTENT



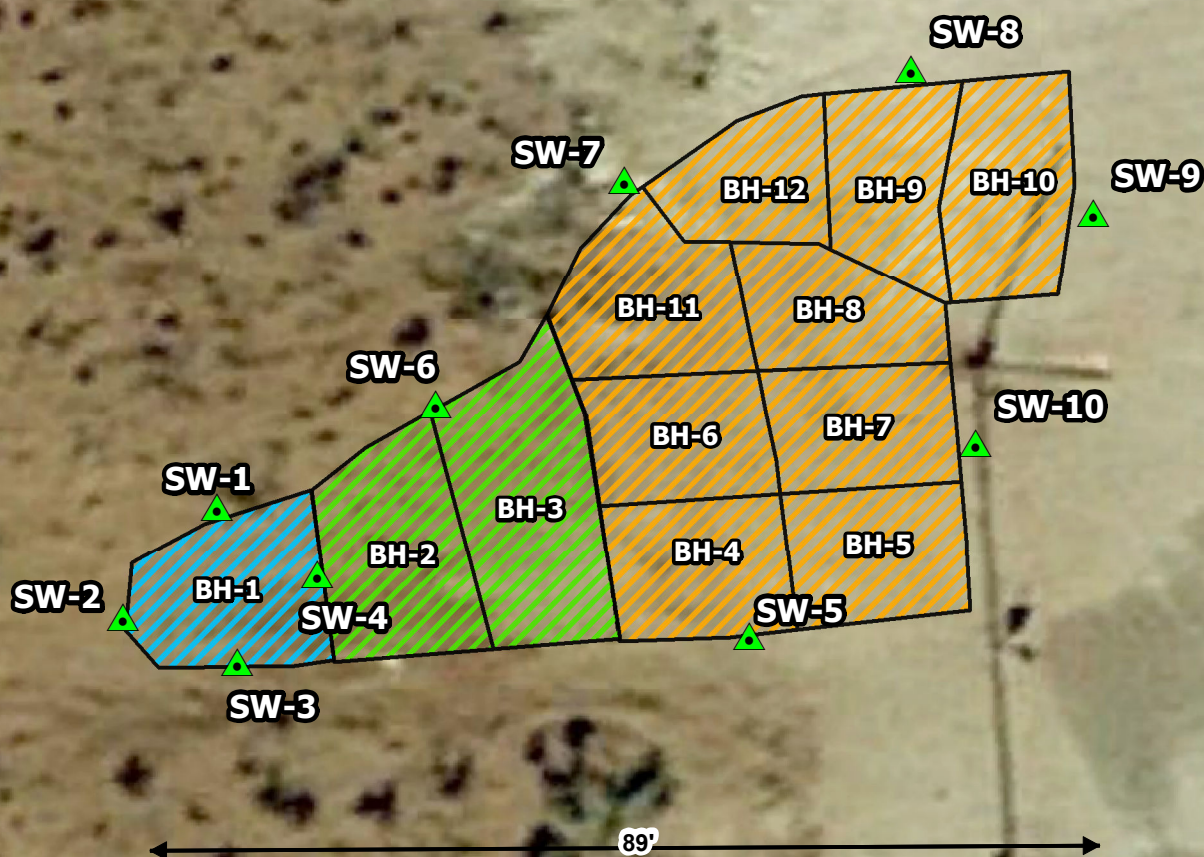
Service Layer Credits: Google Maps.
ESRI Basemap - Imagery, 2020.

SPILL ASSESSMENT MAP
RED HILLS NORTH UNIT TB #12
Property located at coordinates 32.139480°, -103.528656°
LEA COUNTY, NEW MEXICO

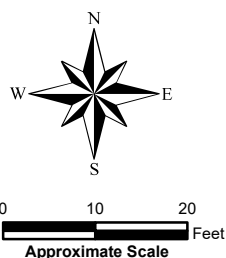


Project #:
212C-MD-02398

FIGURE
3



- SIDEWALL SAMPLE LOCATIONS
- BOTTOMHOLE SAMPLE LOCATIONS
- 1' EXCAVATED AREA DEPTH
- 2' EXCAVATED AREA DEPTH
- 3' EXCAVATED AREA DEPTH



EXCAVATION AREA & DEPTH MAP
 RED HILLS NORTH UNIT TB #12
 Property located at coordinates 32.139480°, -103.528656°
 LEA COUNTY, NEW MEXICO



Project #:
 212C-MD-02398

FIGURE
 4



Tables

Table 1
EOG Resources
RHNU TB 12
Lea County, New Mexico

Sample ID	Sample Date	Excavtion Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
BH-1	1/6/2021	0.5'	X	-	<49.8	53.1	<49.8	53.1	<0.00202	0.00337	0.0027	0.019	0.0251	<9.94
BH-2	1/6/2021	0.5'	X	-	<49.8	50.1	<49.8	50.1	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	10.3
BH-3	1/6/2021	0.5'	X	-	<50.1	59	<50.1	59	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	51.5
BH-4	1/6/2021	0.5'	X	-	<50.3	<50.3	<50.3	<50.3	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	32.9
BH-5	1/6/2021	0.5'	-	X	<250	2,260	279	2,540	<0.00500	0.0715	0.0472	0.359	0.478	1,480
BH-6	1/6/2021	0.5'	X	-	<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	45.8
BH-7	1/6/2021	0.5'	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	90.4
BH-8	1/6/2021	0.5'	-	X	<50.2	<50.2	<50.2	<50.2	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	1,180
BH-9	1/6/2021	0.5'	-	X	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	1,090
BH-10	1/6/2021	0.5'	-	X	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	1,200
SW-1	1/6/2021	-	X	-	<50.1	<50.1	<50.1	<50.1	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	13.6
SW-2	1/6/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	19.4
SW-3	1/6/2021	-	X	-	<50.2	<50.2	<50.2	<50.2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<9.96
SW-4	1/6/2021	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0
SW-5	1/6/2021	-	X	-	<50.3	<50.3	<50.3	<50.3	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	14.7
SW-6	1/6/2021	-	-	X	<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	16.2

(-) Not Analyzed

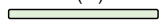
 Excavated

Table 2
EOG Resources
RHNU TB 12
Lea County, New Mexico

Sample ID	Sample Date	Excavtion Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
BH-1	4/27/2021	1	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	423
BH-2	4/27/2021	2	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	419
BH-3	4/27/2021	2	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	431
BH-4	4/27/2021	3	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	36.3
BH-5	4/27/2021	3	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	52.1
BH-6	4/27/2021	3.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	39.7
BH-7	4/27/2021	3.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	133
BH-8	4/27/2021	3.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	46.6
BH-9	4/27/2021	3.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	91.7
BH-10	4/27/2021	3.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	155
BH-11	5/6/2021	3.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	21.6
BH-12	5/6/2021	3.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	20.3
SW-1	4/27/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	56.6
SW-2	4/27/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	63
SW-3	4/27/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	84.1
SW-4	4/27/2021	-	X	-	<49.9	75.5	<49.9	75.5	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	64.3
SW-5	4/27/2021	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	155
SW-6	4/27/2021	-	-	X	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	683
	5/6/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	23.8

Table 2
EOG Resources
RHNU TB 12
Lea County, New Mexico

Sample ID	Sample Date	Excavtion Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
SW-7	4/27/2021	-	-	X	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	2,810
	5/6/2021	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	26.4
SW-8	4/27/2021	-	-	X	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	778
	5/6/2021	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	18.9
SW-9	4/27/2021	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	470
SW-10	4/27/2021	-	-	X	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,160
	5/6/2021	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	22.3

(-) Not Analyzed
Excavated



Photographic Documentation

EOG Resources
RHNU Tank Battery 12
Lea County, New Mexico



View of Remediation Activities – View South



View of Remediation Activities – View South

EOG Resources
RHNU Tank Battery 12
Lea County, New Mexico



☉ 261°W (T) LAT: 32.139476 LON: -103.528698 ±16ft ▲ 3383ft



View of Remediation Activities – View West

☉ 306°NW (T) LAT: 32.139357 LON: -103.528735 ±16ft ▲ 3381ft



View of Remediation Activities– View Northwest

EOG Resources
RHNU Tank Battery 12
Lea County, New Mexico



View of Remediation Activities – View East



Appendix A

C-141 Document

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAPP2101551338
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party EOG Resources	OGRID 7377
Contact Name Todd Wells	Contact Telephone (432) 686-3613
Contact email Todd_Wells@eogresources.com	Incident # (assigned by OCD)
Contact mailing address 5509 Champions Drive Midland, TX 79706	

Location of Release Source

Latitude 32.139480° Longitude -103.528656°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name RHNU Tank Battery 12	Site Type Tank Battery
Date Release Discovered 12/28/20	API# (if applicable)

Unit Letter	Section	Township	Range	County
N	12	25S	33E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 2	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: A malfunction with the circulation pump caused the lines to fill with oil sending 2 bbls of oil through the flare and causing a fire on the pad around the flare and slightly off the location adjacent to the flare. Approximately 2 bbls of crude oil was released and 0 bbls recovered.

Incident ID	NAPP2101551338
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The oil release resulted in a fire around the flare.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? E-mail notification to District 1 Spills Inbox on 12/29/20.	

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: <u>Todd Wells</u> Title: <u>Environmental Specialist</u> Signature: <u>Todd Wells</u> Date: <u>1-15-21</u> email: <u>Todd_Wells@eogresources.com</u> Telephone: <u>(432) 686-3613</u>
<u>OCD Only</u> Received by: <u>Ramona Marcus</u> Date: <u>1/22/2021</u>

