

Incident ID	NRM2001060253
District RP	
Facility ID	
Application ID	

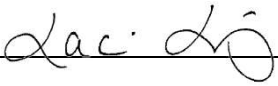
Closure

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: Laci Luig Title: Environmental Specialist
Signature:  Date: _____
email: Laci.Luig@Coterra.com Telephone: (432) 208-3035

OCD Only

Received by: Chad Hensley Date: 02/21/2022

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: 02/21/2022
Printed Name: Chad Hensley Title: Environmental Specialist Advanced

SITE INFORMATION

Report Type: Closure Report nRM2001060253

General Site Information:

Site:	Hallertau 5 Fed #4					
Company:	Cimarex Energy					
Section, Township and Range	Unit M	Sec. 05	T 26S	R 32E		
Lease Number:						
County:	Lea County					
GPS:	32.06508° N			-103.68667° W		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From the intersection of HWY 128 & CR 1 (J-1) travel south on 1 for 10.42 miles. Turn right onto lease road, follow for 0.69 miles to location.					

Release Data:

Date Released:	11/12/2019
Type Release:	Produced Water
Source of Contamination:	Failed Weld
Fluid Released:	200 bbls
Fluids Recovered:	120 bbls

Official Communication:

Name:	Laci Luig		Brittany Long
Company:	Cimarex Energy		Tetra Tech
Address:	600 N. Marienfield St.		901 W. Wall St.
	Ste 600		Ste 100
City:	Midland Texas, 79701		Midland, Texas, 79701
Phone number:	(432) 208-3035		(432) 741-5813
Fax:			
Email:	Laci.Luig@Coterra.com		Brittany.Long@TetraTech.com

Site Characterization

Depth to Groundwater:	>55' Below Surface
Karst Potential:	Medium

Recommended Remedial Action Levels (RRALs)

Benzene	Total BTEX	TPH (GRO+DRO)	TPH (GRO+DRO+MRO)	Chlorides
10 mg/kg	50 mg/kg	1,000 mg/kg	2,500 mg/kg	10,000 mg/kg



January 25, 2022

Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Re: Closure Report for the Cimarex Energy, Hallertau 5 Fed #4, Unit M, Section 05, Township 26 South, Range 32 East, Lea County, New Mexico. NRM2001060253

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by Cimarex Energy to assess and remediate a release that occurred at the Hallertau 5 Fed #4, Unit M, Section 05, Township 26 South, Range 32 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.06508°, W 103.68667°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 12, 2019, due to a weld failure on a 4" poly transfer line. A total of 200 barrels of produced water was released, and approximately 120 barrels of the produced water were recovered. The release impacted an area measuring approximately 190'x 100'. The C-141 Form is 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, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. However, the site is in a medium karst potential area.

The nearest well is listed in the USGS National Water Information Database website in Section 06, approximately 1.95 miles from of the site, and has a reported depth to groundwater of 155 feet below ground surface. Site characterization data is included in Appendix B.

Tetra Tech

901 West Wall, Suite 100, Midland, TX 79701

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



Depth to Water Determination

On December 21, 2021, Scarborough Drilling, Inc was onsite to a drill a groundwater determination borehole to 55' below ground surface and within a ½ mile radius of the location. The borehole was left open for 72 hours and checked for the presence of groundwater. No water was detected in the borehole at 55' below surface. The borehole coordinates are 32.0656322, -103.6901477. The driller log and borehole figure is shown in Appendix B.

Regulatory

A risk-based evaluation was performed for the site following 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 on the site characterization, beyond the top 4.0' of soil, the proposed RRAL for TPH is 1,000 mg/kg (GRO+DRO) and 2,500 mg/kg (GRO+DRO+MRO). Additionally, based on the site characterization, beyond the top 4.0' of soil, the proposed RRAL for chlorides is 10,000 mg/kg.

Soil Assessment and Remediation Activities

2019 Soil Assessment

On November 20, 2019, Tetra Tech personnel were on site to evaluate and sample the release area. Three trenches (Trench-1 through Trench-3) were installed to a depth of 4.0' below surface in the spill area to assess and define the extents of the release. Initial response and remediation took place in these areas based on field screening and lab results of trenches (Trench-1 through Trench-3). Select samples were submitted to PBE Laboratory and analyzed chloride by EPA method 300.0 due to the only constituent of concern being chlorides. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The sample locations are shown in Figure 3.

Referring to Table 1, chloride concentrations above RRALs were detected in the areas of trenches (Trench-1 through Trench-3), at depths of 4.0' below surface, with concentrations ranging from 12,300 mg/kg to 28,000 mg/kg.

2019 Initial Response and Remediation

Based on the site assessment, Tetra Tech personnel were onsite November 21, 2019, to supervise the initial response and remediation activities and collect sidewall samples. The impacted areas were excavated to total depths ranging from 2.0' to 4.0' below surface. The excavation depths and sample locations are shown on Figure 3.



A total of fifteen (15) sidewall samples (E1' SW, E1 SW, E2 SW, N1' SW, N1 SW, N2 SW, N3 SW, W1' SW, W1 SW, W2 SW, W3 SW) were collected to assess the remedial area. The samples were submitted to the PBE laboratory to be analyzed for Chloride by EPA Method 300.0. The sampling results are summarized in Table 2. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The excavation depths and sample locations are shown in Figure 3.

Referring to Table 2, the sidewalls (N1 SW and W1' SW) showed chloride concentrations above the 600 mg/kg threshold. The remaining sidewalls (E1' SW through E2 SW, N1' SW, N2 SW, N3 SW, and W1 SW through W3 SW) showed chloride concentrations below the 600 mg/kg threshold.

July 2021 Soil Assessment

On July 27, 2021, Tetra Tech personnel were onsite to evaluate, sample, and field screen the remediated area, to collect current and representative data. Bottom hole and sidewall samples were collected every 200 square feet throughout the remediation and field screened for chlorides with an ExStick. Field screening results showed current chloride concentrations above RRALs throughout the remediated area, and initiated further remediation activities. The field screening concentrations and locations are shown in Appendix C.

August 2021 Remediation and Sampling Activities

Based on the site assessment, initial response activities, and data, Tetra Tech personnel were onsite August 24, 2021, August 26, 2021, and August 31, 2021 to supervise portions of the additional remediation activities and collect confirmation samples. Cimarex personnel conducted and supervised the entire remediation, impacted areas were excavated to total depths ranging from 3.0' to 20.0' below surface. The excavation area and depths are shown on Figure 4.

Confirmation bottom hole and sidewall samples were collected every 200 square feet and field screened. Based on field screening concentrations, Cimarex chose to submit select samples to determine if false chloride concentrations were being detected by field screening equipment. The bottom hole samples (BH-3 and BH-4) and sidewall samples (SW-5, SW-7, SW-10, and SW-12) were submitted to the Eurofins Laboratories to be analyzed for TPH method 8015 modified, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are summarized in Table 3. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The excavation depths and sample locations are shown in Figure 4.

Referring to Table 3, all confirmation samples collected showed benzene, total BTEX, and TPH concentrations below the laboratory reporting limits. However, the sidewall samples (SW-7, SW-10, and SW-12) showed chloride concentrations above RRALs.



December 2021 Remediation and Sampling Activities

Based on the August remediation activities, data, and the OCD and BLM approved work plan that was submitted on October 4, 2021, Cimarex extended the excavation from 4.0' to 30.0' below surface to ensure proper removal of the remaining impact. Tetra Tech personnel were onsite December 21, 2021 to collect confirmation samples. The excavation area and depths are shown on Figure 5.

Confirmation bottom hole and sidewall samples were collected every 200 square feet, a total of forty-five (45) bottom hole confirmation samples (BH-1 through BH-45) and forty-three (43) sidewall confirmation samples (SW-1 through SW-43). Additionally, sidewalls (SW-10 through SW-17) were installed in the top 4.0' of soil of the 30.0' sloped area to show that sidewalls were remediated to the full extent necessary. All samples were submitted to the Eurofins Laboratories to be analyzed for TPH method 8015 modified, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are summarized in Table 4. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The excavation depths and sample locations are shown in Figure 5.

Referring to Table 4, all confirmation samples collected showed benzene, total BTEX, TPH, and chloride concentrations below the determined RRALs. Additionally, all samples collected in the top 4.0' of soil reported chloride concentrations below the 600 mg/kg threshold.

Approximately 5,480 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

Conclusion

Based on the laboratory results, remediation activities performed, Cimarex 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

A handwritten signature in blue ink, appearing to read 'Brittany Long'.

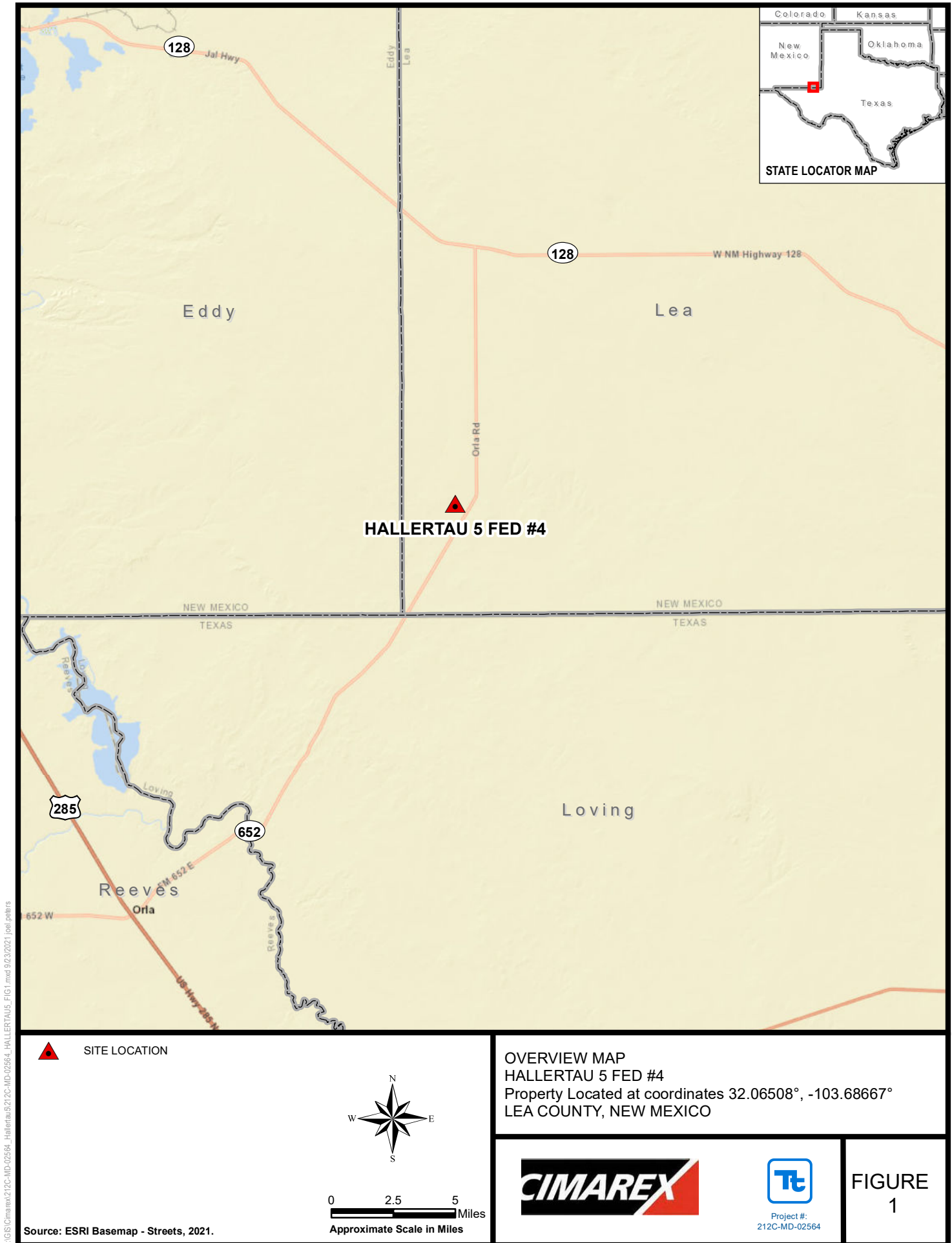
Brittany Long,
Project Manager

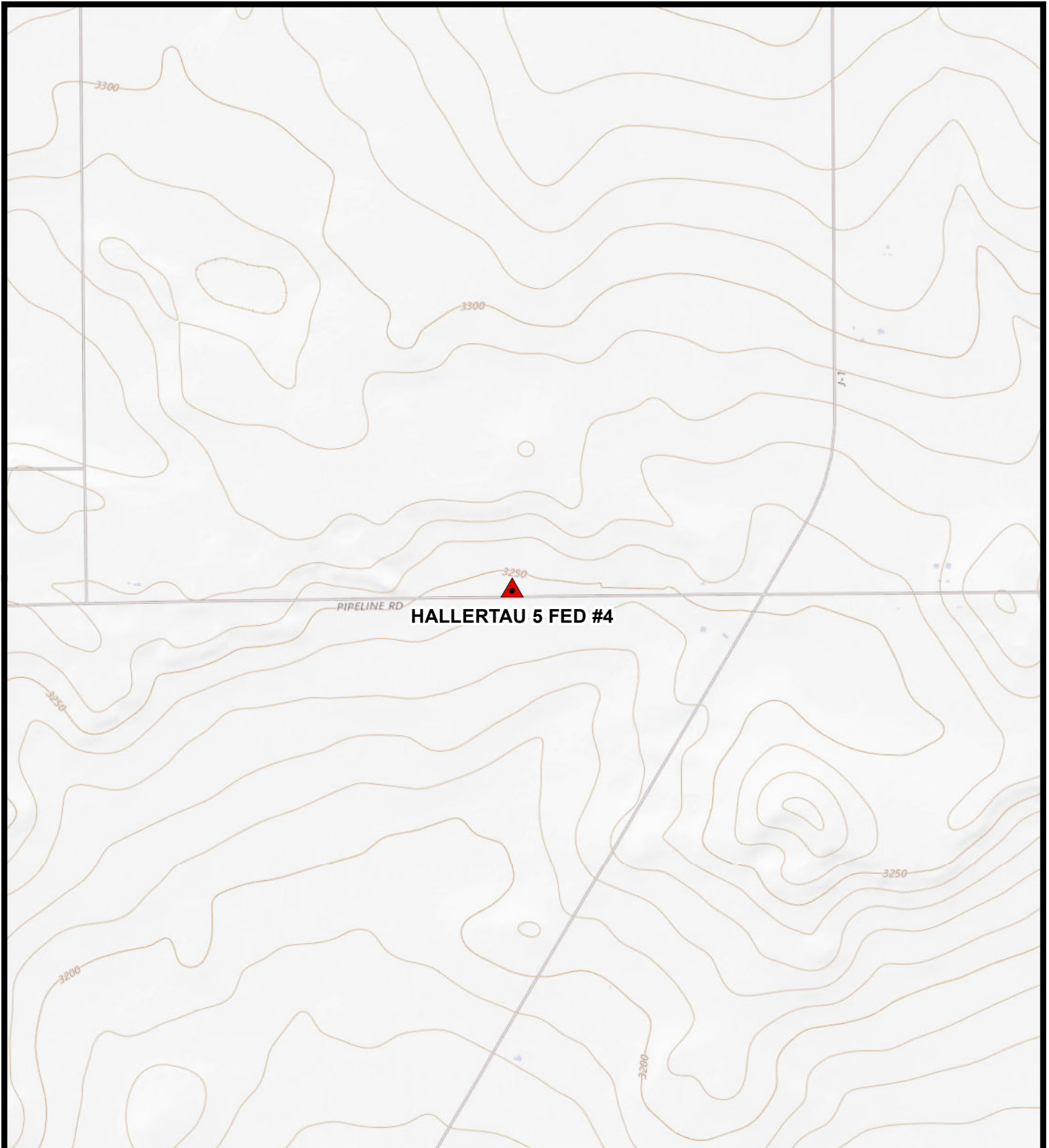
A handwritten signature in blue ink, appearing to read 'Clair Gonzales'.

Clair Gonzales,
Senior Project Manager



Figures





 SITE LOCATION



0 1,000 2,000 Feet
Approximate Scale in Feet

TOPOGRAPHIC MAP
HALLERTAU 5 FED #4
Property Located at coordinates 32.06508°, -103.68667°
LEA COUNTY, NEW MEXICO

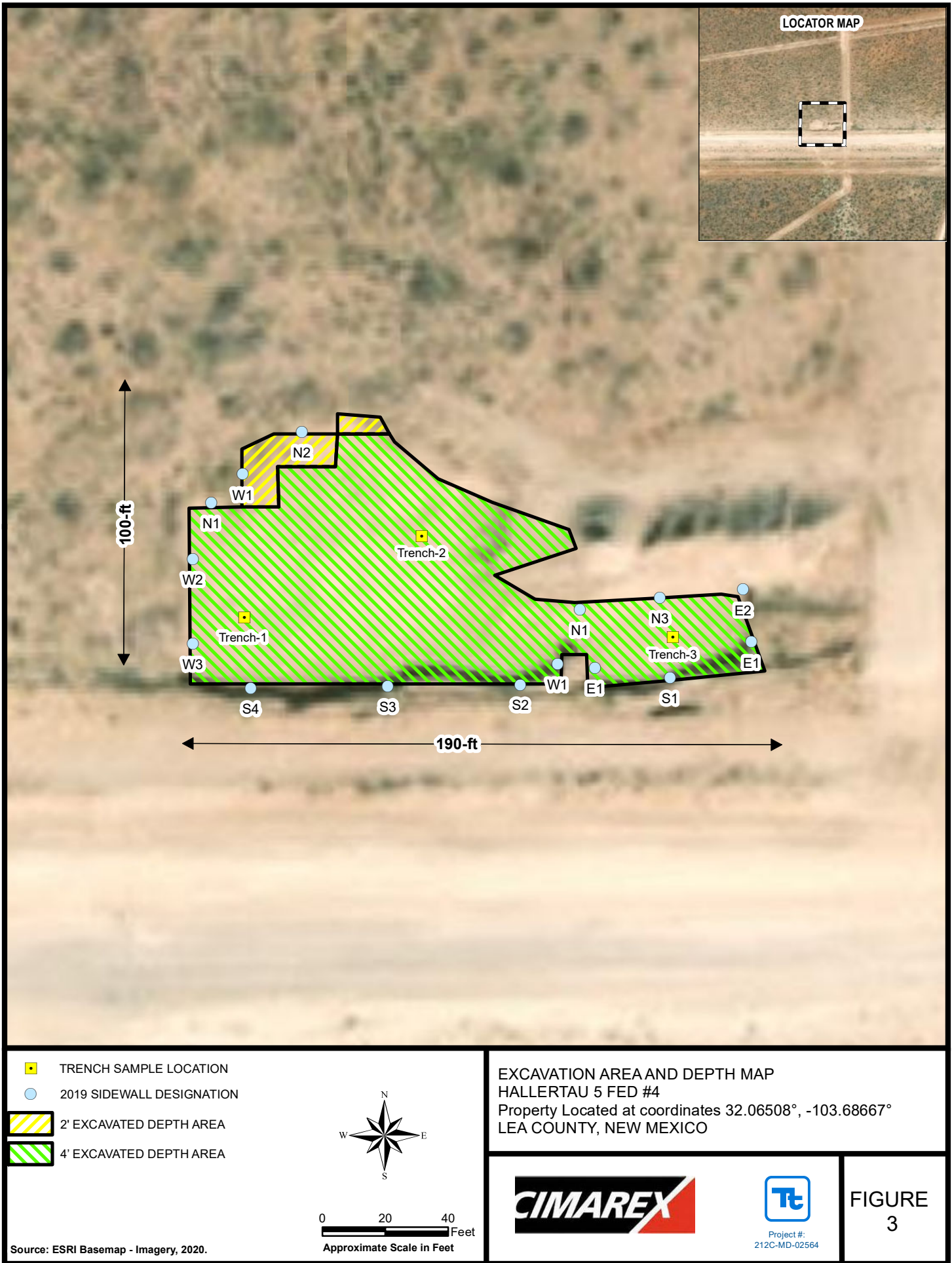


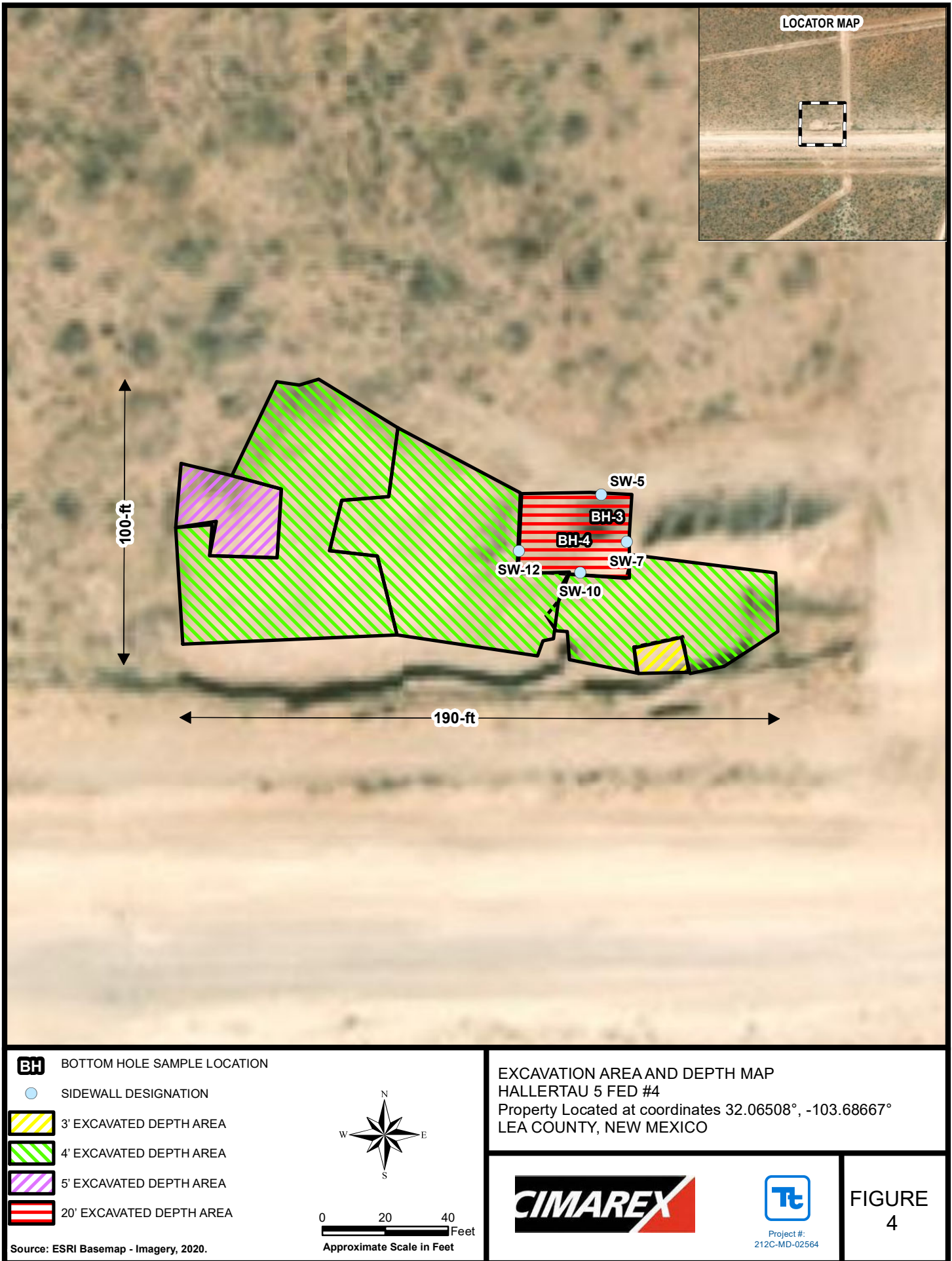
Project #:
212C-MD-02564

FIGURE
2

Source: USGS, The National Map,
Topo Base, 2021.