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

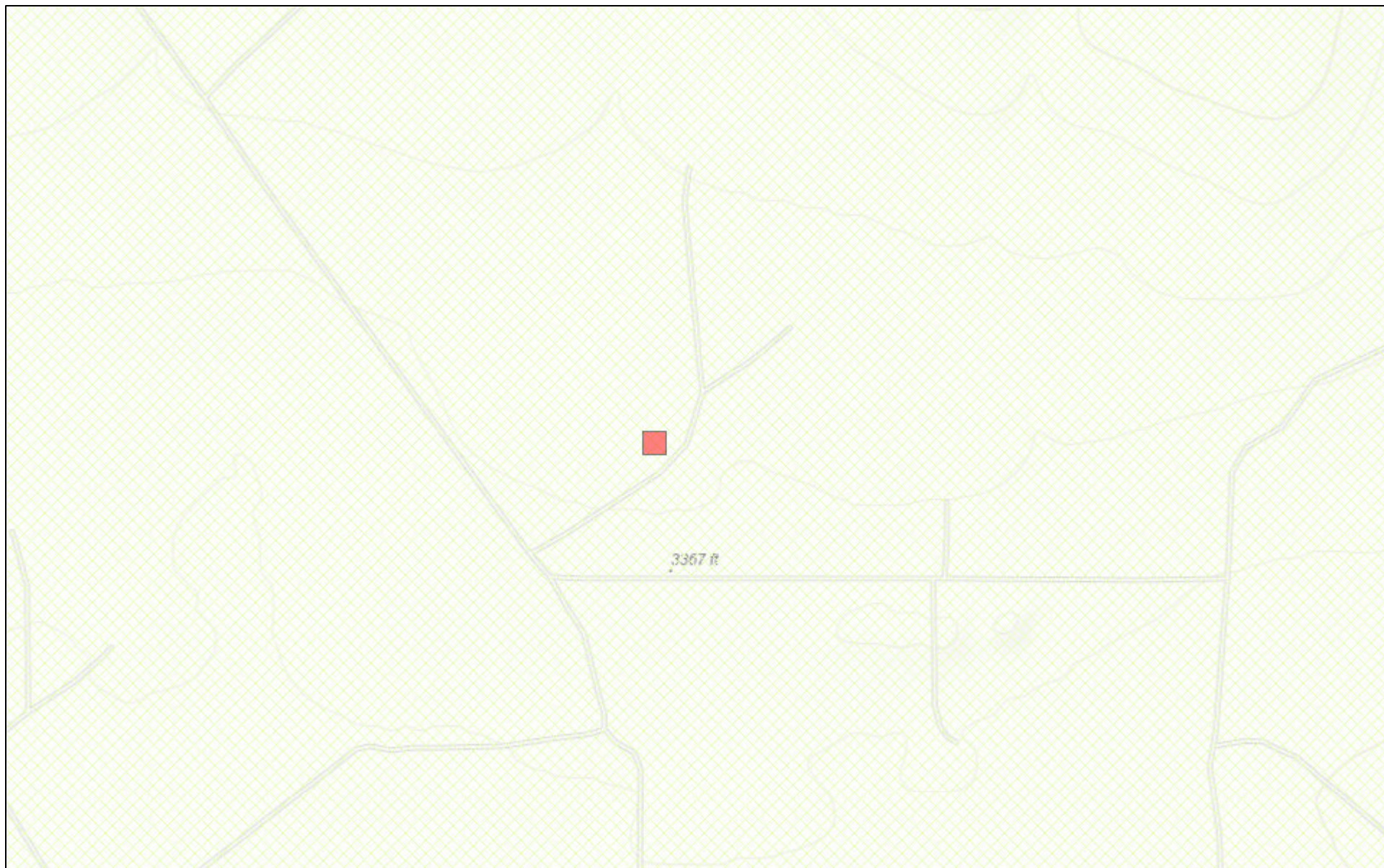
Printed Name: _____ Title: _____



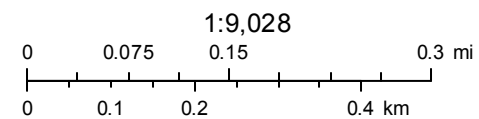
Appendix B

Site Characterization Documents

New Mexico NFHL Data



January 13, 2021



FEMA
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,



[USGS Home](#)
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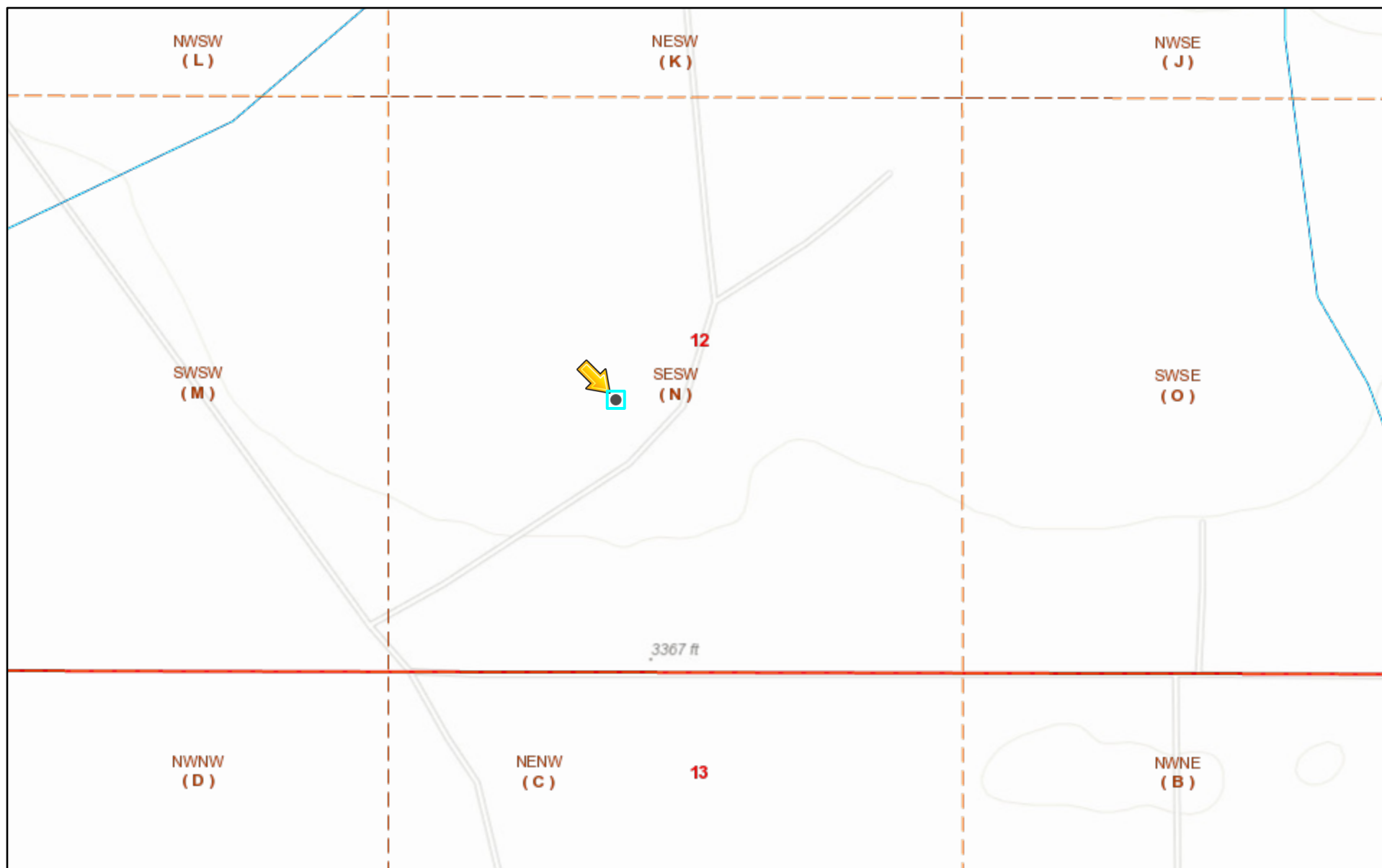
National Water Information System: Mapper

[Help](#) [Info](#)



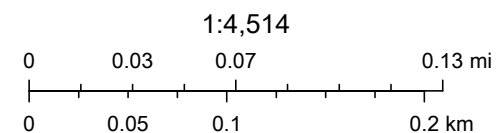
Site Information

Water Bodies - RHNU TB 12



1/13/2021, 1:47:46 PM

- Override 1
- PLSS Second Division
- OSE Streams
- OCD District Offices
- OSE Water-bodies
- PLSS First Division
- PLJV Probable Playas



OCD, Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE,

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	02373 S	1	2	1	13	25S	33E	638721	3556549*

Driller License: 421**Driller Company:** GLENN'S WATER WELL SERVICE**Driller Name:****Drill Start Date:** 09/08/1993**Drill Finish Date:** 09/08/1993**Plug Date:****Log File Date:****PCW Rev Date:** 02/09/1996**Source:** Shallow**Pump Type:** SUBMER**Pipe Discharge Size:** 2**Estimated Yield:** 60 GPM**Casing Size:** 6.63**Depth Well:** 625 feet**Depth Water:** 185 feet**Meter Number:** 581**Meter Make:** WATERSPECIAL**Meter Serial Number:** 9549683**Meter Multiplier:** 100.0000**Number of Dials:** 6**Meter Type:** Diversion**Unit of Measure:** Gallons**Return Flow Percent:****Usage Multiplier:****Reading Frequency:**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
03/31/1999	1999	2206	A	ms		0
06/30/1999	1999	2350	A	ms		0.186
09/30/1999	1999	4567	A	ms		2.858
01/06/2000	1999	6110	A	ms		1.989
05/01/2000	2000	9350	A	mb		0
06/30/2000	2000	10252	A	mb		0.277
10/13/2000	2000	16915	A	RPT		2.045
01/17/2001	2000	33917	A	RPT		5.218
05/17/2001	2001	39208	A	RPT		1.624
06/30/2001	2001	39212	A	RPT		0.001
09/30/2001	2001	48868	A	RPT		2.963
01/03/2002	2002	56680	A	RPT		2.397
06/30/2002	2002	70870	A	RPT		4.355
12/31/2002	2002	112683	A	RPT		12.832
03/31/2003	2003	134871	A	RPT		6.809
06/30/2003	2003	135029	A	RPT		0.048
09/30/2003	2003	139662	A	ab		1.422
12/31/2003	2003	145345	A	ab		1.744
04/05/2004	2004	162284	A	RPT		5.198
10/07/2004	2004	172774	A	tw		3.219
01/01/2005	2004	180237	A	RPT		2.290
04/01/2005	2005	183300	A	RPT		0.940
07/01/2005	2005	183613	A	RPT		0.096
10/10/2005	2005	185173	A	RPT		0.479
01/01/2006	2005	185386	A	RPT		0.065

03/31/2006	2006	186880	A	RPT	0.458
06/30/2006	2006	196667	A	tw	3.004
12/31/2006	2006	205842	A	tw	2.816
04/03/2007	2007	211071	A	RPT	1.605
07/01/2007	2007	211071	A	RPT	0
10/01/2007	2007	211071	A	RPT	0
12/03/2007	2007	211071	A	RPT	0
03/30/2008	2008	211071	A	RPT	0
06/30/2008	2008	211071	A	RPT	0
09/30/2008	2008	211071	A	RPT	0
12/30/2008	2008	211071	A	RPT	0
03/31/2010	2010	109594	R	RPT Meter Rollover	275.747
06/30/2010	2010	156195	A	tw	14.301
09/30/2010	2010	199335	A	RPT	13.239
12/31/2010	2010	231813	A	RPT	9.967
04/01/2011	2011	263630	A	RPT	9.764

x

**YTD Meter Amounts:

Year

Amount

1999

5.033

2000

7.540

2001

4.588

2002

19.584

2003

10.023

2004

10.707

2005

1.580

2006

6.278

2007

1.605

2008

0

2010

313.254

2011

9.764

x

*UTM location was derived from PLSS - see Help

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

7/17/21 1:49 PM

POINT OF DIVERSION SUMMARY



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National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:

Groundwater

Geographic Area:

New Mexico

GO

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News Bulletins

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Groundwater levels for New Mexico

Click to hide
state-specific text

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320934103253901

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320934103253901 25S.34E.01.13424

Lea County, New Mexico
Latitude 32°09'34", Longitude 103°25'39" NAD27
Land-surface elevation 3,384 feet above NAVD88
The depth of the well is 300 feet below land surface.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1953-04-15		D	72019	231.00				U		U	A
1968-06-12		D	72019	222.15			S	U		U	A
1970-12-08		D	72019	218.19				U		U	A
1981-05-19		D	72019	225.73				U		U	A
1986-03-12		D	72019	224.42				U		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	72019	Depth to water level, feet below land surface
Status		The reported water-level measurement represents a static level
Status	S	Water level was affected at the time of the measurement by pumping at a nearby site that taps the same aquifer
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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National Water Information System: Web Interface

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Data Category:
Groundwater

Geographic Area:
New Mexico

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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 320918103254301

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320918103254301 25S.34E.01.143

Lea County, New Mexico
Latitude 32°09'18", Longitude 103°25'43" NAD27
Land-surface elevation 3,396 feet above NAVD88

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1953-04-15		D	72019	231.90				U		U	A
1968-06-12		D	72019	223.05				U		U	A
1970-12-08		D	72019	215.36				U		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	72019	Depth to water level, feet below land surface
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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News

Karst Potential

Red Hills North Unit Tank Battery 12

Legend

- High
- Low
- Medium
- RHNU TB 12

RHNU TB 12

128



Water Well Data
Average Depth to Groundwater (ft)
RHNU Tank Battery 12
Lea County, New Mexico

24 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
			290		

24 South			33 East		
6	5	4	3	2	1
7	8	9	10	20	11
			22		12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	70		36
			93.2		

24 South			34 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
	290				

25 South			33 East		
6	5	4	3	172	2
	118				1
7	8	9	10	11	12
				140	200
18	17	16	15	14	13
19	20	21	22	23	24
	200	120			185
30	29	28	27	26	25
			125	110	
31	32	33	34	35	36
190					

25 South			34 East		
6	5	4	3	2	1
					260
7	8	9	10	11	12
18	17	16	15	14	13
			135		
19	20	21	22	23	24
					300
30	29	129	28	27	26
	50				25
31	32	33	34	35	36

26 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	333	22	23
		180			24
30	29	28	27	26	25
31	32	33	34	35	36
295					

26 South			33 East		
6	5	4	3	180	2
					1
7	8	9	106	10	11
			124		12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
			80		
31	32	33	34	35	36

26 South			34 East		
6	5	4	3	2	1
130					
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
 Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

123 Tetra Tech installed temporary wells and field water level

143 NMOCD Groundwater map well location



Appendix C

Laboratory Reports

Certificate of Analysis Summary 683921



Tetra Tech- Midland, Midland, TX

Project Name: RHNU TB 12

Project Id: 212C-MD-02398
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 01.08.2021 08:25
Report Date: 01.11.2021 16:39
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	683921-001	683921-002	683921-003	683921-004	683921-005	683921-006
	<i>Field Id:</i>	BH-1 (0.5')	BH-2 (0.5')	BH-3 (0.5')	BH-4 (0.5')	BH-5 (0.5')	BH-6 (0.5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	01.08.2021 11:46	01.08.2021 11:46	01.08.2021 11:46	01.08.2021 11:46	01.08.2021 11:46	01.08.2021 11:46
	<i>Analyzed:</i>	01.08.2021 20:31	01.08.2021 21:38	01.08.2021 22:01	01.08.2021 22:23	01.08.2021 21:16	01.08.2021 20:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.0100 0.0100	<0.0100 0.0100	<0.00500 0.00500	<0.00500 0.00500	<0.00200 0.00200
Toluene		0.00337 0.00202	<0.0100 0.0100	<0.0100 0.0100	<0.00500 0.00500	0.0715 0.0200	<0.00200 0.00200
Ethylbenzene		0.00270 0.00202	<0.0100 0.0100	<0.0100 0.0100	<0.00500 0.00500	0.0472 0.0200	<0.00200 0.00200
m,p-Xylenes		0.0116 0.00403	<0.0200 0.0200	<0.0200 0.0200	<0.0100 0.0100	0.258 0.0400	<0.00400 0.00400
o-Xylene		0.00741 0.00202	<0.0100 0.0100	<0.0100 0.0100	<0.00500 0.00500	0.101 0.0200	<0.00200 0.00200
Total Xylenes		0.0190 0.00202	<0.0100 0.0100	<0.0100 0.0100	<0.00500 0.00500	0.359 0.0200	<0.00200 0.00200
Total BTEX		0.0251 0.00202	<0.0100 0.0100	<0.0100 0.0100	<0.00500 0.00500	0.478 0.00500	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45
	<i>Analyzed:</i>	01.09.2021 02:19	01.09.2021 02:36	01.09.2021 02:42	01.09.2021 02:48	01.09.2021 02:54	01.09.2021 03:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<9.94 9.94	10.3 9.94	51.5 9.90	32.9 10.1	1480 49.7	45.8 10.1
TPH By SW8015 Mod	<i>Extracted:</i>	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00
	<i>Analyzed:</i>	01.08.2021 17:33	01.08.2021 18:33	01.08.2021 18:53	01.08.2021 19:13	01.08.2021 19:33	01.08.2021 19:53
	<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)		<49.8 49.8	<49.8 49.8	<50.1 50.1	<50.3 50.3	<250 250	<50.1 50.1
Diesel Range Organics (DRO)		53.1 49.8	50.1 49.8	59.0 50.1	<50.3 50.3	2260 250	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.8 49.8	<50.1 50.1	<50.3 50.3	279 250	<50.1 50.1
Total TPH		53.1 49.8	50.1 49.8	59.0 50.1	<50.3 50.3	2540 250	<50.1 50.1

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 683921

Tetra Tech- Midland, Midland, TX

Project Name: RHNU TB 12

Project Id: 212C-MD-02398
 Contact: Mike Carmona
 Project Location: Lea County, New Mexico

Date Received in Lab: Fri 01.08.2021 08:25
 Report Date: 01.11.2021 16:39
 Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	683921-007	683921-008	683921-009	683921-010	683921-011	683921-012
	<i>Field Id:</i>	BH-7 (0.5')	BH-8 (0.5')	BH-9 (0.5')	BH-10 (0.5')	SW-1 (0.5')	SW-2 (0.5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	01.08.2021 13:48	01.08.2021 13:48	01.08.2021 13:48	01.08.2021 13:48	01.08.2021 13:48	01.08.2021 13:48
	<i>Analyzed:</i>	01.09.2021 01:10	01.09.2021 02:28	01.09.2021 02:50	01.09.2021 03:12	01.09.2021 03:35	01.09.2021 03:57
	<i>Units/RL:</i>	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	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00402 0.00402	<0.00400 0.00400	<0.00399 0.00399	<0.00402 0.00402	<0.00403 0.00403
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45
	<i>Analyzed:</i>	01.09.2021 03:24	01.09.2021 03:30	01.09.2021 03:36	01.09.2021 03:42	01.09.2021 03:48	01.09.2021 04:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		90.4 9.90	1180 9.94	1090 9.92	1200 10.1	13.6 9.90	19.4 10.0
TPH By SW8015 Mod	<i>Extracted:</i>	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00
	<i>Analyzed:</i>	01.08.2021 20:13	01.08.2021 20:33	01.08.2021 20:53	01.08.2021 21:13	01.08.2021 21:53	01.08.2021 22:13
	<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)		<50.0 50.0	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0
Total TPH		<50.0 50.0	<50.2 50.2	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Certificate of Analysis Summary 683921

Tetra Tech- Midland, Midland, TX

Project Name: RHNU TB 12

Project Id: 212C-MD-02398
 Contact: Mike Carmona
 Project Location: Lea County, New Mexico

Date Received in Lab: Fri 01.08.2021 08:25
 Report Date: 01.11.2021 16:39
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	683921-013	683921-014	683921-015	683921-016		
	Field Id:	SW-3 (0.5')	SW-4 (0.5')	SW-5 (0.5')	SW-6 (0.5')		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00	01.06.2021 00:00		
BTEX by EPA 8021B	Extracted:	01.08.2021 13:48	01.08.2021 13:48	01.08.2021 13:48	01.08.2021 13:48		
	Analyzed:	01.09.2021 04:20	01.09.2021 04:42	01.09.2021 05:04	01.09.2021 05:27		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
m,p-Xylenes		<0.00399 0.00399	<0.00399 0.00399	<0.00404 0.00404	<0.00403 0.00403		
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Inorganic Anions by EPA 300/300.1	Extracted:	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45	01.08.2021 15:45		
	Analyzed:	01.09.2021 04:12	01.09.2021 04:36	01.09.2021 04:42	01.09.2021 04:48		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		<9.96 9.96	<10.0 10.0	14.7 10.1	16.2 10.0		
TPH By SW8015 Mod	Extracted:	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00	01.08.2021 14:00		
	Analyzed:	01.08.2021 22:33	01.08.2021 22:53	01.08.2021 23:13	01.08.2021 23:33		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1		
Diesel Range Organics (DRO)		<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1		
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1		
Total TPH		<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1		

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Analytical Report 683921

for

Tetra Tech- Midland

Project Manager: Mike Carmona

RHNU TB 12

212C-MD-02398

01.11.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.11.2021

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **683921**

RHNU TB 12

Project Address: Lea County, New Mexico

Mike Carmona:

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 Eurofins Xenco, LLC Report Number(s) 683921. 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 Eurofins Xenco, LLC. 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. 683921 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 Eurofins Xenco, LLC 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 "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 683921****Tetra Tech- Midland, Midland, TX**

RHNU TB 12

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 (0.5')	S	01.06.2021 00:00		683921-001
BH-2 (0.5')	S	01.06.2021 00:00		683921-002
BH-3 (0.5')	S	01.06.2021 00:00		683921-003
BH-4 (0.5')	S	01.06.2021 00:00		683921-004
BH-5 (0.5')	S	01.06.2021 00:00		683921-005
BH-6 (0.5')	S	01.06.2021 00:00		683921-006
BH-7 (0.5')	S	01.06.2021 00:00		683921-007
BH-8 (0.5')	S	01.06.2021 00:00		683921-008
BH-9 (0.5')	S	01.06.2021 00:00		683921-009
BH-10 (0.5')	S	01.06.2021 00:00		683921-010
SW-1 (0.5')	S	01.06.2021 00:00		683921-011
SW-2 (0.5')	S	01.06.2021 00:00		683921-012
SW-3 (0.5')	S	01.06.2021 00:00		683921-013
SW-4 (0.5')	S	01.06.2021 00:00		683921-014
SW-5 (0.5')	S	01.06.2021 00:00		683921-015
SW-6 (0.5')	S	01.06.2021 00:00		683921-016



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: RHNU TB 12

Project ID: 212C-MD-02398
Work Order Number(s): 683921

Report Date: 01.11.2021
Date Received: 01.08.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-1 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-001

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	01.09.2021 02:19	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.08.2021 17:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	53.1	49.8	mg/kg	01.08.2021 17:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.08.2021 17:33	U	1
Total TPH	PHC635	53.1	49.8	mg/kg	01.08.2021 17:33		1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number

% Recovery

Units

Limits

Analysis Date

Flag

111-85-3

121

%

70-135

01.08.2021 17:33

84-15-1

98

%

70-135

01.08.2021 17:33



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-1 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-001

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 11:46

% Moisture:

Seq Number: 3147339

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.08.2021 20:31	U	1
Toluene	108-88-3	0.00337	0.00202	mg/kg	01.08.2021 20:31		1
Ethylbenzene	100-41-4	0.00270	0.00202	mg/kg	01.08.2021 20:31		1
m,p-Xylenes	179601-23-1	0.0116	0.00403	mg/kg	01.08.2021 20:31		1
o-Xylene	95-47-6	0.00741	0.00202	mg/kg	01.08.2021 20:31		1
Total Xylenes	1330-20-7	0.0190	0.00202	mg/kg	01.08.2021 20:31		1
Total BTEX		0.0251	0.00202	mg/kg	01.08.2021 20:31		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.08.2021 20:31		
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.08.2021 20:31		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-2 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-002

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.3	9.94	mg/kg	01.09.2021 02:36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.08.2021 18:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	50.1	49.8	mg/kg	01.08.2021 18:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.08.2021 18:33	U	1
Total TPH	PHC635	50.1	49.8	mg/kg	01.08.2021 18:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	01.08.2021 18:33	
o-Terphenyl	84-15-1	122	%	70-135	01.08.2021 18:33	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-2 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-002

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 11:46

% Moisture:

Seq Number: 3147339

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0100	0.0100	mg/kg	01.08.2021 21:38	U	1
Toluene	108-88-3	<0.0100	0.0100	mg/kg	01.08.2021 21:38	U	1
Ethylbenzene	100-41-4	<0.0100	0.0100	mg/kg	01.08.2021 21:38	U	1
m,p-Xylenes	179601-23-1	<0.0200	0.0200	mg/kg	01.08.2021 21:38	U	1
o-Xylene	95-47-6	<0.0100	0.0100	mg/kg	01.08.2021 21:38	U	1
Total Xylenes	1330-20-7	<0.0100	0.0100	mg/kg	01.08.2021 21:38	U	1
Total BTEX		<0.0100	0.0100	mg/kg	01.08.2021 21:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.08.2021 21:38		
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.08.2021 21:38		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-3 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-003

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.5	9.90	mg/kg	01.09.2021 02:42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.08.2021 18:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	59.0	50.1	mg/kg	01.08.2021 18:53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.08.2021 18:53	U	1
Total TPH	PHC635	59.0	50.1	mg/kg	01.08.2021 18:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	01.08.2021 18:53	
o-Terphenyl	84-15-1	106	%	70-135	01.08.2021 18:53	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-3 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-003

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 11:46

% Moisture:

Seq Number: 3147339

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0100	0.0100	mg/kg	01.08.2021 22:01	U	1
Toluene	108-88-3	<0.0100	0.0100	mg/kg	01.08.2021 22:01	U	1
Ethylbenzene	100-41-4	<0.0100	0.0100	mg/kg	01.08.2021 22:01	U	1
m,p-Xylenes	179601-23-1	<0.0200	0.0200	mg/kg	01.08.2021 22:01	U	1
o-Xylene	95-47-6	<0.0100	0.0100	mg/kg	01.08.2021 22:01	U	1
Total Xylenes	1330-20-7	<0.0100	0.0100	mg/kg	01.08.2021 22:01	U	1
Total BTEX		<0.0100	0.0100	mg/kg	01.08.2021 22:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.08.2021 22:01		
4-Bromofluorobenzene	460-00-4	88	%	70-130	01.08.2021 22:01		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-4 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-004

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.9	10.1	mg/kg	01.09.2021 02:48		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.08.2021 19:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.08.2021 19:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.08.2021 19:13	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.08.2021 19:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	01.08.2021 19:13		
o-Terphenyl	84-15-1	110	%	70-135	01.08.2021 19:13		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-4 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-004

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 11:46

% Moisture:

Seq Number: 3147339

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00500	0.00500	mg/kg	01.08.2021 22:23	U	1
Toluene	108-88-3	<0.00500	0.00500	mg/kg	01.08.2021 22:23	U	1
Ethylbenzene	100-41-4	<0.00500	0.00500	mg/kg	01.08.2021 22:23	U	1
m,p-Xylenes	179601-23-1	<0.0100	0.0100	mg/kg	01.08.2021 22:23	U	1
o-Xylene	95-47-6	<0.00500	0.00500	mg/kg	01.08.2021 22:23	U	1
Total Xylenes	1330-20-7	<0.00500	0.00500	mg/kg	01.08.2021 22:23	U	1
Total BTEX		<0.00500	0.00500	mg/kg	01.08.2021 22:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	01.08.2021 22:23	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.08.2021 22:23	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-5 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-005

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1480	49.7	mg/kg	01.09.2021 02:54		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<250	250	mg/kg	01.08.2021 19:33	U	5
Diesel Range Organics (DRO)	C10C28DRO	2260	250	mg/kg	01.08.2021 19:33		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	279	250	mg/kg	01.08.2021 19:33		5
Total TPH	PHC635	2540	250	mg/kg	01.08.2021 19:33		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	95	%	70-135	01.08.2021 19:33		
o-Terphenyl	84-15-1	115	%	70-135	01.08.2021 19:33		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-5 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-005

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 11:46

% Moisture:

Seq Number: 3147339

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00500	0.00500	mg/kg	01.08.2021 21:16	U	1
Toluene	108-88-3	0.0715	0.0200	mg/kg	01.08.2021 21:16		1
Ethylbenzene	100-41-4	0.0472	0.0200	mg/kg	01.08.2021 21:16		1
m,p-Xylenes	179601-23-1	0.258	0.0400	mg/kg	01.08.2021 21:16		1
o-Xylene	95-47-6	0.101	0.0200	mg/kg	01.08.2021 21:16		1
Total Xylenes	1330-20-7	0.359	0.0200	mg/kg	01.08.2021 21:16		1
Total BTEX		0.478	0.00500	mg/kg	01.08.2021 21:16		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	01.08.2021 21:16		
4-Bromofluorobenzene	460-00-4	86	%	70-130	01.08.2021 21:16		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-6 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-006

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	45.8	10.1	mg/kg	01.09.2021 03:18		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.08.2021 19:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.08.2021 19:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.08.2021 19:53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.08.2021 19:53	U	1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number

% Recovery

Units

Limits

Analysis Date

Flag

111-85-3

121

%

70-135

01.08.2021 19:53

84-15-1

98

%

70-135

01.08.2021 19:53



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-6 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-006

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 11:46

% Moisture:

Seq Number: 3147339

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.08.2021 20:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.08.2021 20:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.08.2021 20:54	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.08.2021 20:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.08.2021 20:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.08.2021 20:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.08.2021 20:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.08.2021 20:54		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.08.2021 20:54		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-7 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-007

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.4	9.90	mg/kg	01.09.2021 03:24		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 20:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 20:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 20:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.08.2021 20:13	
o-Terphenyl	84-15-1	104	%	70-135	01.08.2021 20:13	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-7 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-007

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.09.2021 01:10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.09.2021 01:10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.09.2021 01:10	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.09.2021 01:10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.09.2021 01:10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.09.2021 01:10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.09.2021 01:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.09.2021 01:10	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.09.2021 01:10	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-8 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-008

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1180	9.94	mg/kg	01.09.2021 03:30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.08.2021 20:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.08.2021 20:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.08.2021 20:33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.08.2021 20:33	U	1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number

% Recovery

Units

Limits

Analysis Date

Flag

111-85-3

108

%

70-135

01.08.2021 20:33

84-15-1

110

%

70-135

01.08.2021 20:33



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-8 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-008

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.09.2021 02:28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.09.2021 02:28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.09.2021 02:28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.09.2021 02:28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.09.2021 02:28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.09.2021 02:28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.09.2021 02:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.09.2021 02:28		
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.09.2021 02:28		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-9 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-009

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1090	9.92	mg/kg	01.09.2021 03:36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.08.2021 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.08.2021 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.08.2021 20:53	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.08.2021 20:53	U	1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number

% Recovery

Units

Limits

Analysis Date

Flag

111-85-3

99

%

70-135

01.08.2021 20:53

84-15-1

122

%

70-135

01.08.2021 20:53



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-9 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-009

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:
Basis: Wet Weight

Seq Number: 3147344

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.09.2021 02:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.09.2021 02:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.09.2021 02:50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.09.2021 02:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.09.2021 02:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.09.2021 02:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.09.2021 02:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.09.2021 02:50	
4-Bromofluorobenzene	460-00-4	94	%	70-130	01.09.2021 02:50	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-10 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-010

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1200	10.1	mg/kg	01.09.2021 03:42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.08.2021 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.08.2021 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.08.2021 21:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.08.2021 21:13	U	1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number

% Recovery

Units

Limits

Analysis Date

Flag

111-85-3

114

%

70-135

01.08.2021 21:13

84-15-1

98

%

70-135

01.08.2021 21:13



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **BH-10 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-010

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.09.2021 03:12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.09.2021 03:12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.09.2021 03:12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.09.2021 03:12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.09.2021 03:12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.09.2021 03:12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.09.2021 03:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.09.2021 03:12		
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.09.2021 03:12		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-1 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-011

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.6	9.90	mg/kg	01.09.2021 03:48		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.08.2021 21:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.08.2021 21:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.08.2021 21:53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.08.2021 21:53	U	1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number

% Recovery

Units

Limits

Analysis Date

Flag

111-85-3

110

%

70-135

01.08.2021 21:53

84-15-1

118

%

70-135

01.08.2021 21:53



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-1 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-011

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.09.2021 03:35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.09.2021 03:35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.09.2021 03:35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.09.2021 03:35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.09.2021 03:35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.09.2021 03:35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.09.2021 03:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.09.2021 03:35		
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.09.2021 03:35		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-2 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-012

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.4	10.0	mg/kg	01.09.2021 04:06		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.08.2021 22:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.08.2021 22:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.08.2021 22:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.08.2021 22:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	01.08.2021 22:13	
o-Terphenyl	84-15-1	108	%	70-135	01.08.2021 22:13	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-2 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-012

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.09.2021 03:57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.09.2021 03:57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.09.2021 03:57	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.09.2021 03:57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.09.2021 03:57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.09.2021 03:57	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.09.2021 03:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.09.2021 03:57		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.09.2021 03:57		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-3 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-013

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	01.09.2021 04:12	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.08.2021 22:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.08.2021 22:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.08.2021 22:33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.08.2021 22:33	U	1

Surrogate

1-Chlorooctane

Cas Number 111-85-3

% Recovery 113

Units %

Limits 70-135

Analysis Date 01.08.2021 22:33

Flag

o-Terphenyl

Cas Number 84-15-1

% Recovery 106

Units %

Limits 70-135

Analysis Date 01.08.2021 22:33



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-3 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-013

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:
Basis: Wet Weight

Seq Number: 3147344

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.09.2021 04:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.09.2021 04:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.09.2021 04:20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.09.2021 04:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.09.2021 04:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.09.2021 04:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.09.2021 04:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.09.2021 04:20		
4-Bromofluorobenzene	460-00-4	94	%	70-130	01.09.2021 04:20		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-4 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-014