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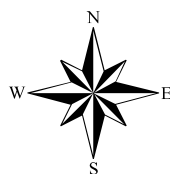




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- ▲ SIDEWALL SAMPLE LOCATIONS
- BH BOTTOMHOLE SAMPLE LOCATIONS
- ACCESS RAMP AREA
- 4' EXCAVATED DEPTH
- 4.5' EXCAVATED DEPTH
- 30' EXCAVATED DEPTH
- 0-30' DEPTH SLOPE



0 30 60
Feet
Approximate Scale

EXCAVATION AREA & DEPTH MAP

HALLERTAU 5 FED #4

Property located at coordinates 32.06508°, -103.68667°
LEA COUNTY, NEW MEXICO



Project #:
212C-MD-02564

FIGURE

4



Tables

Table 1
Cimarex
Hallertau 5 Fed #4
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
			In-Situ	Removed	
Background Trench	11/20/2019	1'	X		6.02
	"	2'	X		11.1
	"	3'	X		152
	"	4'	X		11.0
Trench 1	11/20/2019	4'		X	12,300
Trench 2	11/20/2019	4'		X	28,000
Trench 3	11/20/2019	4'		X	16,700

Table 2
Cimarex
Hallertau 5 Fed #4
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
			In-Situ	Removed	
E1' SW	11/21/2019	-	X		60.1
E1 SW	"	-	X		17.0
E2 SW	"	-	X		71.1
N1' SW	11/21/2019	-	X		83.5
N1 SW	"	-		X	6,480
N2 SW	"	-	X		6.37
N3 SW	"	-	X		15.2
W1' SW	11/21/2019	-		X	831
W1 SW	"	-	X		48.7
W2 SW	"	-	X		73.4
W3 SW	"	-	X		54.3

Table 3
Cimarex Energy
Hallertau 5 Fed #4
Lea County, New Mexico

Sample ID	Sample Date	Sample 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						
Bottom Hole-3	8/31/2021	20'		X	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	807
Bottom Hole-4	8/31/2021	20'		X	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	2250
Sidewall-5	8/31/2021	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	343
Sidewall-7	8/31/2021	-		X	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	4350
Sidewall-10	8/31/2021	-		X	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	4340
Sidewall-12	8/31/2021	-		X	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	6020

(-)

Not Analyzed

Exceedances



Table 4
Cimarex Energy
Hallertau 5 Fed #4
Lea County, New Mexico

Sample ID	Sample Date	Sample 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	12/21/2021	4.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	171
BH-2	12/21/2021	4.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	226
BH-3	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	0.00212	<0.00199	<0.00199	<0.00398	<0.00398	156
BH-4	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	126
BH-5	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	133
BH-6	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	159
BH-7	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	149
BH-8	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	391
BH-9	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	270
BH-10	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	294
BH-11	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	295
BH-12	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	316
BH-13	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	314
BH-14	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	377
BH-15	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	272
BH-16	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	356
BH-17	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	322
BH-18	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	275
BH-19	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	272
BH-20	12/21/2021	4.5	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,470
BH-21	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	1,660
BH-22	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,500
BH-23	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,590

Table 4
Cimarex Energy
Hallertau 5 Fed #4
Lea County, New Mexico

Sample ID	Sample Date	Sample 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-24	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,760
BH-25	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,640
BH-26	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	1,590
BH-27	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,530
BH-28	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,570
BH-29	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,720
BH-30	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	0.00895	0.00895	119
BH-31	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	0.00238	0.0112	0.0135	125
BH-32	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	0.0120	0.0120	116
BH-33	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	0.0106	0.0106	127
BH-34	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	0.00757	0.00757	128
BH-35	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	0.00839	0.00839	111
BH-36	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	0.0125	0.0125	116
BH-37	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	0.00241	0.0134	0.0158	138
BH-38	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	0.0107	0.0107	117
BH-39	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	260
BH-40	12/21/2021	30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	0.00800	0.00800	258
BH-41	12/21/2021	30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	1,480
BH-42	12/21/2021	30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,540
BH-43	12/21/2021	30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	12.9
BH-44	12/21/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	57.0
BH-45	12/21/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	63.4
SW-1	12/21/2021	0-4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	16.7
SW-2	12/21/2021	0-4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	15.9
SW-3	12/21/2021	0-4	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	16.3
SW-4	12/21/2021	0-4	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	17.7
SW-5	12/21/2021	0-4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	19.7

Table 4
Cimarex Energy
Hallertau 5 Fed #4
Lea County, New Mexico

Sample ID	Sample Date	Sample 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-6	12/21/2021	0-4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	19.8
SW-7	12/21/2021	0-4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	22.3
SW-8	12/21/2021	0-4.5	X	-	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	18.8
SW-9	12/21/2021	0-4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	18.5
SW-10	12/21/2021	0-4	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	18.5
SW-11	12/21/2021	0-4	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	18.7
SW-12	12/21/2021	0-4	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	19.4
SW-13	12/21/2021	0-4	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	37.1
SW-14	12/21/2021	0-4	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	33.1
SW-15	12/21/2021	0-4	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	84.6
SW-16	12/21/2021	0-4	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	96.8
SW-17	12/21/2021	0-4	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	91.2
SW-18	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	81.1
SW-19	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	89.0
SW-20	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	82.3
SW-21	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	2,480
SW-22	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	2,640
SW-23	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	0.00255	<0.00199	<0.00398	<0.00398	2,630
SW-24	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	2,590
SW-25	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	2,610
SW-26	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	2,550
SW-27	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	2,640
SW-28	12/21/2021	4.0-30.0	X	-	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	2,590
SW-29	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	2,410
SW-30	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	1,270
SW-31	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	731
SW-32	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,250

Table 4
Cimarex Energy
Hallertau 5 Fed #4
Lea County, New Mexico

Sample ID	Sample Date	Sample 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-33	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,420
SW-34	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,450
SW-35	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	1,190
SW-36	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,730
SW-37	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,710
SW-38	12/21/2021	4.0-30.0	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	1,750
SW-39	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,670
SW-40	12/21/2021	4.0-30.0	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,620
SW-41	12/21/2021	0-4.5	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	18.0
SW-42	12/21/2021	0-4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	71.2
SW-43	12/21/2021	0-4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	11.1

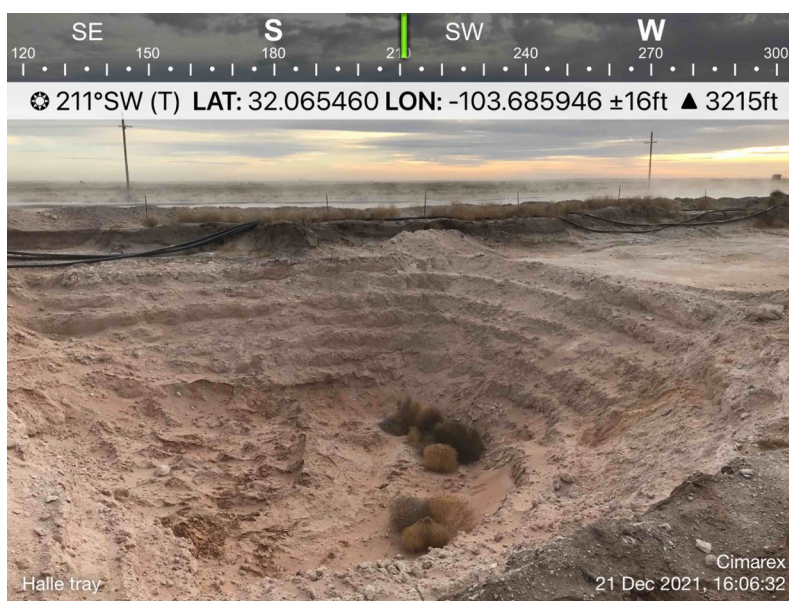


Photographic Documentation

Cimarex Energy
Hallertau 5 Fed #4
Lea County, New Mexico

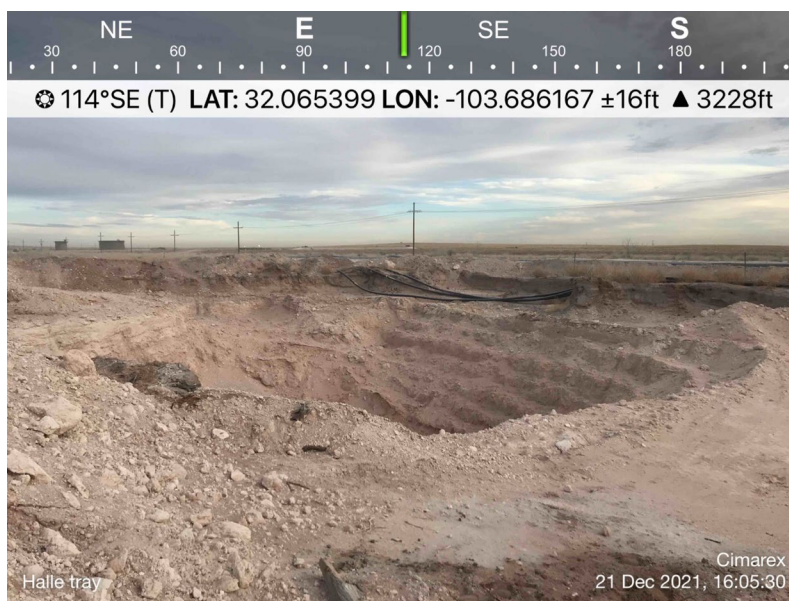


View of Remediation Activities – View West

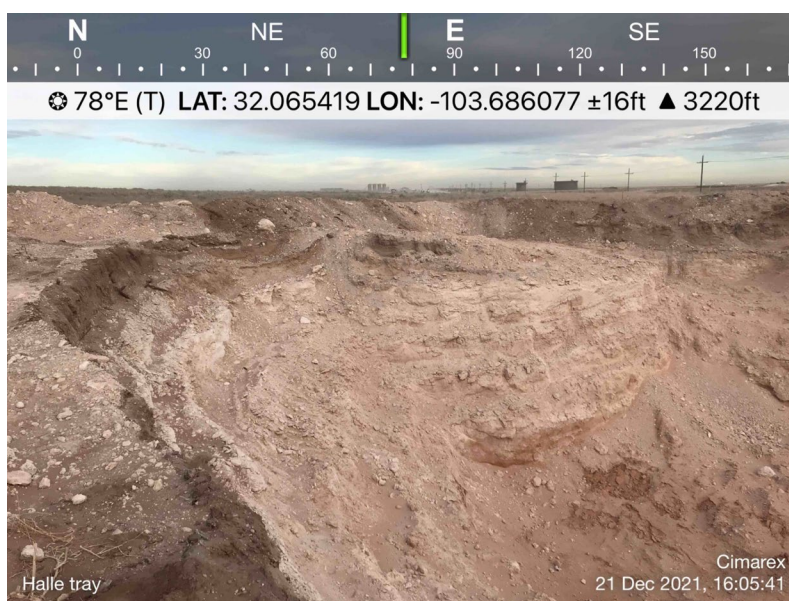


View of Remediation Activities – View Southwest

Cimarex Energy
Hallertau 5 Fed #4
Lea County, New Mexico



View of Remediation Activities – View Southeast



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	NRM2001060253
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Cimorex Energy	OGRID 162683
Contact Name Christine Alderman	Contact Telephone 432-853-7059
Contact email calderman@cimorex.com	Incident # (assigned by OCD)
Contact mailing address 600 N Marienfeld Ste 60, Midland, TX 79701	

Location of Release Source

Latitude 32.06508 Longitude -103.68667
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Hallertau 5 Fed #4	Site Type production battery
Date Release Discovered 11/12/2019	API# (if applicable) 30-025-40254

Unit Letter	Section	Township	Range	County
M	05	26S	32E	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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 200 bbls	Volume Recovered (bbls) 120 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

The 4" poly transfer line had parted at a weld.