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.09.2021 04:36	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.08.2021 22:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.08.2021 22:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.08.2021 22:53	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.08.2021 22:53	U	1

Surrogate

1-Chlorooctane

Cas Number 111-85-3

% Recovery 89

Units %

Limits 70-135

Analysis Date 01.08.2021 22:53

Flag

o-Terphenyl

Cas Number 84-15-1

% Recovery 92

Units %

Limits 70-135

Analysis Date 01.08.2021 22:53

Flag



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-4 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-014

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.09.2021 04:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.09.2021 04:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.09.2021 04:42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.09.2021 04:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.09.2021 04:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.09.2021 04:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.09.2021 04:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.09.2021 04:42		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.09.2021 04:42		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-5 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-015

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.7	10.1	mg/kg	01.09.2021 04:42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.08.2021 23:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.08.2021 23:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.08.2021 23:13	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.08.2021 23:13	U	1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number

% Recovery

Units

Limits

Analysis Date

Flag

111-85-3

126

%

70-135

01.08.2021 23:13

84-15-1

107

%

70-135

01.08.2021 23:13



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-5 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-015

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.09.2021 05:04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.09.2021 05:04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.09.2021 05:04	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.09.2021 05:04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.09.2021 05:04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.09.2021 05:04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.09.2021 05:04	U	1

Surrogate

1,4-Difluorobenzene
4-Bromofluorobenzene

Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
540-36-3	100	%	70-130	01.09.2021 05:04	
460-00-4	96	%	70-130	01.09.2021 05:04	



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-6 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-016

Date Collected: 01.06.2021 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 15:45

% Moisture:

Seq Number: 3147349

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.2	10.0	mg/kg	01.09.2021 04:48		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.08.2021 14:00

% Moisture:

Seq Number: 3147409

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.08.2021 23:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.08.2021 23:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.08.2021 23:33	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.08.2021 23:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	130	%	70-135	01.08.2021 23:33		
o-Terphenyl	84-15-1	114	%	70-135	01.08.2021 23:33		



Certificate of Analytical Results 683921

Tetra Tech- Midland, Midland, TX

RHNU TB 12

Sample Id: **SW-6 (0.5')**

Matrix: Soil

Date Received: 01.08.2021 08:25

Lab Sample Id: 683921-016

Date Collected: 01.06.2021 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.08.2021 13:48

% Moisture:

Seq Number: 3147344

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.09.2021 05:27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.09.2021 05:27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.09.2021 05:27	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.09.2021 05:27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.09.2021 05:27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.09.2021 05:27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.09.2021 05:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.09.2021 05:27	
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.09.2021 05:27	

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. **ND** Not Detected.

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



Tetra Tech- Midland

RHNU TB 12

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3147349

Matrix: Solid

Prep Method: E300P

Date Prep: 01.08.2021

MB Sample Id: 7718774-1-BLK

LCS Sample Id: 7718774-1-BKS

LCSD Sample Id: 7718774-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	264	106	90-110	0	20	mg/kg	01.09.2021 02:07	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3147349

Matrix: Soil

Prep Method: E300P

Date Prep: 01.08.2021

Parent Sample Id: 683921-001

MS Sample Id: 683921-001 S

MSD Sample Id: 683921-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	201	212	105	216	107	90-110	2	20	mg/kg	01.09.2021 02:25	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3147349

Matrix: Soil

Prep Method: E300P

Date Prep: 01.08.2021

Parent Sample Id: 683921-011

MS Sample Id: 683921-011 S

MSD Sample Id: 683921-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.6	199	216	102	218	102	90-110	1	20	mg/kg	01.09.2021 03:54	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147409

Matrix: Solid

Prep Method: SW8015P

Date Prep: 01.08.2021

MB Sample Id: 7718843-1-BLK

LCS Sample Id: 7718843-1-BKS

LCSD Sample Id: 7718843-1-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)	<50.0	1000	1090	109	1120	112	70-135	3	35	mg/kg	01.08.2021 16:53	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1110	111	70-135	7	35	mg/kg	01.08.2021 16:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		101		107		70-135	%	01.08.2021 16:53
o-Terphenyl	116		107		113		70-135	%	01.08.2021 16:53

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147409

Matrix: Solid

Prep Method: SW8015P

Date Prep: 01.08.2021

MB Sample Id: 7718843-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.08.2021 16:33	

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



Tetra Tech- Midland

RHNU TB 12

Analytical Method: TPH By SW8015 Mod

Seq Number: 3147409

Parent Sample Id: 683921-001

Matrix: Soil

MS Sample Id: 683921-001 S

Prep Method: SW8015P

Date Prep: 01.08.2021

MSD Sample Id: 683921-001 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)	<50.0	999	1100	110	1020	102	70-135	8	35	mg/kg	01.08.2021 17:53	
Diesel Range Organics (DRO)	53.1	999	1190	114	999	95	70-135	17	35	mg/kg	01.08.2021 17:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		119		70-135	%	01.08.2021 17:53
o-Terphenyl	108		104		70-135	%	01.08.2021 17:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147339

MB Sample Id: 7718766-1-BLK

Matrix: Solid

LCS Sample Id: 7718766-1-BKS

Prep Method: SW5035A

Date Prep: 01.08.2021

LCSD Sample Id: 7718766-1-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	0.108	108	0.103	103	70-130	5	35	mg/kg	01.08.2021 12:20	
Toluene	<0.00200	0.100	0.104	104	0.101	101	70-130	3	35	mg/kg	01.08.2021 12:20	
Ethylbenzene	<0.00200	0.100	0.0965	97	0.0935	94	71-129	3	35	mg/kg	01.08.2021 12:20	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.190	95	70-135	4	35	mg/kg	01.08.2021 12:20	
o-Xylene	<0.00200	0.100	0.0956	96	0.0931	93	71-133	3	35	mg/kg	01.08.2021 12:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		96		96		70-130	%	01.08.2021 12:20
4-Bromofluorobenzene	86		88		88		70-130	%	01.08.2021 12:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147344

MB Sample Id: 7718767-1-BLK

Matrix: Solid

LCS Sample Id: 7718767-1-BKS

Prep Method: SW5035A

Date Prep: 01.08.2021

LCSD Sample Id: 7718767-1-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	0.0984	98	0.108	108	70-130	9	35	mg/kg	01.09.2021 00:03	
Toluene	<0.00200	0.100	0.0940	94	0.102	102	70-130	8	35	mg/kg	01.09.2021 00:03	
Ethylbenzene	<0.00200	0.100	0.0857	86	0.0928	93	71-129	8	35	mg/kg	01.09.2021 00:03	
m,p-Xylenes	<0.00400	0.200	0.174	87	0.187	94	70-135	7	35	mg/kg	01.09.2021 00:03	
o-Xylene	<0.00200	0.100	0.0871	87	0.0940	94	71-133	8	35	mg/kg	01.09.2021 00:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		94		95		70-130	%	01.09.2021 00:03
4-Bromofluorobenzene	87		88		88		70-130	%	01.09.2021 00:03

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



Tetra Tech- Midland

RHNU TB 12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147339

Parent Sample Id: 683825-001

Matrix: Soil

MS Sample Id: 683825-001 S

Prep Method: SW5035A

Date Prep: 01.08.2021

MSD Sample Id: 683825-001 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	0.105	105	0.108	108	70-130	3	35	mg/kg	01.08.2021 13:04	
Toluene	<0.00200	0.100	0.101	101	0.104	104	70-130	3	35	mg/kg	01.08.2021 13:04	
Ethylbenzene	<0.00200	0.100	0.0943	94	0.0967	97	71-129	3	35	mg/kg	01.08.2021 13:04	
m,p-Xylenes	<0.00401	0.200	0.193	97	0.197	98	70-135	2	35	mg/kg	01.08.2021 13:04	
o-Xylene	<0.00200	0.100	0.0941	94	0.0970	97	71-133	3	35	mg/kg	01.08.2021 13:04	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		96		70-130	%	01.08.2021 13:04
4-Bromofluorobenzene	88		89		70-130	%	01.08.2021 13:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3147344

Parent Sample Id: 683921-007

Matrix: Soil

MS Sample Id: 683921-007 S

Prep Method: SW5035A

Date Prep: 01.08.2021

MSD Sample Id: 683921-007 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	0.0903	89	0.100	100	70-130	10	35	mg/kg	01.09.2021 00:48	
Toluene	<0.00202	0.101	0.0912	90	0.0955	96	70-130	5	35	mg/kg	01.09.2021 00:48	
Ethylbenzene	<0.00202	0.101	0.0863	85	0.0875	88	71-129	1	35	mg/kg	01.09.2021 00:48	
m,p-Xylenes	<0.00403	0.202	0.177	88	0.177	88	70-135	0	35	mg/kg	01.09.2021 00:48	
o-Xylene	<0.00202	0.101	0.0865	86	0.0883	88	71-133	2	35	mg/kg	01.09.2021 00:48	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		95		70-130	%	01.09.2021 00:48
4-Bromofluorobenzene	88		87		70-130	%	01.09.2021 00:48

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

Analysis Request of Chain of Custody Record

Page 2 of 2



Tetra Tech, Inc.

901 West Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 692-4559
Fax (432) 692-3946

Client Name: EOG

Site Manager:

Mike Carmona

Project Name: RHNU TB 12

Project Location:
(county, state) Lea County, NM

Project #:

212C-MD-02398

Invoice to:

EOG Todd Wells

Receiving Laboratory:

Xenoco

Sampler Signature:

Ezequiel Moreno

Comments:

SAMPLE IDENTIFICATION

LAB #
(LAB USE ONLY)

SAMPLING

YEAR: 2020

DATE

TIME

MATRIX

WATER
SOIL
HCL
HNO₃
ICE
None

PRESERVATIVE METHOD

CONTAINERS
FILTERED (Y/N)

BTEX 8021B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride 300.0

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

TPH 8015R

Hold

ANALYSIS REQUEST

(Circle or Specify Method No.)

Relinquished by: Date: Time:

Received by: Date: Time:

Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Date: Time:

LAB USE ONLY

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Sample Temperature

0280.6

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

483921

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 01.08.2021 08.25.00 AM

Work Order #: 683921

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.08.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.08.2021



Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-600-1

Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Red Hills North Unit TB 12

For:

Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
5/5/2021 9:14:35 AM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Laboratory Job ID: 890-600-1
SDG: Lea County NM

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Job ID: 890-600-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

**Job Narrative
890-600-1****Receipt**

The samples were received on 4/29/2021 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 received and analyzed from an unpreserved bulk soil jar: BH-1 (890-600-1), BH-2 (890-600-2), BH-3 (890-600-3), BH-4 (890-600-4), BH-5 (890-600-5), BH-6 (890-600-6), BH-7 (890-600-7), BH-8 (890-600-8), BH-9 (890-600-9), BH-10 (890-600-10), SW-1 (890-600-11), SW-2 (890-600-12), SW-3 (890-600-13), SW-4 (890-600-14), SW-5 (890-600-15), SW-6 (890-600-16), SW-7 (890-600-17), SW-8 (890-600-18), SW-9 (890-600-19) and SW-10 (890-600-20).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH-1 (890-600-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-1

Lab Sample ID: 890-600-1

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U ** F2	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:56	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:56	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:56	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 12:56	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:56	1
Xylenes, Total	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 12:56	1
Total BTEX	<0.00399	U *+ *1 F2	0.00399		mg/Kg		04/30/21 09:09	05/01/21 12:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	04/30/21 09:09	05/01/21 12:56	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/30/21 09:09	05/01/21 12:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	49.9		mg/Kg		04/30/21 14:29	05/02/21 22:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		04/30/21 14:29	05/02/21 22:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 22:12	1
Total TPH	<49.9	U F1	49.9		mg/Kg		04/30/21 14:29	05/02/21 22:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	04/30/21 14:29	05/02/21 22:12	1
o-Terphenyl	115		70 - 130	04/30/21 14:29	05/02/21 22:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	423		4.95		mg/Kg			05/03/21 23:16	1

Client Sample ID: BH-2

Lab Sample ID: 890-600-2

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 13:16	1
Toluene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 13:16	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 13:16	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 13:16	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 13:16	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 13:16	1
Total BTEX	<0.00398	U *+ *1	0.00398		mg/Kg		04/30/21 09:09	05/01/21 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	04/30/21 09:09	05/01/21 13:16	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/30/21 09:09	05/01/21 13:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-2

Lab Sample ID: 890-600-2

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 2

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:16	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	04/30/21 14:29	05/02/21 23:16	1
o-Terphenyl	122		70 - 130	04/30/21 14:29	05/02/21 23:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	419		4.95		mg/Kg			05/03/21 23:21	1

Client Sample ID: BH-3

Lab Sample ID: 890-600-3

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:37	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:37	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:37	1
m-Xylene & p-Xylene	<0.00401	U **	0.00401		mg/Kg		04/30/21 09:09	05/01/21 13:37	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:37	1
Xylenes, Total	<0.00401	U **	0.00401		mg/Kg		04/30/21 09:09	05/01/21 13:37	1
Total BTEX	<0.00401	U ** *1	0.00401		mg/Kg		04/30/21 09:09	05/01/21 13:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	04/30/21 09:09	05/01/21 13:37	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/30/21 09:09	05/01/21 13:37	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/30/21 14:29	05/02/21 23:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/30/21 14:29	05/02/21 23:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/30/21 14:29	05/02/21 23:37	1
Total TPH	<49.8	U	49.8		mg/Kg		04/30/21 14:29	05/02/21 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	04/30/21 14:29	05/02/21 23:37	1
o-Terphenyl	115		70 - 130	04/30/21 14:29	05/02/21 23:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	431		5.04		mg/Kg			05/03/21 23:26	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-4

Lab Sample ID: 890-600-4

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:57	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:57	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:57	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 13:57	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 13:57	1
Xylenes, Total	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 13:57	1
Total BTEX	<0.00399	U *+ *1	0.00399		mg/Kg		04/30/21 09:09	05/01/21 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	04/30/21 09:09	05/01/21 13:57	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/30/21 09:09	05/01/21 13:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:58	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/02/21 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	04/30/21 14:29	05/02/21 23:58	1
o-Terphenyl	112		70 - 130	04/30/21 14:29	05/02/21 23:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.3		4.98		mg/Kg			05/03/21 23:32	1

Client Sample ID: BH-5

Lab Sample ID: 890-600-5

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:17	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:17	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:17	1
m-Xylene & p-Xylene	<0.00400	U **	0.00400		mg/Kg		04/30/21 09:09	05/01/21 14:17	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:17	1
Xylenes, Total	<0.00400	U **	0.00400		mg/Kg		04/30/21 09:09	05/01/21 14:17	1
Total BTEX	<0.00400	U *+ *1	0.00400		mg/Kg		04/30/21 09:09	05/01/21 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/30/21 09:09	05/01/21 14:17	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/30/21 09:09	05/01/21 14:17	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-5

Lab Sample ID: 890-600-5

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:19	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	04/30/21 14:29	05/03/21 00:19	1
o-Terphenyl	121		70 - 130	04/30/21 14:29	05/03/21 00:19	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.1		5.03		mg/Kg			05/03/21 23:37	1

Client Sample ID: BH-6

Lab Sample ID: 890-600-6

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:38	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:38	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:38	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 14:38	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 14:38	1
Xylenes, Total	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 14:38	1
Total BTEX	<0.00399	U * *1	0.00399		mg/Kg		04/30/21 09:09	05/01/21 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	04/30/21 09:09	05/01/21 14:38	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/30/21 09:09	05/01/21 14:38	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:40	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 00:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130	04/30/21 14:29	05/03/21 00:40	1
o-Terphenyl	133	S1+	70 - 130	04/30/21 14:29	05/03/21 00:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.7		5.00		mg/Kg			05/03/21 23:43	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-7

Lab Sample ID: 890-600-7

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 14:58	1
Toluene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 14:58	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 14:58	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 14:58	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 14:58	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 14:58	1
Total BTEX	<0.00398	U *+ *1	0.00398		mg/Kg		04/30/21 09:09	05/01/21 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	04/30/21 09:09	05/01/21 14:58	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/30/21 09:09	05/01/21 14:58	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 01:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 01:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 01:01	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	04/30/21 14:29	05/03/21 01:01	1
o-Terphenyl	122		70 - 130	04/30/21 14:29	05/03/21 01:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		4.95		mg/Kg			05/03/21 23:59	1

Client Sample ID: BH-8

Lab Sample ID: 890-600-8

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 15:19	1
Toluene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 15:19	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 15:19	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 15:19	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 15:19	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 15:19	1
Total BTEX	<0.00398	U *+ *1	0.00398		mg/Kg		04/30/21 09:09	05/01/21 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	04/30/21 09:09	05/01/21 15:19	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/30/21 09:09	05/01/21 15:19	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-8

Lab Sample ID: 890-600-8

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:22	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	04/30/21 14:29	05/03/21 01:22	1
o-Terphenyl	130		70 - 130	04/30/21 14:29	05/03/21 01:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.6		4.98		mg/Kg			05/04/21 00:04	1

Client Sample ID: BH-9

Lab Sample ID: 890-600-9

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 15:39	1
Toluene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 15:39	1
Ethylbenzene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 15:39	1
m-Xylene & p-Xylene	<0.00396	U **	0.00396		mg/Kg		04/30/21 09:09	05/01/21 15:39	1
o-Xylene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 15:39	1
Xylenes, Total	<0.00396	U **	0.00396		mg/Kg		04/30/21 09:09	05/01/21 15:39	1
Total BTEX	<0.00396	U ** *1	0.00396		mg/Kg		04/30/21 09:09	05/01/21 15:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	04/30/21 09:09	05/01/21 15:39	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/30/21 09:09	05/01/21 15:39	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:43	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	04/30/21 14:29	05/03/21 01:43	1
o-Terphenyl	128		70 - 130	04/30/21 14:29	05/03/21 01:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	91.7		5.05		mg/Kg			05/04/21 00:20	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-10

Lab Sample ID: 890-600-10

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 16:00	1
Toluene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 16:00	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 16:00	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 16:00	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 16:00	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 16:00	1
Total BTEX	<0.00398	U ** *1	0.00398		mg/Kg		04/30/21 09:09	05/01/21 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	04/30/21 09:09	05/01/21 16:00	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/30/21 09:09	05/01/21 16:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:03	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/30/21 14:29	05/03/21 02:03	1
o-Terphenyl	127		70 - 130	04/30/21 14:29	05/03/21 02:03	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	155		4.99		mg/Kg			05/04/21 00:26	1

Client Sample ID: SW-1

Lab Sample ID: 890-600-11

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 17:22	1
Toluene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 17:22	1
Ethylbenzene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 17:22	1
m-Xylene & p-Xylene	<0.00397	U **	0.00397		mg/Kg		04/30/21 09:09	05/01/21 17:22	1
o-Xylene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 17:22	1
Xylenes, Total	<0.00397	U **	0.00397		mg/Kg		04/30/21 09:09	05/01/21 17:22	1
Total BTEX	<0.00397	U ** *1	0.00397		mg/Kg		04/30/21 09:09	05/01/21 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	04/30/21 09:09	05/01/21 17:22	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/30/21 09:09	05/01/21 17:22	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-1

Lab Sample ID: 890-600-11

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:46	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 02:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	04/30/21 14:29	05/03/21 02:46	1
o-Terphenyl	116		70 - 130	04/30/21 14:29	05/03/21 02:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.6		4.98		mg/Kg			05/04/21 00:31	1

Client Sample ID: SW-2

Lab Sample ID: 890-600-12

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 17:42	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 17:42	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 17:42	1
m-Xylene & p-Xylene	<0.00400	U **	0.00400		mg/Kg		04/30/21 09:09	05/01/21 17:42	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 17:42	1
Xylenes, Total	<0.00400	U **	0.00400		mg/Kg		04/30/21 09:09	05/01/21 17:42	1
Total BTEX	<0.00400	U ** *1	0.00400		mg/Kg		04/30/21 09:09	05/01/21 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	04/30/21 09:09	05/01/21 17:42	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/30/21 09:09	05/01/21 17:42	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:07	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	04/30/21 14:29	05/03/21 03:07	1
o-Terphenyl	117		70 - 130	04/30/21 14:29	05/03/21 03:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.0		4.96		mg/Kg			05/04/21 00:36	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-3

Lab Sample ID: 890-600-13

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:03	1
Toluene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:03	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:03	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 18:03	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:03	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 18:03	1
Total BTEX	<0.00398	U *+ *1	0.00398		mg/Kg		04/30/21 09:09	05/01/21 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	04/30/21 09:09	05/01/21 18:03	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/30/21 09:09	05/01/21 18:03	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:28	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	04/30/21 14:29	05/03/21 03:28	1
o-Terphenyl	114		70 - 130	04/30/21 14:29	05/03/21 03:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	84.1		4.97		mg/Kg			05/04/21 00:42	1

Client Sample ID: SW-4

Lab Sample ID: 890-600-14

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U **	0.00202		mg/Kg		04/30/21 09:09	05/01/21 18:23	1
Toluene	<0.00202	U **	0.00202		mg/Kg		04/30/21 09:09	05/01/21 18:23	1
Ethylbenzene	<0.00202	U **	0.00202		mg/Kg		04/30/21 09:09	05/01/21 18:23	1
m-Xylene & p-Xylene	<0.00404	U **	0.00404		mg/Kg		04/30/21 09:09	05/01/21 18:23	1
o-Xylene	<0.00202	U **	0.00202		mg/Kg		04/30/21 09:09	05/01/21 18:23	1
Xylenes, Total	<0.00404	U **	0.00404		mg/Kg		04/30/21 09:09	05/01/21 18:23	1
Total BTEX	<0.00404	U *+ *1	0.00404		mg/Kg		04/30/21 09:09	05/01/21 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	04/30/21 09:09	05/01/21 18:23	1
1,4-Difluorobenzene (Surr)	92		70 - 130	04/30/21 09:09	05/01/21 18:23	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-4

Lab Sample ID: 890-600-14

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 2

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 03:48	1
Diesel Range Organics (Over C10-C28)	75.5		49.9		mg/Kg		04/30/21 14:29	05/03/21 03:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 03:48	1
Total TPH	75.5		49.9		mg/Kg		04/30/21 14:29	05/03/21 03:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	04/30/21 14:29	05/03/21 03:48	1
o-Terphenyl	119		70 - 130	04/30/21 14:29	05/03/21 03:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64.3		5.00		mg/Kg			05/04/21 00:47	1

Client Sample ID: SW-5

Lab Sample ID: 890-600-15

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:43	1
Toluene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:43	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:43	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 18:43	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 18:43	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 18:43	1
Total BTEX	<0.00398	U ** *1	0.00398		mg/Kg		04/30/21 09:09	05/01/21 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	04/30/21 09:09	05/01/21 18:43	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/30/21 09:09	05/01/21 18:43	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:09	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	04/30/21 14:29	05/03/21 04:09	1
o-Terphenyl	132	S1+	70 - 130	04/30/21 14:29	05/03/21 04:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	155		5.00		mg/Kg			05/04/21 00:52	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-6

Lab Sample ID: 890-600-16

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 19:04	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 19:04	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 19:04	1
m-Xylene & p-Xylene	<0.00401	U **	0.00401		mg/Kg		04/30/21 09:09	05/01/21 19:04	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 19:04	1
Xylenes, Total	<0.00401	U **	0.00401		mg/Kg		04/30/21 09:09	05/01/21 19:04	1
Total BTEX	<0.00401	U ** *1	0.00401		mg/Kg		04/30/21 09:09	05/01/21 19:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	04/30/21 09:09	05/01/21 19:04	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/30/21 09:09	05/01/21 19:04	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 04:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 04:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 04:30	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	04/30/21 14:29	05/03/21 04:30	1
o-Terphenyl	121		70 - 130	04/30/21 14:29	05/03/21 04:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	683		4.95		mg/Kg			05/04/21 20:23	1

Client Sample ID: SW-7

Lab Sample ID: 890-600-17

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 19:24	1
Toluene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 19:24	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 19:24	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 19:24	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		04/30/21 09:09	05/01/21 19:24	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		04/30/21 09:09	05/01/21 19:24	1
Total BTEX	<0.00398	U ** *1	0.00398		mg/Kg		04/30/21 09:09	05/01/21 19:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	04/30/21 09:09	05/01/21 19:24	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/30/21 09:09	05/01/21 19:24	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-7

Lab Sample ID: 890-600-17

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:51	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 04:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	04/30/21 14:29	05/03/21 04:51	1
o-Terphenyl	133	S1+	70 - 130	04/30/21 14:29	05/03/21 04:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2810		24.8		mg/Kg			05/04/21 20:28	5

Client Sample ID: SW-8

Lab Sample ID: 890-600-18

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 19:45	1
Toluene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 19:45	1
Ethylbenzene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 19:45	1
m-Xylene & p-Xylene	<0.00396	U **	0.00396		mg/Kg		04/30/21 09:09	05/01/21 19:45	1
o-Xylene	<0.00198	U **	0.00198		mg/Kg		04/30/21 09:09	05/01/21 19:45	1
Xylenes, Total	<0.00396	U **	0.00396		mg/Kg		04/30/21 09:09	05/01/21 19:45	1
Total BTEX	<0.00396	U ** *1	0.00396		mg/Kg		04/30/21 09:09	05/01/21 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	04/30/21 09:09	05/01/21 19:45	1
1,4-Difluorobenzene (Surr)	92		70 - 130	04/30/21 09:09	05/01/21 19:45	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:12	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/30/21 14:29	05/03/21 05:12	1
o-Terphenyl	132	S1+	70 - 130	04/30/21 14:29	05/03/21 05:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	778		4.97		mg/Kg			05/04/21 20:34	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-9

Lab Sample ID: 890-600-19

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:05	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:05	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:05	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 20:05	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:05	1
Xylenes, Total	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 20:05	1
Total BTEX	<0.00399	U *+ *1	0.00399		mg/Kg		04/30/21 09:09	05/01/21 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	04/30/21 09:09	05/01/21 20:05	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/30/21 09:09	05/01/21 20:05	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 05:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 05:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 05:33	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 14:29	05/03/21 05:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	04/30/21 14:29	05/03/21 05:33	1
o-Terphenyl	123		70 - 130	04/30/21 14:29	05/03/21 05:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	470		5.00		mg/Kg			05/04/21 20:39	1

Client Sample ID: SW-10

Lab Sample ID: 890-600-20

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:26	1
Toluene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:26	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:26	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 20:26	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		04/30/21 09:09	05/01/21 20:26	1
Xylenes, Total	<0.00399	U **	0.00399		mg/Kg		04/30/21 09:09	05/01/21 20:26	1
Total BTEX	<0.00399	U *+ *1	0.00399		mg/Kg		04/30/21 09:09	05/01/21 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	04/30/21 09:09	05/01/21 20:26	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/30/21 09:09	05/01/21 20:26	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-10

Lab Sample ID: 890-600-20

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Sample Depth: - 3.5

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:54	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/03/21 05:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	04/30/21 14:29	05/03/21 05:54	1
o-Terphenyl	118		70 - 130	04/30/21 14:29	05/03/21 05:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1160		25.0		mg/Kg			05/04/21 20:44	5

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-600-1	BH-1	98	97
890-600-1 MS	BH-1	115	97
890-600-1 MSD	BH-1	115	93
890-600-2	BH-2	95	93
890-600-3	BH-3	96	95
890-600-4	BH-4	93	91
890-600-5	BH-5	102	91
890-600-6	BH-6	95	93
890-600-7	BH-7	94	95
890-600-8	BH-8	96	94
890-600-9	BH-9	93	96
890-600-10	BH-10	96	93
890-600-11	SW-1	100	95
890-600-12	SW-2	98	91
890-600-13	SW-3	93	91
890-600-14	SW-4	98	92
890-600-15	SW-5	91	93
890-600-16	SW-6	89	91
890-600-17	SW-7	94	95
890-600-18	SW-8	97	92
890-600-19	SW-9	96	95
890-600-20	SW-10	98	94
LCS 880-2519/1-A	Lab Control Sample	178 S1+	150 S1+
LCSD 880-2519/2-A	Lab Control Sample Dup	113	99
MB 880-2499/5-A	Method Blank	89	89
MB 880-2519/5-A	Method Blank	90	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-600-1	BH-1	105	115
890-600-1 MS	BH-1	107	105
890-600-1 MSD	BH-1	110	110
890-600-2	BH-2	110	122
890-600-3	BH-3	106	115
890-600-4	BH-4	106	112
890-600-5	BH-5	112	121
890-600-6	BH-6	126	133 S1+
890-600-7	BH-7	110	122
890-600-8	BH-8	117	130
890-600-9	BH-9	112	128
890-600-10	BH-10	114	127
890-600-11	SW-1	109	116

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.