A vacuum truck recovered 120 bbls of produced water. The impacted area measured on the north 200' x 12' x 6" along the lease road, and measured approximately 177' x 22' x 6" into the pasture.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2001060253
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? Volume was >25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes. 11/13/2019 @ 3:54 pm to Amos, Horn, Griswold, and District 1 spill email Christine Alderman	

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>Christine Alderman</u>	Title: <u>ESH Supervisor</u>
Signature: <u>Christine Alderman</u>	Date: <u>11/18/2019</u>
email: <u>calderman@cimarex.com</u>	Telephone: <u>432-853-7059</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of spill: Hallertau 5 Federal #4

Date of Spill: 11/12/2019

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box,
flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☐

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0000 BBL WATER: 200.0000 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations					Standing Liquid Calculations				
Total Surface Area	width	length	wet soil depth	oil (%)	Standing Liquid Area	width	length	liquid depth	oil (%)
Rectangle Area #1	200 ft X	12 ft X	6 in	0%	Rectangle Area #1	0 ft X	0 ft X	0 in	0%
Rectangle Area #2	177 ft X	22 ft X	6 in	0%	Rectangle Area #2	0 ft X	0 ft X	0 in	0%
Rectangle Area #3	0 ft X	0 ft X	0 in	0%	Rectangle Area #3	0 ft X	0 ft X	0 in	0%
Rectangle Area #4	0 ft X	0 ft X	0 in	0%	Rectangle Area #4	0 ft X	0 ft X	0 in	0%
Rectangle Area #5	0 ft X	0 ft X	0 in	0%	Rectangle Area #5	0 ft X	0 ft X	0 in	0%
Rectangle Area #6	0 ft X	0 ft X	0 in	0%	Rectangle Area #6	0 ft X	0 ft X	0 in	0%
Rectangle Area #7	0 ft X	0 ft X	0 in	0%	Rectangle Area #7	0 ft X	0 ft X	0 in	0%
Rectangle Area #8	0 ft X	0 ft X	0 in	0%	Rectangle Area #8	0 ft X	0 ft X	0 in	0%

okay

Production Data NOT Required

Average Daily Production: Oil 0 BBL Water 0 BBL

Did leak occur before the separator?: ☐ YES ☐ N/A (place an "X")

Amount of Free Liquid Recovered: 120 BBL ERROR - Recovered volume greater than spilled volume

Percentage of Oil in Free Liquid Recovered: 0% (percentage)

Liquid holding factor *: 0.14 gal per gal

Use the following when the spill wets the grains of the soil.

- * sand = .08 gallon liquid per gallon volume of soil.
- * gravelly (caliche) loam = .14 gallon liquid per gallon volume of soil.
- * sandy clay loam soil = .14 gallon liquid per gallon volume of soil.
- * clay loam = .16 gallon liquid per gallon volume of soil.

Use the following when the liquid completely fills the pore space of the soil:

- Occurs when the spill soaked soil is contained by barriers, natural (or not).
- * gravelly (caliche) loam = .25 gallon liquid per gallon volume of soil.
- * sandy loam = .5 gallon liquid per gallon volume of soil.

Saturated Soil Volume Calculations:

Total Solid/Liquid Volume: 6,294 sq. ft. 3,147 cu. ft. OIL cu. ft.

Estimated Volumes Spilled

Liquid in Soil: 78.5 BBL 0.0 BBL
Free Liquid: 0.0 BBL 0.0 BBL
Totals: 78.465 BBL 0.000 BBL

Total Liquid Spill Liquid: 200.000 BBL 0.000 BBL

Recovered Volumes

Estimated oil recovered: 0.0 BBL check - okay
Estimated water recovered: 120.0 BBL check - okay

Free Liquid Volume Calculations:

Total Free Liquid Volume: sq. ft. .000 cu. ft. OIL cu. ft.

Estimated Production Volumes Lost

Estimated Production Spilled: ##### BBL 0.000000 BBL

Estimated Surface Damage

Surface Area: 6,294 sq. ft.
Surface Area: .1445 acre

Estimated Weights, and Volumes

Saturated Soil = 352,464 lbs 3,147 cu.ft. 117 cu.yds.
Total Liquid = 200 BBL 8,400.00 gallon 69,888 lbs

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	
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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: *[Signature]* Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

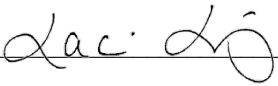
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled 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:  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



Borehole ID:
GWDB

Soil Drilling Log

Project Name : Hallertau 5 Fed #4
Project No. : 212C-MD-02564
Location : Lea County, New Mexico
Coordinates : 32.0656322, -103.6901477
Elevation : N/A

Date : Tuesday, December 21, 2021
Sampler : Zeke Moreno
Driller : Scarborough Drilling
Method : Air Rotary

Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	Field Titration Test (ppm)	Depth (ft.)	WL	Soil Description	Chloride Field Test (ppm)	Field Titration Test (ppm)
0		CALICHE, some sand, coarse, light tan to white, dry, no odor, no staining.	150ppm		50		fine SAND, well sorted, rounded, light tan, no moisture, no odor, no staining.		
		SAND with caliche, well sorted, well rounded, light tan, no moisture, no odor, no staining.	112ppm						
		"	72ppm		55		"		
5		fine SAND with some caliche (<20%), light tan, well sorted, well rounded, no moisture, no odor, no staining	41ppm						
			73ppm						
10		fine SAND, well sorted, rounded, light tan, no moisture, no odor, no staining.	44ppm		60		Total Depth = 55'		
15		"			65				
20		"			70				
25		"			75				
30		fine SAND with some caliche pockets, well sorted and rounded sand grains, light tan, dry, no odor, no staining.			80				
35		fine SAND, well sorted, rounded, light tan, no moisture, no odor, no staining.			85				
40		"			90				
45		"			95				
50					100				

* H.O. = Heavy Odor

* H.S. = Heavy Staining

* L.O. = Low Odor

* L.S. = Low Staining

Groundwater Determination Bore Figure

Cimarex Energy
Hallertau 5 Fed #4

Legend

 0.5 Mile Radius

 32.06508, -103.68667 Cimarex Hallertau 5 Fed #4

 GWDB



2000 ft



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	Tw	Rng	X	Y
NA	C 04209 POD1	2	3	3	06	26S	32E	620903	3548619 

Driller License:	1706	Driller Company:	ELITE DRILLERS CORPORATION						
Driller Name:	BRYCE WALLACE								
Drill Start Date:	04/28/2018	Drill Finish Date:	05/01/2018			Plug Date:			
Log File Date:	05/21/2018	PCW Rcv Date:				Source:	Shallow		
Pump Type:		Pipe Discharge Size:				Estimated Yield:	25 GPM		
Casing Size:	6.00	Depth Well:	360 feet			Depth Water:	155 feet		

Water Bearing Stratifications:		Top	Bottom	Description
		15	350	Sandstone/Gravel/Conglomerate

Casing Perforations:		Top	Bottom
		200	360

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

9/8/21 10:11 PM

POINT OF DIVERSION SUMMARY



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater

Geographic Area: New Mexico

GO

Click to hideNews Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#) 

Groundwater levels for New Mexico

Click to hide state-specific text

 Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320134103384101

Minimum number of levels = 1

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

USGS 320134103384101 26S.32E.21.32311

Lea County, New Mexico

Latitude 32°01'35.2", Longitude 103°41'01.8" NAD83

Land-surface elevation 3,130 feet above NAVD88

The depth of the well is 405 feet below land surface.

The depth of the hole is 405 feet below land surface.

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Dockum Group (231DCKM) 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 measu
1993-06-16		D	62610		2723.41	NGVD29	1	L		
1993-06-16		D	62611		2725.00	NAVD88	1	L		
1993-06-16		D	72019	405.00			1	L		
2013-01-16	19:10 UTC	m	62610		2906.47	NGVD29	3	S	USGS	
2013-01-16	19:10 UTC	m	62611		2908.06	NAVD88	3	S	USGS	
2013-01-16	19:10 UTC	m	72019	221.94			3	S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet

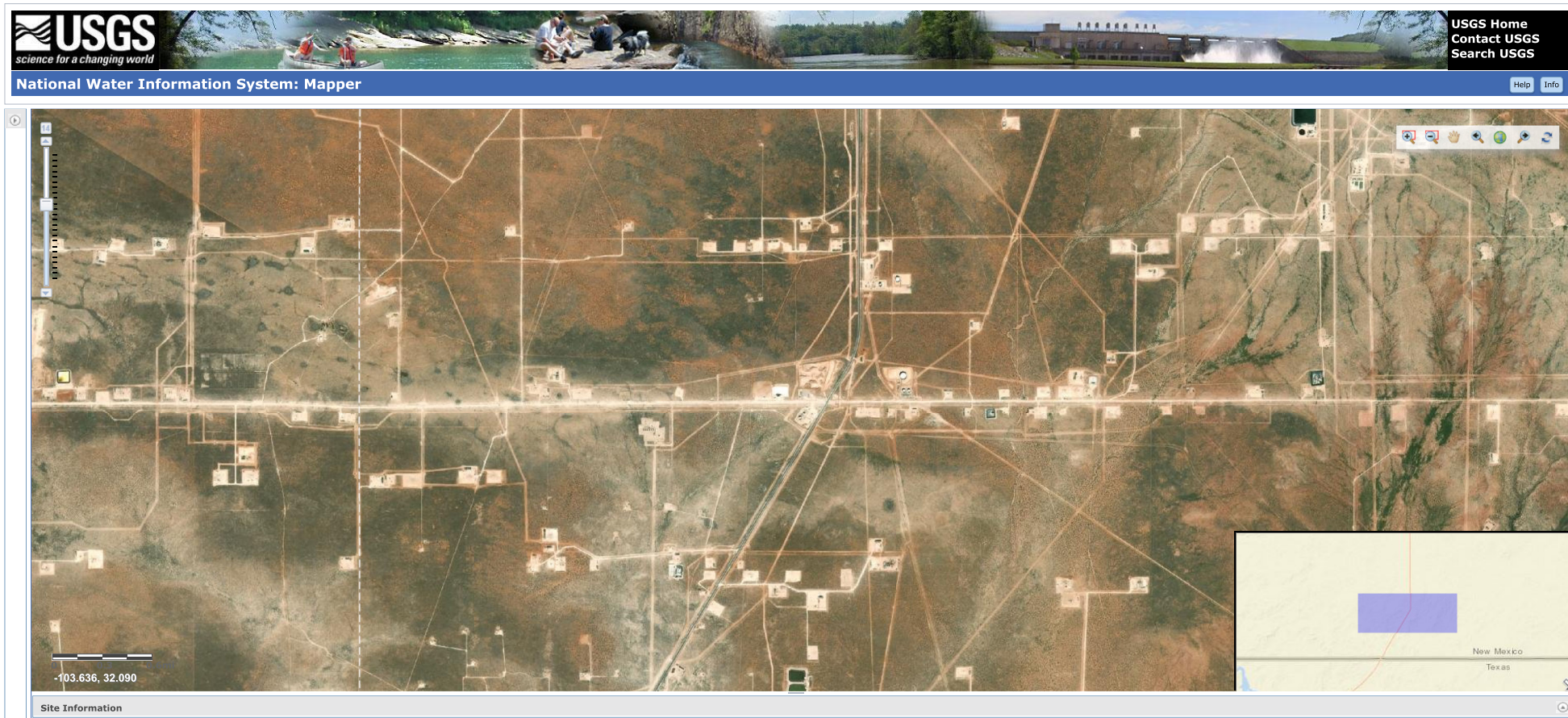
9/8/21, 11:08 PM

Section	Code	Description
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	3	True value is above reported value due to local conditions
Method of measurement	L	Interpreted from geophysical logs.
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