Job ID: 890-600-1

Project/Site: Red Hills North Unit TB 12

SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-600-12	SW-2	112	117
890-600-13	SW-3	106	114
890-600-14	SW-4	108	119
890-600-15	SW-5	116	132 S1+
890-600-16	SW-6	109	121
890-600-17	SW-7	116	133 S1+
890-600-18	SW-8	114	132 S1+
890-600-19	SW-9	108	123
890-600-20	SW-10	106	118
LCS 880-2554/2-A	Lab Control Sample	106	113
LCSD 880-2554/3-A	Lab Control Sample Dup	103	104
MB 880-2554/1-A	Method Blank	112	130

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2499/5-A

Matrix: Solid

Analysis Batch: 2544

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2499

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/21 13:48	05/01/21 01:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/21 13:48	05/01/21 01:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/21 13:48	05/01/21 01:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/21 13:48	05/01/21 01:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/21 13:48	05/01/21 01:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/21 13:48	05/01/21 01:41	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/29/21 13:48	05/01/21 01:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	04/29/21 13:48	05/01/21 01:41	1
1,4-Difluorobenzene (Surr)	89		70 - 130	04/29/21 13:48	05/01/21 01:41	1

Lab Sample ID: MB 880-2519/5-A

Matrix: Solid

Analysis Batch: 2544

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 09:09	05/01/21 12:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/30/21 09:09	05/01/21 12:34	1
1,4-Difluorobenzene (Surr)	90		70 - 130	04/30/21 09:09	05/01/21 12:34	1

Lab Sample ID: LCS 880-2519/1-A

Matrix: Solid

Analysis Batch: 2544

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1517	*+	mg/Kg		152	70 - 130
Toluene	0.100	0.1476	*+	mg/Kg		148	70 - 130
Ethylbenzene	0.100	0.1512	*+	mg/Kg		151	70 - 130
m-Xylene & p-Xylene	0.200	0.3230	*+	mg/Kg		162	70 - 130
o-Xylene	0.100	0.1649	*+	mg/Kg		165	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	178	S1+	70 - 130
1,4-Difluorobenzene (Surr)	150	S1+	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-2519/2-A

Matrix: Solid

Analysis Batch: 2544

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2519

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1170		mg/Kg		117	70 - 130	26	35
Toluene	0.100	0.1123		mg/Kg		112	70 - 130	27	35
Ethylbenzene	0.100	0.1146		mg/Kg		115	70 - 130	28	35
m-Xylene & p-Xylene	0.200	0.2430		mg/Kg		121	70 - 130	28	35
o-Xylene	0.100	0.1235		mg/Kg		124	70 - 130	29	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-600-1 MS

Matrix: Solid

Analysis Batch: 2544

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 2519

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U ** F2	0.101	0.1025		mg/Kg		102	70 - 130		
Toluene	<0.00200	U **	0.101	0.09954		mg/Kg		99	70 - 130		
Ethylbenzene	<0.00200	U **	0.101	0.1026		mg/Kg		102	70 - 130		
m-Xylene & p-Xylene	<0.00399	U **	0.202	0.2162		mg/Kg		107	70 - 130		
o-Xylene	<0.00200	U **	0.101	0.1088		mg/Kg		108	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-600-1 MSD

Matrix: Solid

Analysis Batch: 2544

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 2519

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U ** F2	0.0994	0.07077	F2	mg/Kg		71	70 - 130	37	35
Toluene	<0.00200	U **	0.0994	0.08369		mg/Kg		84	70 - 130	17	35
Ethylbenzene	<0.00200	U **	0.0994	0.08237		mg/Kg		83	70 - 130	22	35
m-Xylene & p-Xylene	<0.00399	U **	0.199	0.1679		mg/Kg		84	70 - 130	25	35
o-Xylene	<0.00200	U **	0.0994	0.08644		mg/Kg		87	70 - 130	23	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-2554/1-A

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2554

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/02/21 21:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/02/21 21:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/02/21 21:08	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 14:29	05/02/21 21:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	04/30/21 14:29	05/02/21 21:08	1
o-Terphenyl	130		70 - 130	04/30/21 14:29	05/02/21 21:08	1

Lab Sample ID: LCS 880-2554/2-A

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2554

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1131		mg/Kg		113	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1176		mg/Kg		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-2554/3-A

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2554

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1060		mg/Kg		106	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	1095		mg/Kg		110	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 890-600-1 MS

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 2554

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	1278		mg/Kg		128	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	1331	F1	mg/Kg		133	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-600-1 MS

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 2554

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-600-1 MSD

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 2554

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	1337	F1	mg/Kg		134	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	1422	F1	mg/Kg		143	70 - 130	7	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	110		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2562/1-A

Matrix: Solid

Analysis Batch: 2642

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/03/21 22:11	1

Lab Sample ID: LCS 880-2562/2-A

Matrix: Solid

Analysis Batch: 2642

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	244.7		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-2562/3-A

Matrix: Solid

Analysis Batch: 2642

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	242.8		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 890-600-6 MS

Matrix: Solid

Analysis Batch: 2642

Client Sample ID: BH-6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	39.7		250	276.3		mg/Kg		95	90 - 110

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-600-6 MSD

Matrix: Solid

Analysis Batch: 2642

Client Sample ID: BH-6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	39.7		250	276.2		mg/Kg		95	90 - 110	0	20

Lab Sample ID: MB 880-2565/1-A

Matrix: Solid

Analysis Batch: 2688

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/04/21 18:03	1

Lab Sample ID: LCS 880-2565/2-A

Matrix: Solid

Analysis Batch: 2688

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	240.1		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-2565/3-A

Matrix: Solid

Analysis Batch: 2688

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	235.5		mg/Kg		94	90 - 110	2	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

GC VOA

Prep Batch: 2499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2499/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 2519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-1	BH-1	Total/NA	Solid	5035	
890-600-2	BH-2	Total/NA	Solid	5035	
890-600-3	BH-3	Total/NA	Solid	5035	
890-600-4	BH-4	Total/NA	Solid	5035	
890-600-5	BH-5	Total/NA	Solid	5035	
890-600-6	BH-6	Total/NA	Solid	5035	
890-600-7	BH-7	Total/NA	Solid	5035	
890-600-8	BH-8	Total/NA	Solid	5035	
890-600-9	BH-9	Total/NA	Solid	5035	
890-600-10	BH-10	Total/NA	Solid	5035	
890-600-11	SW-1	Total/NA	Solid	5035	
890-600-12	SW-2	Total/NA	Solid	5035	
890-600-13	SW-3	Total/NA	Solid	5035	
890-600-14	SW-4	Total/NA	Solid	5035	
890-600-15	SW-5	Total/NA	Solid	5035	
890-600-16	SW-6	Total/NA	Solid	5035	
890-600-17	SW-7	Total/NA	Solid	5035	
890-600-18	SW-8	Total/NA	Solid	5035	
890-600-19	SW-9	Total/NA	Solid	5035	
890-600-20	SW-10	Total/NA	Solid	5035	
MB 880-2519/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2519/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2519/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-600-1 MS	BH-1	Total/NA	Solid	5035	
890-600-1 MSD	BH-1	Total/NA	Solid	5035	

Analysis Batch: 2544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-1	BH-1	Total/NA	Solid	8021B	2519
890-600-2	BH-2	Total/NA	Solid	8021B	2519
890-600-3	BH-3	Total/NA	Solid	8021B	2519
890-600-4	BH-4	Total/NA	Solid	8021B	2519
890-600-5	BH-5	Total/NA	Solid	8021B	2519
890-600-6	BH-6	Total/NA	Solid	8021B	2519
890-600-7	BH-7	Total/NA	Solid	8021B	2519
890-600-8	BH-8	Total/NA	Solid	8021B	2519
890-600-9	BH-9	Total/NA	Solid	8021B	2519
890-600-10	BH-10	Total/NA	Solid	8021B	2519
890-600-11	SW-1	Total/NA	Solid	8021B	2519
890-600-12	SW-2	Total/NA	Solid	8021B	2519
890-600-13	SW-3	Total/NA	Solid	8021B	2519
890-600-14	SW-4	Total/NA	Solid	8021B	2519
890-600-15	SW-5	Total/NA	Solid	8021B	2519
890-600-16	SW-6	Total/NA	Solid	8021B	2519
890-600-17	SW-7	Total/NA	Solid	8021B	2519
890-600-18	SW-8	Total/NA	Solid	8021B	2519
890-600-19	SW-9	Total/NA	Solid	8021B	2519

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 2544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-20	SW-10	Total/NA	Solid	8021B	2519
MB 880-2499/5-A	Method Blank	Total/NA	Solid	8021B	2499
MB 880-2519/5-A	Method Blank	Total/NA	Solid	8021B	2519
LCS 880-2519/1-A	Lab Control Sample	Total/NA	Solid	8021B	2519
LCSD 880-2519/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2519
890-600-1 MS	BH-1	Total/NA	Solid	8021B	2519
890-600-1 MSD	BH-1	Total/NA	Solid	8021B	2519

GC Semi VOA

Prep Batch: 2554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-1	BH-1	Total/NA	Solid	8015NM Prep	
890-600-2	BH-2	Total/NA	Solid	8015NM Prep	
890-600-3	BH-3	Total/NA	Solid	8015NM Prep	
890-600-4	BH-4	Total/NA	Solid	8015NM Prep	
890-600-5	BH-5	Total/NA	Solid	8015NM Prep	
890-600-6	BH-6	Total/NA	Solid	8015NM Prep	
890-600-7	BH-7	Total/NA	Solid	8015NM Prep	
890-600-8	BH-8	Total/NA	Solid	8015NM Prep	
890-600-9	BH-9	Total/NA	Solid	8015NM Prep	
890-600-10	BH-10	Total/NA	Solid	8015NM Prep	
890-600-11	SW-1	Total/NA	Solid	8015NM Prep	
890-600-12	SW-2	Total/NA	Solid	8015NM Prep	
890-600-13	SW-3	Total/NA	Solid	8015NM Prep	
890-600-14	SW-4	Total/NA	Solid	8015NM Prep	
890-600-15	SW-5	Total/NA	Solid	8015NM Prep	
890-600-16	SW-6	Total/NA	Solid	8015NM Prep	
890-600-17	SW-7	Total/NA	Solid	8015NM Prep	
890-600-18	SW-8	Total/NA	Solid	8015NM Prep	
890-600-19	SW-9	Total/NA	Solid	8015NM Prep	
890-600-20	SW-10	Total/NA	Solid	8015NM Prep	
MB 880-2554/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2554/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-600-1 MS	BH-1	Total/NA	Solid	8015NM Prep	
890-600-1 MSD	BH-1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-1	BH-1	Total/NA	Solid	8015B NM	2554
890-600-2	BH-2	Total/NA	Solid	8015B NM	2554
890-600-3	BH-3	Total/NA	Solid	8015B NM	2554
890-600-4	BH-4	Total/NA	Solid	8015B NM	2554
890-600-5	BH-5	Total/NA	Solid	8015B NM	2554
890-600-6	BH-6	Total/NA	Solid	8015B NM	2554
890-600-7	BH-7	Total/NA	Solid	8015B NM	2554
890-600-8	BH-8	Total/NA	Solid	8015B NM	2554
890-600-9	BH-9	Total/NA	Solid	8015B NM	2554
890-600-10	BH-10	Total/NA	Solid	8015B NM	2554
890-600-11	SW-1	Total/NA	Solid	8015B NM	2554

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 2598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-12	SW-2	Total/NA	Solid	8015B NM	2554
890-600-13	SW-3	Total/NA	Solid	8015B NM	2554
890-600-14	SW-4	Total/NA	Solid	8015B NM	2554
890-600-15	SW-5	Total/NA	Solid	8015B NM	2554
890-600-16	SW-6	Total/NA	Solid	8015B NM	2554
890-600-17	SW-7	Total/NA	Solid	8015B NM	2554
890-600-18	SW-8	Total/NA	Solid	8015B NM	2554
890-600-19	SW-9	Total/NA	Solid	8015B NM	2554
890-600-20	SW-10	Total/NA	Solid	8015B NM	2554
MB 880-2554/1-A	Method Blank	Total/NA	Solid	8015B NM	2554
LCS 880-2554/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2554
LCSD 880-2554/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2554
890-600-1 MS	BH-1	Total/NA	Solid	8015B NM	2554
890-600-1 MSD	BH-1	Total/NA	Solid	8015B NM	2554

HPLC/IC

Leach Batch: 2562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-1	BH-1	Soluble	Solid	DI Leach	
890-600-2	BH-2	Soluble	Solid	DI Leach	
890-600-3	BH-3	Soluble	Solid	DI Leach	
890-600-4	BH-4	Soluble	Solid	DI Leach	
890-600-5	BH-5	Soluble	Solid	DI Leach	
890-600-6	BH-6	Soluble	Solid	DI Leach	
890-600-7	BH-7	Soluble	Solid	DI Leach	
890-600-8	BH-8	Soluble	Solid	DI Leach	
890-600-9	BH-9	Soluble	Solid	DI Leach	
890-600-10	BH-10	Soluble	Solid	DI Leach	
890-600-11	SW-1	Soluble	Solid	DI Leach	
890-600-12	SW-2	Soluble	Solid	DI Leach	
890-600-13	SW-3	Soluble	Solid	DI Leach	
890-600-14	SW-4	Soluble	Solid	DI Leach	
890-600-15	SW-5	Soluble	Solid	DI Leach	
MB 880-2562/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2562/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2562/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-600-6 MS	BH-6	Soluble	Solid	DI Leach	
890-600-6 MSD	BH-6	Soluble	Solid	DI Leach	

Leach Batch: 2565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-16	SW-6	Soluble	Solid	DI Leach	
890-600-17	SW-7	Soluble	Solid	DI Leach	
890-600-18	SW-8	Soluble	Solid	DI Leach	
890-600-19	SW-9	Soluble	Solid	DI Leach	
890-600-20	SW-10	Soluble	Solid	DI Leach	
MB 880-2565/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2565/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2565/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

HPLC/IC

Analysis Batch: 2642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-1	BH-1	Soluble	Solid	300.0	2562
890-600-2	BH-2	Soluble	Solid	300.0	2562
890-600-3	BH-3	Soluble	Solid	300.0	2562
890-600-4	BH-4	Soluble	Solid	300.0	2562
890-600-5	BH-5	Soluble	Solid	300.0	2562
890-600-6	BH-6	Soluble	Solid	300.0	2562
890-600-7	BH-7	Soluble	Solid	300.0	2562
890-600-8	BH-8	Soluble	Solid	300.0	2562
890-600-9	BH-9	Soluble	Solid	300.0	2562
890-600-10	BH-10	Soluble	Solid	300.0	2562
890-600-11	SW-1	Soluble	Solid	300.0	2562
890-600-12	SW-2	Soluble	Solid	300.0	2562
890-600-13	SW-3	Soluble	Solid	300.0	2562
890-600-14	SW-4	Soluble	Solid	300.0	2562
890-600-15	SW-5	Soluble	Solid	300.0	2562
MB 880-2562/1-A	Method Blank	Soluble	Solid	300.0	2562
LCS 880-2562/2-A	Lab Control Sample	Soluble	Solid	300.0	2562
LCSD 880-2562/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2562
890-600-6 MS	BH-6	Soluble	Solid	300.0	2562
890-600-6 MSD	BH-6	Soluble	Solid	300.0	2562