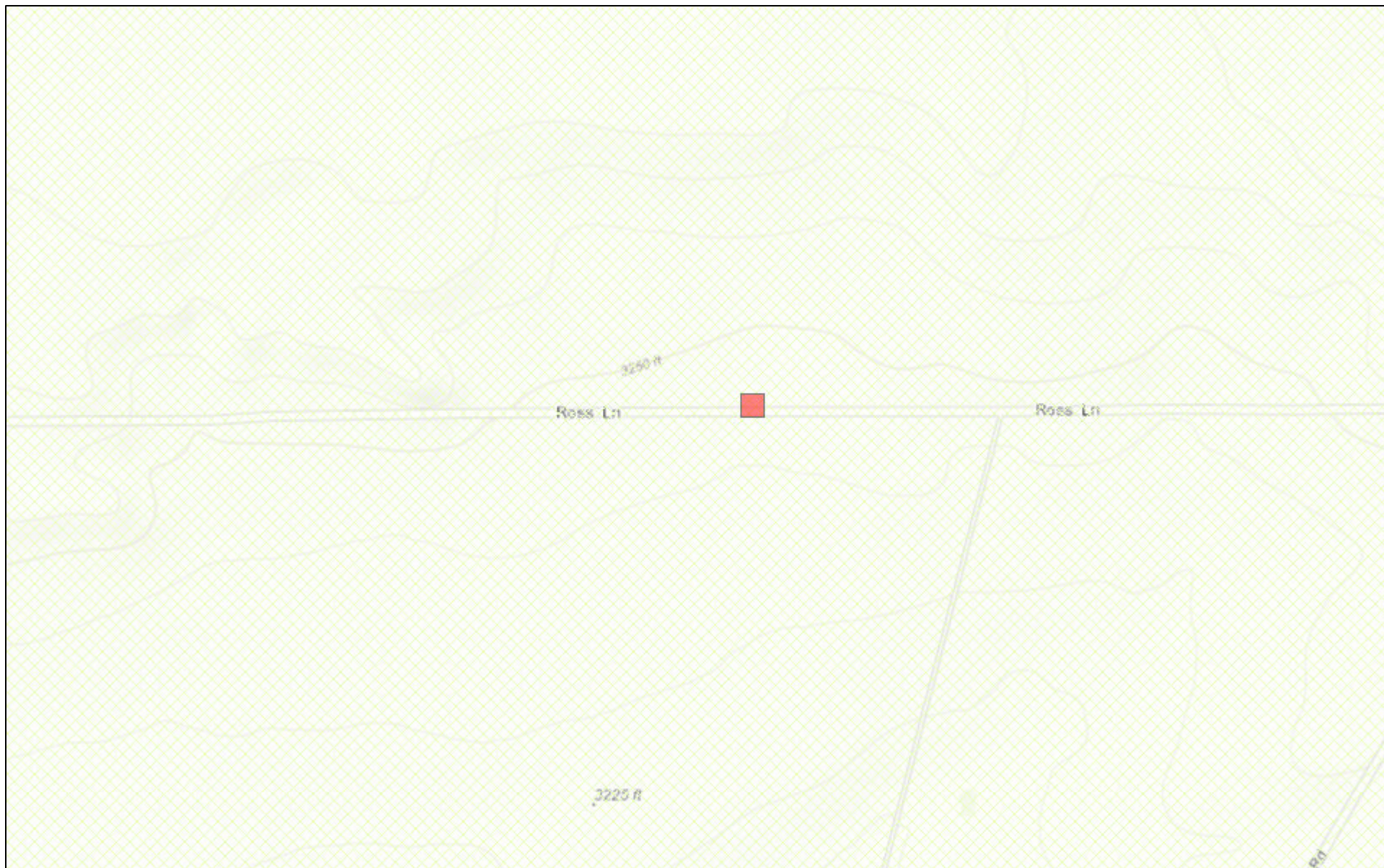
[Questions about sites/data?](#)[Feedback on this web site](#)[Automated retrievals](#)[Help](#)[Data Tips](#)[Explanation of terms](#)[Subscribe for system changes](#)[News](#)[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)**Title: Groundwater for New Mexico: Water Levels****URL: [https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?](https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?site_no=320134103384101&agency_cd=USGS&format=html)**Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2021-09-09 00:04:08 EDT

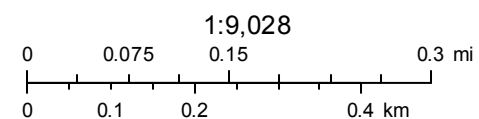
0.3 0.26 nadww01



New Mexico NFHL Data



September 23, 2021



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

Medium Karst
Simarex Energy
Hallertau 5 Fed #4

Legend

-  32.06508, -103.68667
-  High
-  Low
-  Medium

Released to Imaging: 2/21/2022 11:27:27 AM

Received by OCD: 1/28/2022 9:08:56 AM

 32.06508, -103.68667

Water Well Data
Average Depth to Groundwater (ft)
Cimarex Hallertau 5 Fed #4
Lea County, New Mexico

25 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 390	22	23	24
30	29	28 290	27	26	25
31	32	33	34	35	36

26 South			31 East		
6	5	4	3	2	1 335
7	8 295	9	10	11	12 287
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	32 290	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	24
30	29	28 180	27	26	25
31	32 295	33	34	35	36

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

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

Field Data

Sample ID	Salinity (ppm/*ppt)	Notes
Bottom Hole		
1	89.3	
2	160	
3	109	
4	8.75*	
5	2.77*	
6	2.23*	
7	3.22*	
8	198	
9	141	
10	225	
11	6.44*	
12	1.66*	
13	253	
14	Over limit >10,000	Two Readings Taken
15	130	
16	6.27*	
17	101	
18	56.9	
19	55.5	
20	163	
21	91	
22	458	
23	966	
24	142	
25	8.36*	
26	732	
27	103	
28	97	
Sidewall Samples		
1	243	
2	10.80*	
3	175	
4	9.10*	
5	9.98*	
6	68.4	
7	39.2	
8	35.6	
9	55.9	
10	38.4	
11	27.7	
14	31.9	
17	24.1	
20	89.1	
21	35.9	
24	25.4	

Sample ID	Salinity (ppm/*ppt)	Notes
25	43.4	
26	91.8	
27	20.4	
28	35.8	
32	5.68*	
33	4.01*	
36	4.25*	

Notes: * Concentration in ppt

Sample Location Map

Imarex Energy
Hallertau Pipeline Release

Legend

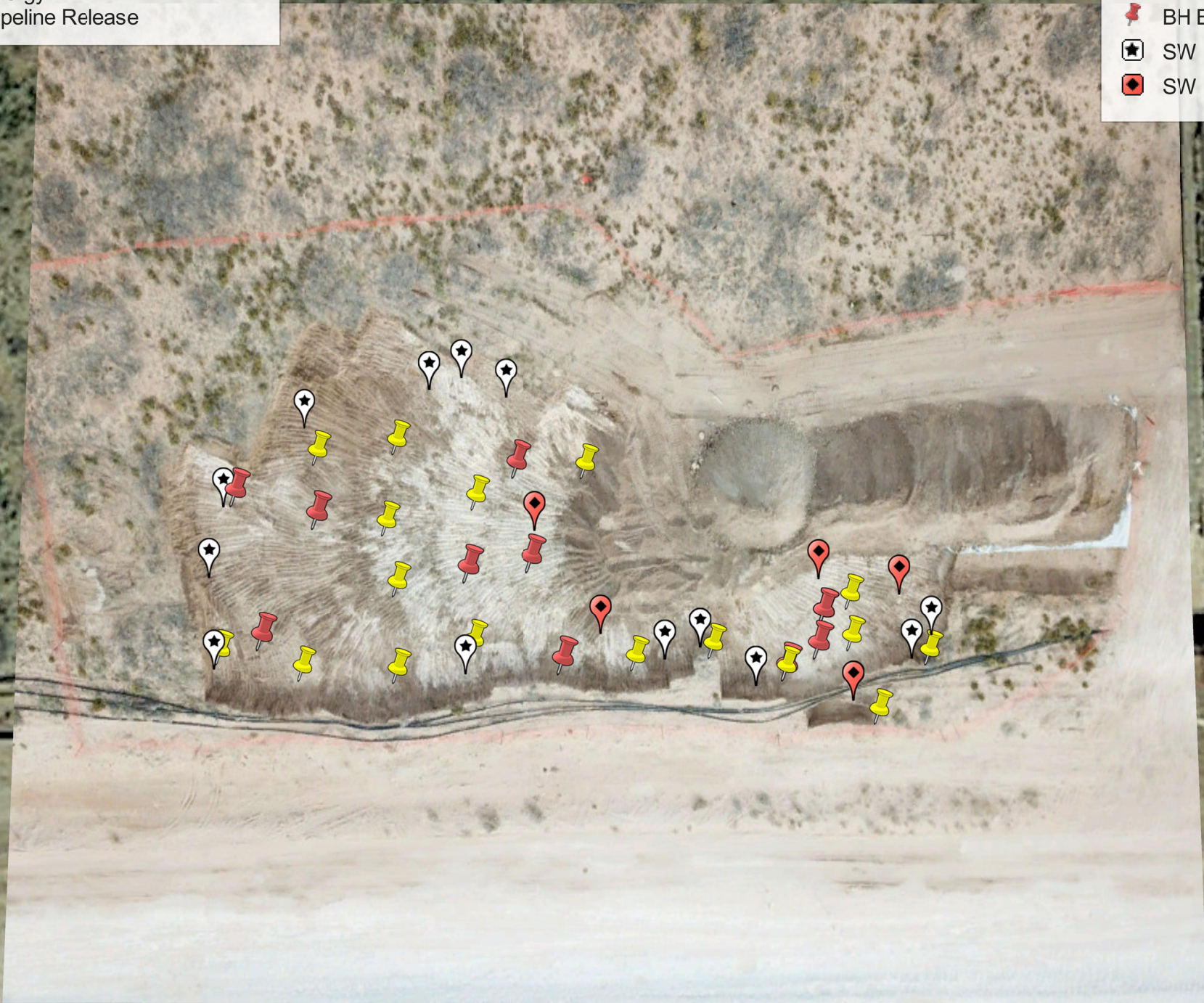
 BH Below RRAL

 BH Exceeding RRAL

 SW Below RRAL

 SW Exceeding RRAL

Received by OCD: 1/28/2022 9:08:56 AM





Appendix D

Laboratory Reports

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

John Kell
Tetra Tech
901 W Wall Street, Ste 100
Midland, TX 79705

Project: Hallertau Flowline Release

Project Number: Pending

Location: Lea County, NM

Lab Order Number: 9K20016



NELAP/TCEQ # T104704516-17-8

Report Date: 11/22/19

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG Trench @ 1'	9K20016-01	Soil	11/20/19 00:00	11-20-2019 16:22
BG Trench @ 2'	9K20016-02	Soil	11/20/19 00:00	11-20-2019 16:22
BG Trench @ 3'	9K20016-03	Soil	11/20/19 00:00	11-20-2019 16:22
BG Trench @ 4'	9K20016-04	Soil	11/20/19 00:00	11-20-2019 16:22
T-1 @ 4'	9K20016-05	Soil	11/20/19 00:00	11-20-2019 16:22
T-2 @ 4'	9K20016-06	Soil	11/20/19 00:00	11-20-2019 16:22
T-3 @ 4'	9K20016-07	Soil	11/20/19 00:00	11-20-2019 16:22

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

BG Trench @ 1'**9K20016-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.**General Chemistry Parameters by EPA / Standard Methods**

Chloride	6.02	1.06	mg/kg dry	1	P9K2111	11/21/19	11/22/19	EPA 300.0
% Moisture	6.0	0.1	%	1	P9K2101	11/21/19	11/21/19	ASTM D2216

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

BG Trench @ 2'
9K20016-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	11.1	1.04	mg/kg dry	1	P9K2111	11/21/19	11/22/19	EPA 300.0
% Moisture	4.0	0.1	%	1	P9K2101	11/21/19	11/21/19	ASTM D2216

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

BG Trench @ 3'
9K20016-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	152	1.04	mg/kg dry	1	P9K2111	11/21/19	11/22/19	EPA 300.0
% Moisture	4.0	0.1	%	1	P9K2101	11/21/19	11/21/19	ASTM D2216

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech 901 W Wall Street, Ste 100 Midland TX, 79705	Project: Hallertau Flowline Release Project Number: Pending Project Manager: John Kell	Fax: (432) 686-8085
---	--	---------------------

BG Trench @ 4'
9K20016-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	11.0	1.05	mg/kg dry	1	P9K2111	11/21/19	11/22/19	EPA 300.0	
% Moisture	5.0	0.1	%	1	P9K2101	11/21/19	11/21/19	ASTM D2216	

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

T-1 @ 4'
9K20016-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	12300	57.5	mg/kg dry	50	P9K2111	11/21/19	11/22/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9K2101	11/21/19	11/21/19	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

T-2 @ 4'
9K20016-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	28000	58.8	mg/kg dry	50	P9K2111	11/21/19	11/22/19	EPA 300.0	
% Moisture	15.0	0.1	%	1	P9K2101	11/21/19	11/21/19	ASTM D2216	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

T-3 @ 4'
9K20016-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	16700	60.2	mg/kg dry	50	P9K2111	11/21/19	11/22/19	EPA 300.0	
% Moisture	17.0	0.1	%	1	P9K2101	11/21/19	11/21/19	ASTM D2216	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K2101 - *** DEFAULT PREP ***										
Blank (P9K2101-BLK1)					Prepared & Analyzed: 11/21/19					
% Moisture	ND	0.1	%							
Duplicate (P9K2101-DUP1)					Source: 9K19010-18 Prepared & Analyzed: 11/21/19					
% Moisture	17.0	0.1	%		17.0			0.00	20	
Duplicate (P9K2101-DUP2)					Source: 9K20003-19 Prepared & Analyzed: 11/21/19					
% Moisture	11.0	0.1	%		12.0			8.70	20	
Duplicate (P9K2101-DUP3)					Source: 9K20006-01 Prepared & Analyzed: 11/21/19					
% Moisture	2.0	0.1	%		4.0			66.7	20	
Duplicate (P9K2101-DUP4)					Source: 9K20012-01 Prepared & Analyzed: 11/21/19					
% Moisture	16.0	0.1	%		11.0			37.0	20	
Batch P9K2111 - *** DEFAULT PREP ***										
Blank (P9K2111-BLK1)					Prepared: 11/21/19 Analyzed: 11/22/19					
Chloride	ND	0.100	mg/kg wet							
LCS (P9K2111-BS1)					Prepared: 11/21/19 Analyzed: 11/22/19					
Chloride	ND	1.00	mg/kg wet	400			80-120			
LCS Dup (P9K2111-BSD1)					Prepared: 11/21/19 Analyzed: 11/22/19					
Chloride	ND	1.00	mg/kg wet	400			80-120		20	
Calibration Blank (P9K2111-CCB1)					Prepared: 11/21/19 Analyzed: 11/22/19					
Chloride	0.00		mg/kg wet							

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K2111 - *** DEFAULT PREP ***										
Calibration Blank (P9K2111-CCB2)				Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9K2111-CCV1)				Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	0.00		mg/kg	20.0			0-200			
Calibration Check (P9K2111-CCV2)				Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	0.00		mg/kg	20.0			0-200			
Calibration Check (P9K2111-CCV3)				Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	0.00		mg/kg	20.0			0-200			
Matrix Spike (P9K2111-MS1)				Source: 9K14022-03 Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	ND	1.12	mg/kg dry	562	ND		80-120			
Matrix Spike (P9K2111-MS2)				Source: 9K21001-03 Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	ND	1.00	mg/kg wet	2500	ND		80-120			
Matrix Spike Dup (P9K2111-MSD1)				Source: 9K14022-03 Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	ND	1.12	mg/kg dry	562	ND		80-120		20	
Matrix Spike Dup (P9K2111-MSD2)				Source: 9K21001-03 Prepared: 11/21/19 Analyzed: 11/22/19						
Chloride	ND	1.00	mg/kg wet	2500	ND		80-120		20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Flowline Release
Project Number: Pending
Project Manager: John Kell

Fax: (432) 686-8085

Notes and Definitions

ROI	Received on Ice
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: _____



Date: 11/22/2019

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 901 W. Wall Street, Ste 100
 Midland, Texas 79701
 Tel (432) 682-4559
 Fax (432) 682-3946

9K20016

Page

of

Page 13 of 13

Client Name: Cimarex		Site Manager: John Kell	
Project Name: Hallertau Flowline Release			
Project Location: Lea Co., New Mexico		Project #: TBD	
Invoice to: Cimarex Attn: Christine Alderman			
Receiving Laboratory: PBE Lab		Sampler Signature: John Kell	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			ICE
	BG Trench @ 1'	11.20.2019	-	X	X	X		1		
	BG Trench @ 2'	11.20.2019	-	X	X	X		1		
	BG Trench @ 3'	11.20.2019	-	X	X	X		1		
	BG Trench @ 4'	11.20.2019	-	X	X	X		1		
	T-1 @ 4'	11.20.2019	-	X	X	X		1		
	T-2 @ 4'	11.20.2019	-	X	X	X		1		
	T-3 @ 4'	11.20.2019	-	X	X	X		1		

Relinquished by: <i>V. Kell</i>	Date: 11.20.19	Time: 1620	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Received by: <i>John Kell</i>	Date: 11.20.19	Time: 4:22
-------------------------------	----------------	------------

LAB USE ONLY	REMARKS:
☒ RUSH: Same Day ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report	BTEX 8021B BTEX 8260B TPH TX1005 (Ext to C35) TPH 8015M (GRO - DRO - ORO - MPO) 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 SAR Hold

ORIGINAL COPY

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

John Kell
Tetra Tech
901 W Wall Street, Ste 100
Midland, TX 79705

Project: Hallertau Pipeline Release
Project Number: 212C-MD-02007
Location: Lea County, NM
Lab Order Number: 9L03002



NELAP/TCEQ # T104704516-17-8

Report Date: 12/11/19

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Pipeline Release
Project Number: 212C-MD-02007
Project Manager: John Kell

Fax: (432) 686-8085

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E' 1SW	9L03002-01	Soil	11/21/19 00:00	12-03-2019 08:50
E1SW	9L03002-02	Soil	11/21/19 00:00	12-03-2019 08:50
E2SW	9L03002-03	Soil	11/21/19 00:00	12-03-2019 08:50
N' 1SW	9L03002-04	Soil	11/21/19 00:00	12-03-2019 08:50
N1SW	9L03002-05	Soil	11/21/19 00:00	12-03-2019 08:50
N2SW	9L03002-06	Soil	11/21/19 00:00	12-03-2019 08:50
N3SW	9L03002-07	Soil	11/21/19 00:00	12-03-2019 08:50
W' 1SW	9L03002-08	Soil	11/21/19 00:00	12-03-2019 08:50
W1SW	9L03002-09	Soil	11/21/19 00:00	12-03-2019 08:50
W2SW	9L03002-10	Soil	11/21/19 00:00	12-03-2019 08:50
W3SW	9L03002-11	Soil	11/21/19 00:00	12-03-2019 08:50

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Pipeline Release
Project Number: 212C-MD-02007
Project Manager: John Kell

Fax: (432) 686-8085

E' 1SW
9L03002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	60.1	1.05	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0
% Moisture	5.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216

Permian Basin Environmental Lab, L.P.

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Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

E1SW
9L03002-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	17.0	1.05	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	5.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

E2SW
9L03002-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	71.1	1.02	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	2.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

N' 1SW
9L03002-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	83.5	1.05	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	5.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

N1SW
9L03002-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	6480	10.9	mg/kg dry	10	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	8.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

N2SW
9L03002-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	6.37	1.15	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	13.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

N3SW
9L03002-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	15.2	1.04	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	4.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

W' 1SW
9L03002-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	831	1.08	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	7.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

W1SW
9L03002-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	48.7	1.10	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	9.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

W2SW
9L03002-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	73.4	1.05	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	5.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech	Project: Hallertau Pipeline Release	Fax: (432) 686-8085
901 W Wall Street, Ste 100	Project Number: 212C-MD-02007	
Midland TX, 79705	Project Manager: John Kell	

W3SW
9L03002-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods									
Chloride	54.3	1.04	mg/kg dry	1	P9L0703	12/07/19	12/09/19	EPA 300.0	
% Moisture	4.0	0.1	%	1	P9L0404	12/04/19	12/04/19	ASTM D2216	

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Pipeline Release
Project Number: 212C-MD-02007
Project Manager: John Kell

Fax: (432) 686-8085

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9L0404 - *** DEFAULT PREP ***										
Blank (P9L0404-BLK1)					Prepared & Analyzed: 12/04/19					
% Moisture	ND	0.1	%							
Duplicate (P9L0404-DUP1)					Source: 9L03002-08 Prepared & Analyzed: 12/04/19					
% Moisture	8.0	0.1	%		7.0			13.3	20	
Duplicate (P9L0404-DUP2)					Source: 9L03003-24 Prepared & Analyzed: 12/04/19					
% Moisture	9.0	0.1	%		11.0			20.0	20	
Duplicate (P9L0404-DUP3)					Source: 9L03003-35 Prepared & Analyzed: 12/04/19					
% Moisture	7.0	0.1	%		10.0			35.3	20	
Batch P9L0703 - *** DEFAULT PREP ***										
Blank (P9L0703-BLK1)					Prepared: 12/07/19 Analyzed: 12/09/19					
Chloride	ND	0.100	mg/kg wet							
Calibration Blank (P9L0703-CCB1)					Prepared: 12/07/19 Analyzed: 12/09/19					
Chloride	0.00		mg/kg wet							
Calibration Blank (P9L0703-CCB2)					Prepared: 12/07/19 Analyzed: 12/09/19					
Chloride	0.00		mg/kg wet							
Calibration Check (P9L0703-CCV1)					Prepared: 12/07/19 Analyzed: 12/09/19					
Chloride	19.5		mg/kg	20.0		97.5	0-200			
Calibration Check (P9L0703-CCV2)					Prepared: 12/07/19 Analyzed: 12/09/19					
Chloride	19.2		mg/kg	20.0		96.2	0-200			

Permian Basin Environmental Lab, L.P.