Analysis Batch: 2688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-600-16	SW-6	Soluble	Solid	300.0	2565
890-600-17	SW-7	Soluble	Solid	300.0	2565
890-600-18	SW-8	Soluble	Solid	300.0	2565
890-600-19	SW-9	Soluble	Solid	300.0	2565
890-600-20	SW-10	Soluble	Solid	300.0	2565
MB 880-2565/1-A	Method Blank	Soluble	Solid	300.0	2565
LCS 880-2565/2-A	Lab Control Sample	Soluble	Solid	300.0	2565
LCSD 880-2565/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2565

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-1

Lab Sample ID: 890-600-1

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 12:56	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/02/21 22:12	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/03/21 23:16	CH	XM

Client Sample ID: BH-2

Lab Sample ID: 890-600-2

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 13:16	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/02/21 23:16	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/03/21 23:21	CH	XM

Client Sample ID: BH-3

Lab Sample ID: 890-600-3

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 13:37	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/02/21 23:37	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/03/21 23:26	CH	XM

Client Sample ID: BH-4

Lab Sample ID: 890-600-4

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 13:57	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/02/21 23:58	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/03/21 23:32	CH	XM

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Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-5

Lab Sample ID: 890-600-5

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 14:17	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 00:19	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/03/21 23:37	CH	XM

Client Sample ID: BH-6

Lab Sample ID: 890-600-6

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 14:38	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 00:40	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/03/21 23:43	CH	XM

Client Sample ID: BH-7

Lab Sample ID: 890-600-7

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 14:58	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 01:01	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/03/21 23:59	CH	XM

Client Sample ID: BH-8

Lab Sample ID: 890-600-8

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 15:19	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 01:22	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:04	CH	XM

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Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: BH-9

Lab Sample ID: 890-600-9

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 15:39	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 01:43	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:20	CH	XM

Client Sample ID: BH-10

Lab Sample ID: 890-600-10

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 16:00	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 02:03	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:26	CH	XM

Client Sample ID: SW-1

Lab Sample ID: 890-600-11

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 17:22	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 02:46	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:31	CH	XM

Client Sample ID: SW-2

Lab Sample ID: 890-600-12

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 17:42	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 03:07	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:36	CH	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-3

Lab Sample ID: 890-600-13

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 18:03	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 03:28	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:42	CH	XM

Client Sample ID: SW-4

Lab Sample ID: 890-600-14

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 18:23	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 03:48	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:47	CH	XM

Client Sample ID: SW-5

Lab Sample ID: 890-600-15

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 18:43	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 04:09	AJ	XM
Soluble	Leach	DI Leach			2562	04/30/21 14:56	CH	XM
Soluble	Analysis	300.0		1	2642	05/04/21 00:52	CH	XM

Client Sample ID: SW-6

Lab Sample ID: 890-600-16

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 19:04	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 04:30	AJ	XM
Soluble	Leach	DI Leach			2565	04/30/21 15:02	CH	XM
Soluble	Analysis	300.0		1	2688	05/04/21 20:23	WP	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Client Sample ID: SW-7

Lab Sample ID: 890-600-17

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 19:24	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 04:51	AJ	XM
Soluble	Leach	DI Leach			2565	04/30/21 15:02	CH	XM
Soluble	Analysis	300.0		5	2688	05/04/21 20:28	WP	XM

Client Sample ID: SW-8

Lab Sample ID: 890-600-18

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 19:45	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 05:12	AJ	XM
Soluble	Leach	DI Leach			2565	04/30/21 15:02	CH	XM
Soluble	Analysis	300.0		1	2688	05/04/21 20:34	WP	XM

Client Sample ID: SW-9

Lab Sample ID: 890-600-19

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 20:05	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 05:33	AJ	XM
Soluble	Leach	DI Leach			2565	04/30/21 15:02	CH	XM
Soluble	Analysis	300.0		1	2688	05/04/21 20:39	WP	XM

Client Sample ID: SW-10

Lab Sample ID: 890-600-20

Date Collected: 04/27/21 00:00

Matrix: Solid

Date Received: 04/29/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2519	04/30/21 09:09	KL	XM
Total/NA	Analysis	8021B		1	2544	05/01/21 20:26	KL	XM
Total/NA	Prep	8015NM Prep			2554	04/30/21 14:29	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/03/21 05:54	AJ	XM
Soluble	Leach	DI Leach			2565	04/30/21 15:02	CH	XM
Soluble	Analysis	300.0		5	2688	05/04/21 20:44	WP	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB 12

Job ID: 890-600-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-600-1	BH-1	Solid	04/27/21 00:00	04/29/21 16:20	- 1
890-600-2	BH-2	Solid	04/27/21 00:00	04/29/21 16:20	- 2
890-600-3	BH-3	Solid	04/27/21 00:00	04/29/21 16:20	- 2
890-600-4	BH-4	Solid	04/27/21 00:00	04/29/21 16:20	- 3
890-600-5	BH-5	Solid	04/27/21 00:00	04/29/21 16:20	- 3
890-600-6	BH-6	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-7	BH-7	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-8	BH-8	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-9	BH-9	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-10	BH-10	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-11	SW-1	Solid	04/27/21 00:00	04/29/21 16:20	- 1
890-600-12	SW-2	Solid	04/27/21 00:00	04/29/21 16:20	- 1
890-600-13	SW-3	Solid	04/27/21 00:00	04/29/21 16:20	- 1
890-600-14	SW-4	Solid	04/27/21 00:00	04/29/21 16:20	- 2
890-600-15	SW-5	Solid	04/27/21 00:00	04/29/21 16:20	- 3
890-600-16	SW-6	Solid	04/27/21 00:00	04/29/21 16:20	- 2
890-600-17	SW-7	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-18	SW-8	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-19	SW-9	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5
890-600-20	SW-10	Solid	04/27/21 00:00	04/29/21 16:20	- 3.5

Analysis Request of Chain of Custody Record

Page 2 of 2



Tetra Tech, Inc.

501 W. Wall Street, Suite 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Client Name:

EOG Resources

Site Manager:

Brittany Long

Project Name:

Red Hills North Unit TB 12

Project #:

212C-MD-02398

(county, state)

Lea County, NM

Invoice to:

Todd Wells - EOG

Receiving Laboratory:

Xenco/Eurofins

Sampler Signature:

Comments:

LAB #

SAMPLE IDENTIFICATION

SAMPLING

YEAR: 2020

DATE

TIME

MATRIX

PRESERVATIVE METHOD

WATER

SOIL

HCL

HNO₃

ICE

None

CONTAINERS

FILTERED (Y/N)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

Hold

ANALYSIS REQUEST

(Circle or Specify Method No.)

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

LAB USE ONLY

REMARKS:

STANDARD

Sample Temperature

Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #

ORIGINAL COPY

Eurofins Xenco, Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



eurofins
Environment Testing
America

Client Information (Sub Contract Lab)						Sampler	Lab PM	Carrier Tracking No(s)	COC No.							
Client Contact:			Shipping/Receiving			Phone:	Kramer Jessica		890-192 1							
Company			Eurofins Xenco			E-Mail	jessica.kramer@eurofinset.com	State of Origin	Page: Page 1 of 3							
Address			1211 W Florida Ave			Accreditations Required (See note) NELAP - Louisiana NELAP - Texas			Job #: 890-600-1							
City			Midland			Due Date Requested. 5/4/2021			Preservation Codes							
State Zip:			TX. 79701			TAT Requested (days)			A HCL B NaOH C - Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H - Ascorbic Acid I Ice J DI Water K EDTA L EDA Other-							
Phone			432-704-5440(Tel)			PO #:			M Hexane N None O AsNaO2 P Na2O4S Q Na2SO3 R Na2S2O3 S H2SO4 T TSP Dodecylhydrate U Acetone V MCAA W pH 4-5 Z other (specify)							
Email						WO #:										
Project Name			Red Hills North Unit TB 12			Project #:										
Site:			SSOV#:			Field Filtered Sample (Yes or No)										
Sample Identification - Client ID (Lab ID)						Sample Date	Sample Time	Sample Type (C=comp, G=grab), BT/Tissue, A=Air	Matrix (W=water, S=solid, O=overhead)	Field MS/MSD (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFDM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH GRO-DRO-MRO	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
BH-1 (890-600-1)						4/27/21	Mountain		Solid	X	X	X			1	
BH-2 (890-600-2)						4/27/21	Mountain		Solid	X	X	X			1	
BH-3 (890-600-3)						4/27/21	Mountain		Solid	X	X	X			1	
BH-4 (890-600-4)						4/27/21	Mountain		Solid	X	X	X			1	
BH-5 (890-600-5)						4/27/21	Mountain		Solid	X	X	X			1	
BH-6 (890-600-6)						4/27/21	Mountain		Solid	X	X	X			1	
BH-7 (890-600-7)						4/27/21	Mountain		Solid	X	X	X			1	
BH-8 (890-600-8)						4/27/21	Mountain		Solid	X	X	X			1	
BH-9 (890-600-9)						4/27/21	Mountain		Solid	X	X	X			1	

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysts/testmatrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.

Possible Hazard Identification

Unconfirmed

Deliverable Requested I II III IV Other (specify)

Primary Deliverable Rank 2

Special Instructions/QC Requirements.

Return To Client

Disposal By Lab

Archive For Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Empty Kit Relinquished by

Date

Time

Method of Shipment:

Relinquished by

Date/Time

Company

Received by

Date/Time

Company

Relinquished by

Date/Time

Company

Received by

Date/Time

Company

Cooler Temperature(s) °C and Other Remarks

Custody Seals Intact.

Custody Seal No

Δ Yes Δ No

Eurofins Xenco, Carlsbad

1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



eurofins

Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-600-1

SDG Number: Lea County NM

Login Number: 600

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-600-1

SDG Number: Lea County NM

Login Number: 600

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 04/30/21 02:11 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-644-1

Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Red Hills North Unit TB12

For:

Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Attn: Clair Gonzales

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
5/11/2021 3:53:21 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Laboratory Job ID: 890-644-1
SDG: Lea County NM

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Job ID: 890-644-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

**Job Narrative
890-644-1****Receipt**

The samples were received on 5/7/2021 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SW-6 (2') (890-644-1), SW-7 (3.5') (890-644-2), SW-8 (3.5') (890-644-3), SW-10 (3.5') (890-644-4), BH-11 (3.5') (890-644-5) and BH-12 (3.5') (890-644-6).

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Client Sample ID: SW-6 (2')

Lab Sample ID: 890-644-1

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 17:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 17:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 17:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 17:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 17:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 17:19	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	05/07/21 12:00	05/07/21 17:19	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/07/21 12:00	05/07/21 17:19	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 18:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 18:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 18:13	1
Total TPH	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	05/07/21 14:52	05/07/21 18:13	1
o-Terphenyl	88		70 - 130	05/07/21 14:52	05/07/21 18:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.8		5.00		mg/Kg			05/10/21 16:26	1

Client Sample ID: SW-7 (3.5')

Lab Sample ID: 890-644-2

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 17:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 17:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 17:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/07/21 12:00	05/07/21 17:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 17:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/07/21 12:00	05/07/21 17:39	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/07/21 12:00	05/07/21 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	05/07/21 12:00	05/07/21 17:39	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/07/21 12:00	05/07/21 17:39	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:34	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Client Sample ID: SW-7 (3.5')

Lab Sample ID: 890-644-2

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:34	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:34	1
Total TPH	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				05/07/21 14:52	05/07/21 18:34	1
o-Terphenyl	96		70 - 130				05/07/21 14:52	05/07/21 18:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.4		5.00		mg/Kg			05/10/21 16:31	1

Client Sample ID: SW-8 (3.5')

Lab Sample ID: 890-644-3

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 18:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 18:00	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 18:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				05/07/21 12:00	05/07/21 18:00	1
1,4-Difluorobenzene (Surr)	97		70 - 130				05/07/21 12:00	05/07/21 18:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:55	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:55	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:55	1
Total TPH	<49.8	U	49.8		mg/Kg		05/07/21 14:52	05/07/21 18:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130				05/07/21 14:52	05/07/21 18:55	1
o-Terphenyl	92		70 - 130				05/07/21 14:52	05/07/21 18:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.9		4.95		mg/Kg			05/10/21 16:37	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Client Sample ID: SW-10 (3.5')

Lab Sample ID: 890-644-4

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/07/21 12:00	05/07/21 18:20	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/07/21 12:00	05/07/21 18:20	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/07/21 12:00	05/07/21 18:20	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/07/21 12:00	05/07/21 18:20	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/07/21 12:00	05/07/21 18:20	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/07/21 12:00	05/07/21 18:20	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/07/21 12:00	05/07/21 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	05/07/21 12:00	05/07/21 18:20	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/07/21 12:00	05/07/21 18:20	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:15	1
Total TPH	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	05/07/21 14:52	05/07/21 19:15	1
o-Terphenyl	98		70 - 130	05/07/21 14:52	05/07/21 19:15	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.3		5.02		mg/Kg			05/10/21 16:53	1

Client Sample ID: BH-11 (3.5')

Lab Sample ID: 890-644-5

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 18:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/07/21 12:00	05/07/21 18:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 18:41	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/07/21 12:00	05/07/21 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	05/07/21 12:00	05/07/21 18:41	1
1,4-Difluorobenzene (Surr)	94		70 - 130	05/07/21 12:00	05/07/21 18:41	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:36	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Client Sample ID: BH-11 (3.5')

Lab Sample ID: 890-644-5

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:36	1
Total TPH	<49.9	U	49.9		mg/Kg		05/07/21 14:52	05/07/21 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				05/07/21 14:52	05/07/21 19:36	1
o-Terphenyl	98		70 - 130				05/07/21 14:52	05/07/21 19:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.6		4.96		mg/Kg			05/10/21 17:31	1

Client Sample ID: BH-12 (3.5')