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Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Pipeline Release
Project Number: 212C-MD-02007
Project Manager: John Kell

Fax: (432) 686-8085

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

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

Batch P9L0703 - * DEFAULT PREP *****

Calibration Check (P9L0703-CCV3)

Prepared: 12/07/19 Analyzed: 12/09/19

Chloride	19.1		mg/kg	20.0		95.5	0-200
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Matrix Spike (P9L0703-MS1)

Source: 9L02005-02

Prepared: 12/07/19 Analyzed: 12/09/19

Chloride	3230	12.3	mg/kg dry	1230	2190	84.4	80-120
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Matrix Spike (P9L0703-MS2)

Source: 9L03002-05

Prepared: 12/07/19 Analyzed: 12/09/19

Chloride	7650	10.9	mg/kg dry	1090	6480	108	80-120
----------	------	------	-----------	------	------	-----	--------

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Tetra Tech
901 W Wall Street, Ste 100
Midland TX, 79705

Project: Hallertau Pipeline Release
Project Number: 212C-MD-02007
Project Manager: John Kell

Fax: (432) 686-8085

Notes and Definitions

ROI	Received on Ice
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:



Date:

12/11/2019

Brent Barron, Laboratory Director/Technical Director

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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 4000 N. Big Spring Street, Ste
 401 Midland, Texas 79705
 Tel (432) 662-4555
 Fax (432) 662-3946

9103002

Page 1 of 1

Client Name:

Site Manager:

John Kell

Project Name:

Hallertau Pipeline Release

Project Location:

Lea Co., New Mexico

Project #:

212C-MD-02007

Invoice to:

Cimarex Attn: Christine Alderman

Receiving Laboratory:

PBE Labs

Sampler Signature:

Tony Legarda

Comments:

SAMPLE IDENTIFICATION

LAB #
(LAB USE ONLY)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
		YEAR: 2019	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE

1	E1SW	11/21/2019	-	X	X	X	X	X	1	
2	E1SW	11/21/2019	-	X	X	X	X	X	1	
3	E2SW	11/21/2019	-	X	X	X	X	X	1	
4	N1SW	11/21/2019	-	X	X	X	X	X	1	
5	N1SW	11/21/2019	-	X	X	X	X	X	1	
6	N2SW	11/21/2019	-	X	X	X	X	X	1	
7	N3SW	11/21/2019	-	X	X	X	X	X	2	
8	W1SW	11/21/2019	-	X	X	X	X	X	3	
9	W1SW	11/21/2019	-	X	X	X	X	X	4	
10	W2SW	11/21/2019	-	X	X	X	X	X	5	
11	W3SW	11/21/2019	-	X	X	X	X	X	6	

ANALYSIS REQUEST
(Circle or Specify Method No.)

Hold

Relinquished by:

J. Kell

Date:

12.3.19

Time:

0850

Relinquished by:

Date:

Time:

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Received by:

Date:

Time:

LAB USE ONLY
Sample TemperatureREMARKS:
☐ RUSH: Same Day 24 hr 48 hr 72 hr
☐ Rush Charges Authorized
☐ Special Report Limits or TRRP ReportCPI
L2

Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1197-1

Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Cimarex - Hallertan Pipeline

For:

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

Attn: Brittany Long

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

Authorized for release by:
9/2/2021 3:03:22 PM

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

LINKS

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results through

TotalAccess

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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: Cimarex - Hallertan Pipeline

Laboratory Job ID: 890-1197-1
SDG: Lea County NM

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

Job ID: 890-1197-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative	
	Job Narrative 890-1197-1

Receipt
The samples were received on 9/1/2021 8:00 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 5.8°C

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.

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

Client Sample ID: BH-3

Lab Sample ID: 890-1197-1

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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		09/01/21 15:30	09/02/21 03:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 03:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 03:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 03:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 03:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 03:12	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 03:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	09/01/21 15:30	09/02/21 03:12	1
1,4-Difluorobenzene (Surr)	97		70 - 130	09/01/21 15:30	09/02/21 03:12	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		09/01/21 15:44	09/02/21 01:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/02/21 01:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/02/21 01:22	1
Total TPH	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/02/21 01:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	09/01/21 15:44	09/02/21 01:22	1
o-Terphenyl	84		70 - 130	09/01/21 15:44	09/02/21 01:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	807		5.04		mg/Kg			09/01/21 22:53	1

Client Sample ID: BH-4

Lab Sample ID: 890-1197-2

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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		09/01/21 15:30	09/02/21 04:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 04:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 04:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/02/21 04:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 04:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/02/21 04:34	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/02/21 04:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	09/01/21 15:30	09/02/21 04:34	1
1,4-Difluorobenzene (Surr)	87		70 - 130	09/01/21 15:30	09/02/21 04:34	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		09/01/21 15:44	09/02/21 01:42	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

Client Sample ID: BH-4

Lab Sample ID: 890-1197-2

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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)	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/02/21 01:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/02/21 01:42	1
Total TPH	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/02/21 01:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	09/01/21 15:44	09/02/21 01:42	1
o-Terphenyl	96		70 - 130	09/01/21 15:44	09/02/21 01:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2250		24.9		mg/Kg			09/01/21 22:58	5

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
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)
880-5663-A-1-B MS	Matrix Spike	112	105
880-5663-A-1-C MSD	Matrix Spike Duplicate	109	106
890-1197-1	BH-3	117	97
890-1197-2	BH-4	100	87
LCS 880-7338/1-A	Lab Control Sample	111	104
LCS 880-7386/1-A	Lab Control Sample	112	95
LCSD 880-7338/2-A	Lab Control Sample Dup	107	105
LCSD 880-7386/2-A	Lab Control Sample Dup	109	105
MB 880-7338/5-A	Method Blank	102	98
MB 880-7386/5-A	Method Blank	106	100
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
890-1202-A-1-B MSD	Matrix Spike Duplicate		
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)
890-1197-1	BH-3	83	84
890-1197-2	BH-4	92	96
890-1200-A-1-E MS	Matrix Spike	77	76
890-1200-A-1-F MSD	Matrix Spike Duplicate	78	76
LCS 880-7409/2-A	Lab Control Sample	92	89
LCSD 880-7409/3-A	Lab Control Sample Dup	87	86
MB 880-7409/1-A	Method Blank	82	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-7338/5-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7338

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/01/21 09:30	09/01/21 12:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	09/01/21 09:30	09/01/21 12:55	1
1,4-Difluorobenzene (Surr)	98		70 - 130	09/01/21 09:30	09/01/21 12:55	1

Lab Sample ID: LCS 880-7338/1-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07874		mg/Kg		79	70 - 130
Toluene	0.100	0.07626		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.07838		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1610		mg/Kg		80	70 - 130
o-Xylene	0.100	0.08115		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-7338/2-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07580		mg/Kg		76	70 - 130	4	35
Toluene	0.100	0.07204		mg/Kg		72	70 - 130	6	35
Ethylbenzene	0.100	0.07514		mg/Kg		75	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1537		mg/Kg		77	70 - 130	5	35
o-Xylene	0.100	0.07813		mg/Kg		78	70 - 130	4	35

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

Lab Sample ID: 880-5663-A-1-B MS

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1	0.100	0.07493		mg/Kg		74	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

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

Lab Sample ID: 880-5663-A-1-B MS

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00199	U F1	0.100	0.07267		mg/Kg		72	70 - 130
Ethylbenzene	<0.00199	U F1	0.100	0.07320		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1510		mg/Kg		75	70 - 130
o-Xylene	<0.00199	U F1	0.100	0.07692		mg/Kg		77	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	112		70 - 130						
1,4-Difluorobenzene (Surr)	105		70 - 130						

Lab Sample ID: 880-5663-A-1-C MSD

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.101	0.06840	F1	mg/Kg		67	70 - 130	9	35
Toluene	<0.00199	U F1	0.101	0.06533	F1	mg/Kg		65	70 - 130	11	35
Ethylbenzene	<0.00199	U F1	0.101	0.06645	F1	mg/Kg		66	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1366	F1	mg/Kg		68	70 - 130	10	35
o-Xylene	<0.00199	U F1	0.101	0.06947	F1	mg/Kg		69	70 - 130	10	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	109		70 - 130								
1,4-Difluorobenzene (Surr)	106		70 - 130								

Lab Sample ID: MB 880-7386/5-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				09/01/21 15:30	09/01/21 23:47	1
1,4-Difluorobenzene (Surr)	100		70 - 130				09/01/21 15:30	09/01/21 23:47	1

Lab Sample ID: LCS 880-7386/1-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07667		mg/Kg		77	70 - 130
Toluene	0.100	0.07511		mg/Kg		75	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-7386/1-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.100	0.07912		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1667		mg/Kg		83	70 - 130
o-Xylene	0.100	0.09024		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-7386/2-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07618		mg/Kg		76	70 - 130	1	35
Toluene	0.100	0.07362		mg/Kg		74	70 - 130	2	35
Ethylbenzene	0.100	0.07632		mg/Kg		76	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1589		mg/Kg		79	70 - 130	5	35
o-Xylene	0.100	0.08299		mg/Kg		83	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-1202-A-1-B MSD

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00198	U	0.0998	0.05170		mg/Kg					
Toluene	<0.00198	U	0.0998	0.04259		mg/Kg					
Ethylbenzene	<0.00198	U	0.0998	0.03835		mg/Kg					
m-Xylene & p-Xylene	<0.00396	U	0.200	0.07838		mg/Kg					
o-Xylene	<0.00198	U	0.0998	0.04016		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

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

Lab Sample ID: MB 880-7409/1-A

Matrix: Solid

Analysis Batch: 7361

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7409

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		09/01/21 15:44	09/01/21 21:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/01/21 21:54	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-7409/1-A

Matrix: Solid

Analysis Batch: 7361

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7409

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/01/21 21:54	1
Total TPH	<50.0	U	50.0		mg/Kg		09/01/21 15:44	09/01/21 21:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	09/01/21 15:44	09/01/21 21:54	1
o-Terphenyl	91		70 - 130	09/01/21 15:44	09/01/21 21:54	1

Lab Sample ID: LCS 880-7409/2-A

Matrix: Solid

Analysis Batch: 7361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	969.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	826.0		mg/Kg		83	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: LCSD 880-7409/3-A

Matrix: Solid

Analysis Batch: 7361

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7409

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	930.2		mg/Kg		93	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	792.8		mg/Kg		79	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 890-1200-A-1-E MS

Matrix: Solid

Analysis Batch: 7361

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7409

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	915.9		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	995	729.9		mg/Kg		72	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	76		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

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

Lab Sample ID: 890-1200-A-1-F MSD

Matrix: Solid

Analysis Batch: 7361

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7409

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	<50.0	U	998	948.9		mg/Kg		95	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	730.8		mg/Kg		72	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	78		70 - 130								
o-Terphenyl	76		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-7406/1-A

Matrix: Solid

Analysis Batch: 7417

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			09/01/21 22:21	1

Lab Sample ID: LCS 880-7406/2-A

Matrix: Solid

Analysis Batch: 7417

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	260.0		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-7406/3-A

Matrix: Solid

Analysis Batch: 7417

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	259.5		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-1196-A-1-D MS

Matrix: Solid

Analysis Batch: 7417

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<4.96	U	248	267.6		mg/Kg		106	90 - 110

Lab Sample ID: 890-1196-A-1-E MSD

Matrix: Solid

Analysis Batch: 7417

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.96	U	248	266.8		mg/Kg		106	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