Lab Sample ID: 890-644-6

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 19:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 19:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 19:01	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/07/21 12:00	05/07/21 19:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/21 12:00	05/07/21 19:01	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/07/21 12:00	05/07/21 19:01	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/07/21 12:00	05/07/21 19:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				05/07/21 12:00	05/07/21 19:01	1
1,4-Difluorobenzene (Surr)	96		70 - 130				05/07/21 12:00	05/07/21 19:01	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 19:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 19:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 19:57	1
Total TPH	<50.0	U	50.0		mg/Kg		05/07/21 14:52	05/07/21 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				05/07/21 14:52	05/07/21 19:57	1
o-Terphenyl	95		70 - 130				05/07/21 14:52	05/07/21 19:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.3		4.97		mg/Kg			05/10/21 17:36	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-644-1	SW-6 (2')	101	95
890-644-2	SW-7 (3.5')	92	98
890-644-3	SW-8 (3.5')	92	97
890-644-4	SW-10 (3.5')	90	96
890-644-5	BH-11 (3.5')	92	94
890-644-6	BH-12 (3.5')	90	96
LCS 880-2829/1-A	Lab Control Sample	110	100
LCSD 880-2829/2-A	Lab Control Sample Dup	107	105
MB 880-2829/5-A	Method Blank	84	94
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-644-1	SW-6 (2')	79	88
890-644-2	SW-7 (3.5')	85	96
890-644-3	SW-8 (3.5')	83	92
890-644-4	SW-10 (3.5')	88	98
890-644-5	BH-11 (3.5')	88	98
890-644-6	BH-12 (3.5')	85	95
LCS 880-2794/2-A	Lab Control Sample	97	102
LCSD 880-2794/3-A	Lab Control Sample Dup	105	111
MB 880-2794/1-A	Method Blank	91	101
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2829/5-A

Matrix: Solid

Analysis Batch: 2835

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/21 11:08	05/07/21 16:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/21 11:08	05/07/21 16:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/21 11:08	05/07/21 16:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/07/21 11:08	05/07/21 16:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/21 11:08	05/07/21 16:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/07/21 11:08	05/07/21 16:37	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/07/21 11:08	05/07/21 16:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	05/07/21 11:08	05/07/21 16:37	1
1,4-Difluorobenzene (Surr)	94		70 - 130	05/07/21 11:08	05/07/21 16:37	1

Lab Sample ID: LCS 880-2829/1-A

Matrix: Solid

Analysis Batch: 2835

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09587		mg/Kg		96	70 - 130
Toluene	0.100	0.09388		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09893		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2118		mg/Kg		106	70 - 130
o-Xylene	0.100	0.1056		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-2829/2-A

Matrix: Solid

Analysis Batch: 2835

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2829

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1026		mg/Kg		103	70 - 130	7	35
Toluene	0.100	0.09895		mg/Kg		99	70 - 130	5	35
Ethylbenzene	0.100	0.1040		mg/Kg		104	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2231		mg/Kg		112	70 - 130	5	35
o-Xylene	0.100	0.1112		mg/Kg		111	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-2794/1-A

Matrix: Solid

Analysis Batch: 2814

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/06/21 16:52	05/07/21 11:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/06/21 16:52	05/07/21 11:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/06/21 16:52	05/07/21 11:15	1
Total TPH	<50.0	U	50.0		mg/Kg		05/06/21 16:52	05/07/21 11:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	05/06/21 16:52	05/07/21 11:15	1
o-Terphenyl	101		70 - 130	05/06/21 16:52	05/07/21 11:15	1

Lab Sample ID: LCS 880-2794/2-A

Matrix: Solid

Analysis Batch: 2814

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	925.4		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1044		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-2794/3-A

Matrix: Solid

Analysis Batch: 2814

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2794

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1018		mg/Kg		102	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	1000	1135		mg/Kg		113	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	111		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2847/1-A

Matrix: Solid

Analysis Batch: 2895

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/10/21 15:05	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-2847/2-A

Matrix: Solid

Analysis Batch: 2895

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	237.6		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-2847/3-A

Matrix: Solid

Analysis Batch: 2895

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	239.0		mg/Kg		96	90 - 110	1	20

Lab Sample ID: 890-644-3 MS

Matrix: Solid

Analysis Batch: 2895

Client Sample ID: SW-8 (3.5')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	18.9		248	251.4		mg/Kg		94	90 - 110		

Lab Sample ID: 890-644-3 MSD

Matrix: Solid

Analysis Batch: 2895

Client Sample ID: SW-8 (3.5')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	18.9		248	252.8		mg/Kg		94	90 - 110	1	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

GC VOA

Prep Batch: 2829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-644-1	SW-6 (2')	Total/NA	Solid	5035	
890-644-2	SW-7 (3.5')	Total/NA	Solid	5035	
890-644-3	SW-8 (3.5')	Total/NA	Solid	5035	
890-644-4	SW-10 (3.5')	Total/NA	Solid	5035	
890-644-5	BH-11 (3.5')	Total/NA	Solid	5035	
890-644-6	BH-12 (3.5')	Total/NA	Solid	5035	
MB 880-2829/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2829/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2829/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 2835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-644-1	SW-6 (2')	Total/NA	Solid	8021B	2829
890-644-2	SW-7 (3.5')	Total/NA	Solid	8021B	2829
890-644-3	SW-8 (3.5')	Total/NA	Solid	8021B	2829
890-644-4	SW-10 (3.5')	Total/NA	Solid	8021B	2829
890-644-5	BH-11 (3.5')	Total/NA	Solid	8021B	2829
890-644-6	BH-12 (3.5')	Total/NA	Solid	8021B	2829
MB 880-2829/5-A	Method Blank	Total/NA	Solid	8021B	2829
LCS 880-2829/1-A	Lab Control Sample	Total/NA	Solid	8021B	2829
LCSD 880-2829/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2829

GC Semi VOA

Prep Batch: 2794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-644-1	SW-6 (2')	Total/NA	Solid	8015NM Prep	
890-644-2	SW-7 (3.5')	Total/NA	Solid	8015NM Prep	
890-644-3	SW-8 (3.5')	Total/NA	Solid	8015NM Prep	
890-644-4	SW-10 (3.5')	Total/NA	Solid	8015NM Prep	
890-644-5	BH-11 (3.5')	Total/NA	Solid	8015NM Prep	
890-644-6	BH-12 (3.5')	Total/NA	Solid	8015NM Prep	
MB 880-2794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-644-1	SW-6 (2')	Total/NA	Solid	8015B NM	2794
890-644-2	SW-7 (3.5')	Total/NA	Solid	8015B NM	2794
890-644-3	SW-8 (3.5')	Total/NA	Solid	8015B NM	2794
890-644-4	SW-10 (3.5')	Total/NA	Solid	8015B NM	2794
890-644-5	BH-11 (3.5')	Total/NA	Solid	8015B NM	2794
890-644-6	BH-12 (3.5')	Total/NA	Solid	8015B NM	2794
MB 880-2794/1-A	Method Blank	Total/NA	Solid	8015B NM	2794
LCS 880-2794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2794
LCSD 880-2794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2794

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 2847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-644-1	SW-6 (2')	Soluble	Solid	DI Leach	
890-644-2	SW-7 (3.5')	Soluble	Solid	DI Leach	
890-644-3	SW-8 (3.5')	Soluble	Solid	DI Leach	
890-644-4	SW-10 (3.5')	Soluble	Solid	DI Leach	
890-644-5	BH-11 (3.5')	Soluble	Solid	DI Leach	
890-644-6	BH-12 (3.5')	Soluble	Solid	DI Leach	
MB 880-2847/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2847/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2847/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-644-3 MS	SW-8 (3.5')	Soluble	Solid	DI Leach	
890-644-3 MSD	SW-8 (3.5')	Soluble	Solid	DI Leach	

Analysis Batch: 2895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-644-1	SW-6 (2')	Soluble	Solid	300.0	2847
890-644-2	SW-7 (3.5')	Soluble	Solid	300.0	2847
890-644-3	SW-8 (3.5')	Soluble	Solid	300.0	2847
890-644-4	SW-10 (3.5')	Soluble	Solid	300.0	2847
890-644-5	BH-11 (3.5')	Soluble	Solid	300.0	2847
890-644-6	BH-12 (3.5')	Soluble	Solid	300.0	2847
MB 880-2847/1-A	Method Blank	Soluble	Solid	300.0	2847
LCS 880-2847/2-A	Lab Control Sample	Soluble	Solid	300.0	2847
LCSD 880-2847/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2847
890-644-3 MS	SW-8 (3.5')	Soluble	Solid	300.0	2847
890-644-3 MSD	SW-8 (3.5')	Soluble	Solid	300.0	2847

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Client Sample ID: SW-6 (2')

Lab Sample ID: 890-644-1

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2829	05/07/21 12:00	KL	XM
Total/NA	Analysis	8021B		1	2835	05/07/21 17:19	KL	XM
Total/NA	Prep	8015NM Prep			2794	05/07/21 14:52	DM	XM
Total/NA	Analysis	8015B NM		1	2814	05/07/21 18:13	AJ	XM
Soluble	Leach	DI Leach			2847	05/07/21 15:32	CH	XM
Soluble	Analysis	300.0		1	2895	05/10/21 16:26	WP	XM

Client Sample ID: SW-7 (3.5')

Lab Sample ID: 890-644-2

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2829	05/07/21 12:00	KL	XM
Total/NA	Analysis	8021B		1	2835	05/07/21 17:39	KL	XM
Total/NA	Prep	8015NM Prep			2794	05/07/21 14:52	DM	XM
Total/NA	Analysis	8015B NM		1	2814	05/07/21 18:34	AJ	XM
Soluble	Leach	DI Leach			2847	05/07/21 15:32	CH	XM
Soluble	Analysis	300.0		1	2895	05/10/21 16:31	WP	XM

Client Sample ID: SW-8 (3.5')

Lab Sample ID: 890-644-3

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2829	05/07/21 12:00	KL	XM
Total/NA	Analysis	8021B		1	2835	05/07/21 18:00	KL	XM
Total/NA	Prep	8015NM Prep			2794	05/07/21 14:52	DM	XM
Total/NA	Analysis	8015B NM		1	2814	05/07/21 18:55	AJ	XM
Soluble	Leach	DI Leach			2847	05/07/21 15:32	CH	XM
Soluble	Analysis	300.0		1	2895	05/10/21 16:37	WP	XM

Client Sample ID: SW-10 (3.5')

Lab Sample ID: 890-644-4

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2829	05/07/21 12:00	KL	XM
Total/NA	Analysis	8021B		1	2835	05/07/21 18:20	KL	XM
Total/NA	Prep	8015NM Prep			2794	05/07/21 14:52	DM	XM
Total/NA	Analysis	8015B NM		1	2814	05/07/21 19:15	AJ	XM
Soluble	Leach	DI Leach			2847	05/07/21 15:32	CH	XM
Soluble	Analysis	300.0		1	2895	05/10/21 16:53	WP	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Client Sample ID: BH-11 (3.5')

Lab Sample ID: 890-644-5

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2829	05/07/21 12:00	KL	XM
Total/NA	Analysis	8021B		1	2835	05/07/21 18:41	KL	XM
Total/NA	Prep	8015NM Prep			2794	05/07/21 14:52	DM	XM
Total/NA	Analysis	8015B NM		1	2814	05/07/21 19:36	AJ	XM
Soluble	Leach	DI Leach			2847	05/07/21 15:32	CH	XM
Soluble	Analysis	300.0		1	2895	05/10/21 17:31	WP	XM

Client Sample ID: BH-12 (3.5')

Lab Sample ID: 890-644-6

Date Collected: 05/06/21 00:00

Matrix: Solid

Date Received: 05/07/21 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2829	05/07/21 12:00	KL	XM
Total/NA	Analysis	8021B		1	2835	05/07/21 19:01	KL	XM
Total/NA	Prep	8015NM Prep			2794	05/07/21 14:52	DM	XM
Total/NA	Analysis	8015B NM		1	2814	05/07/21 19:57	AJ	XM
Soluble	Leach	DI Leach			2847	05/07/21 15:32	CH	XM
Soluble	Analysis	300.0		1	2895	05/10/21 17:36	WP	XM

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XM
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XM
300.0	Anions, Ion Chromatography	MCAWW	XM
5035	Closed System Purge and Trap	SW846	XM
8015NM Prep	Microextraction	SW846	XM
DI Leach	Deionized Water Leaching Procedure	ASTM	XM

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Red Hills North Unit TB12

Job ID: 890-644-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-644-1	SW-6 (2')	Solid	05/06/21 00:00	05/07/21 09:05	
890-644-2	SW-7 (3.5')	Solid	05/06/21 00:00	05/07/21 09:05	
890-644-3	SW-8 (3.5')	Solid	05/06/21 00:00	05/07/21 09:05	
890-644-4	SW-10 (3.5')	Solid	05/06/21 00:00	05/07/21 09:05	
890-644-5	BH-11 (3.5')	Solid	05/06/21 00:00	05/07/21 09:05	
890-644-6	BH-12 (3.5')	Solid	05/06/21 00:00	05/07/21 09:05	

Analysis Request of Custody Record



Tetra Tech, Inc.

5015 West Street, Ste. 100
Midland, Texas 79705
Tel (432) 662-4559 Fax

890-644 Chain of Custody



Page 1 of 1

Client Name: EOG Resources		Site Manager: Brittany Long	
Project Name: Red Hills North Unit TB12		Project #: 212C-MD-02398	
Project Location: Lea County, N.M.			
Invoice to: Todd Wens, EOG			
Receiving Laboratory: Xenox, Eurofins		Sampler Signature: <i>Eurofins</i>	
Comments:			

LAB #	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			
	SW-6 (2')	5/6/21			X			X		X
	SW-7 (3.5')									
	SW-8 (3.5')									
	SW-10 (3.5')									
	BH-11 (3.5')									
	BH-12 (3.5')									

Relinquished by: <i>Eurofins</i>	Date: _____ Time: _____	Received by: <i>EOG</i>	Date: 5.7.21 Time: 9:05
Relinquished by:	Date: _____ Time: _____	Received by:	Date: _____ Time: _____
Relinquished by:	Date: _____ Time: _____	Received by:	Date: _____ Time: _____

LAB USE ONLY	REMARKS:	☐ STANDARD ☒ Same Day 24 hr (40 hr 72 hr) ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report

BTEX 8021B BTEX 8260B TPH TX1005 (Ext to C35) TPH 8015M (GRO - DRO - ORO - MRO) PAH 8270C Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles RCI GC/MS Vol. 8260B / 624 GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM PLM (Asbestos) Chloride Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance
--

1.8/1.6

Eurofins Xenco, Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

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Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-644-1

SDG Number: Lea County NM

Login Number: 644

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-644-1

SDG Number: Lea County NM

Login Number: 644

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 05/07/21 02:53 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Robert Hamlet Date: 11/3/2021

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

Closure Approved by: Robert Hamlet Date: 11/3/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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 39473

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 39473
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2101551338 RHNU TANK BATTERY 12, thank you. This closure is approved.	11/3/2021