GC VOA

Prep Batch: 7338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-7338/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7338/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7338/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5663-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-5663-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 7383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1197-1	BH-3	Total/NA	Solid	8021B	7386
890-1197-2	BH-4	Total/NA	Solid	8021B	7386
MB 880-7338/5-A	Method Blank	Total/NA	Solid	8021B	7338
MB 880-7386/5-A	Method Blank	Total/NA	Solid	8021B	7386
LCS 880-7338/1-A	Lab Control Sample	Total/NA	Solid	8021B	7338
LCS 880-7386/1-A	Lab Control Sample	Total/NA	Solid	8021B	7386
LCSD 880-7338/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7338
LCSD 880-7386/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7386
880-5663-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	7338
880-5663-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7338
890-1202-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7386

Prep Batch: 7386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1197-1	BH-3	Total/NA	Solid	5035	
890-1197-2	BH-4	Total/NA	Solid	5035	
MB 880-7386/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7386/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7386/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1202-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 7361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1197-1	BH-3	Total/NA	Solid	8015B NM	7409
890-1197-2	BH-4	Total/NA	Solid	8015B NM	7409
MB 880-7409/1-A	Method Blank	Total/NA	Solid	8015B NM	7409
LCS 880-7409/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7409
LCSD 880-7409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7409
890-1200-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	7409
890-1200-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7409

Prep Batch: 7409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1197-1	BH-3	Total/NA	Solid	8015NM Prep	
890-1197-2	BH-4	Total/NA	Solid	8015NM Prep	
MB 880-7409/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7409/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1200-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1200-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 7406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1197-1	BH-3	Soluble	Solid	DI Leach	
890-1197-2	BH-4	Soluble	Solid	DI Leach	
MB 880-7406/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7406/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7406/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1196-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1196-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 7417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1197-1	BH-3	Soluble	Solid	300.0	7406
890-1197-2	BH-4	Soluble	Solid	300.0	7406
MB 880-7406/1-A	Method Blank	Soluble	Solid	300.0	7406
LCS 880-7406/2-A	Lab Control Sample	Soluble	Solid	300.0	7406
LCSD 880-7406/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7406
890-1196-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	7406
890-1196-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	7406

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

Client Sample ID: BH-3

Lab Sample ID: 890-1197-1

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	7386	09/01/21 15:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7383	09/02/21 03:12	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	7409	09/01/21 15:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7361	09/02/21 01:22	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	7406	09/01/21 15:32	CH	XEN MID
Soluble	Analysis	300.0		1			7417	09/01/21 22:53	CH	XEN MID

Client Sample ID: BH-4

Lab Sample ID: 890-1197-2

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	7386	09/01/21 15:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7383	09/02/21 04:34	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	7409	09/01/21 15:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7361	09/02/21 01:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	7406	09/01/21 15:32	CH	XEN MID
Soluble	Analysis	300.0		5			7417	09/01/21 22:58	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
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	06-30-22

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: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

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

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:

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

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1197-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-1197-1	BH-3	Solid	08/31/21 00:00	09/01/21 08:00
890-1197-2	BH-4	Solid	08/31/21 00:00	09/01/21 08:00

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Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

Page

of

Tetra Tech, Inc.

901 W. Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-4946

Client Name:

Cimarex

Site Manager:

Brittany Long

Project Name:

Holler Tau Pipeline

Project #:

MD-075104

Project Location:

Lea County, New Mexico

(county, state)

Invoice to:

Receiving Laboratory:

Comments:

Sampler Signature:

AYLES Tough

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

Relinquished by:

High Tough

Date: Time:

Date: Time:

Received by:

Joe Corp 9.1.21 0800

Date: Time:

Date: Time:

LAB USE ONLY

Sample Temperature

REMARKS:

STANDARD

☒ RUSH Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

Relinquished by:

Date: Time:

Received by:

Date: Time:

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

6.0
5.8

890-1197 Chain of Custody

ORIGINAL COPY

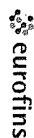
Eurofins Xenco, Carlsbad

1089 N Canal St

Carlsbad NM 88220

Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-1197-1

SDG Number: Lea County NM

Login Number: 1197

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, 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: 890-1197-1

SDG Number: Lea County NM

Login Number: 1197

List Source: Eurofins Xenco, Midland

List Number: 2

List Creation: 09/01/21 03:30 PM

Creator: Kramer, Jessica

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	2.1/2.6
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").	N/A	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1198-1

Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Cimarex - Hallertan Pipeline

For:

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

Attn: Brittany Long

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

Authorized for release by:
9/2/2021 3:03:40 PM

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

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results through

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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: Cimarex - Hallertan Pipeline

Laboratory Job ID: 890-1198-1
SDG: Lea County NM

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
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: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Job ID: 890-1198-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1198-1

Receipt

The samples were received on 9/1/2021 8:00 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 5.8°C

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: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Client Sample ID: SW-5

Lab Sample ID: 890-1198-1

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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		09/01/21 15:30	09/02/21 04:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 04:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 04:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/01/21 15:30	09/02/21 04:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 04:54	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/01/21 15:30	09/02/21 04:54	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		09/01/21 15:30	09/02/21 04:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	09/01/21 15:30	09/02/21 04:54	1
1,4-Difluorobenzene (Surr)	97		70 - 130	09/01/21 15:30	09/02/21 04:54	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		09/01/21 16:03	09/02/21 02:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 02:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 02:29	1
Total TPH	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	09/01/21 16:03	09/02/21 02:29	1
o-Terphenyl	106		70 - 130	09/01/21 16:03	09/02/21 02:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	343		4.95		mg/Kg			09/01/21 23:03	1

Client Sample ID: SW-7

Lab Sample ID: 890-1198-2

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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		09/01/21 15:30	09/02/21 05:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 05:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 05:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 05:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 05:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 05:14	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 05:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	09/01/21 15:30	09/02/21 05:14	1
1,4-Difluorobenzene (Surr)	100		70 - 130	09/01/21 15:30	09/02/21 05:14	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		09/01/21 16:03	09/02/21 02:49	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Client Sample ID: SW-7

Lab Sample ID: 890-1198-2

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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		09/01/21 16:03	09/02/21 02:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 02:49	1
Total TPH	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 02:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				09/01/21 16:03	09/02/21 02:49	1
o-Terphenyl	111		70 - 130				09/01/21 16:03	09/02/21 02:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4350		25.2		mg/Kg			09/01/21 23:08	5

Client Sample ID: SW-10

Lab Sample ID: 890-1198-3

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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		09/01/21 15:30	09/02/21 05:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 05:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 05:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/02/21 05:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/02/21 05:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/02/21 05:35	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/02/21 05:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				09/01/21 15:30	09/02/21 05:35	1
1,4-Difluorobenzene (Surr)	99		70 - 130				09/01/21 15:30	09/02/21 05:35	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		09/01/21 16:03	09/02/21 03:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/01/21 16:03	09/02/21 03:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/01/21 16:03	09/02/21 03:09	1
Total TPH	<49.8	U	49.8		mg/Kg		09/01/21 16:03	09/02/21 03:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130				09/01/21 16:03	09/02/21 03:09	1
o-Terphenyl	91		70 - 130				09/01/21 16:03	09/02/21 03:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4340		24.8		mg/Kg			09/01/21 23:24	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Client Sample ID: SW-12

Lab Sample ID: 890-1198-4

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

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		09/01/21 15:30	09/02/21 05:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 05:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 05:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 05:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/01/21 15:30	09/02/21 05:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 05:55	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		09/01/21 15:30	09/02/21 05:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	09/01/21 15:30	09/02/21 05:55	1
1,4-Difluorobenzene (Surr)	94		70 - 130	09/01/21 15:30	09/02/21 05:55	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		09/01/21 16:03	09/02/21 03:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 03:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 03:29	1
Total TPH	<49.9	U	49.9		mg/Kg		09/01/21 16:03	09/02/21 03:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	09/01/21 16:03	09/02/21 03:29	1
o-Terphenyl	94		70 - 130	09/01/21 16:03	09/02/21 03:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6020		50.0		mg/Kg			09/01/21 23:29	10

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
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)
880-5663-A-1-B MS	Matrix Spike	112	105
880-5663-A-1-C MSD	Matrix Spike Duplicate	109	106
890-1198-1	SW-5	125	97
890-1198-2	SW-7	127	100
890-1198-3	SW-10	124	99
890-1198-4	SW-12	129	94
LCS 880-7338/1-A	Lab Control Sample	111	104
LCS 880-7386/1-A	Lab Control Sample	112	95
LCSD 880-7338/2-A	Lab Control Sample Dup	107	105
LCSD 880-7386/2-A	Lab Control Sample Dup	109	105
MB 880-7338/5-A	Method Blank	102	98
MB 880-7386/5-A	Method Blank	106	100
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
890-1202-A-1-B MSD	Matrix Spike Duplicate		
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)
820-1759-A-1-E MS	Matrix Spike	93	94
820-1759-A-1-F MSD	Matrix Spike Duplicate	99	88
890-1198-1	SW-5	105	106
890-1198-2	SW-7	106	111
890-1198-3	SW-10	84	91
890-1198-4	SW-12	94	94
LCS 880-7410/2-A	Lab Control Sample	97	97
LCSD 880-7410/3-A	Lab Control Sample Dup	100	103
MB 880-7410/1-A	Method Blank	96	103
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-7338/5-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7338

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/01/21 09:30	09/01/21 12:55	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/01/21 09:30	09/01/21 12:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	09/01/21 09:30	09/01/21 12:55	1
1,4-Difluorobenzene (Surr)	98		70 - 130	09/01/21 09:30	09/01/21 12:55	1

Lab Sample ID: LCS 880-7338/1-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07874		mg/Kg		79	70 - 130
Toluene	0.100	0.07626		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.07838		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1610		mg/Kg		80	70 - 130
o-Xylene	0.100	0.08115		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-7338/2-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07580		mg/Kg		76	70 - 130	4	35
Toluene	0.100	0.07204		mg/Kg		72	70 - 130	6	35
Ethylbenzene	0.100	0.07514		mg/Kg		75	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1537		mg/Kg		77	70 - 130	5	35
o-Xylene	0.100	0.07813		mg/Kg		78	70 - 130	4	35

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

Lab Sample ID: 880-5663-A-1-B MS

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1	0.100	0.07493		mg/Kg		74	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

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

Lab Sample ID: 880-5663-A-1-B MS

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00199	U F1	0.100	0.07267		mg/Kg		72	70 - 130
Ethylbenzene	<0.00199	U F1	0.100	0.07320		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1510		mg/Kg		75	70 - 130
o-Xylene	<0.00199	U F1	0.100	0.07692		mg/Kg		77	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 880-5663-A-1-C MSD

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7338

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.101	0.06840	F1	mg/Kg		67	70 - 130	9	35
Toluene	<0.00199	U F1	0.101	0.06533	F1	mg/Kg		65	70 - 130	11	35
Ethylbenzene	<0.00199	U F1	0.101	0.06645	F1	mg/Kg		66	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1366	F1	mg/Kg		68	70 - 130	10	35
o-Xylene	<0.00199	U F1	0.101	0.06947	F1	mg/Kg		69	70 - 130	10	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: MB 880-7386/5-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/01/21 23:47	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/01/21 15:30	09/01/21 23:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	09/01/21 15:30	09/01/21 23:47	1
1,4-Difluorobenzene (Surr)	100		70 - 130	09/01/21 15:30	09/01/21 23:47	1

Lab Sample ID: LCS 880-7386/1-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07667		mg/Kg		77	70 - 130
Toluene	0.100	0.07511		mg/Kg		75	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-7386/1-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.100	0.07912		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1667		mg/Kg		83	70 - 130
o-Xylene	0.100	0.09024		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-7386/2-A

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07618		mg/Kg		76	70 - 130	1	35
Toluene	0.100	0.07362		mg/Kg		74	70 - 130	2	35
Ethylbenzene	0.100	0.07632		mg/Kg		76	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1589		mg/Kg		79	70 - 130	5	35
o-Xylene	0.100	0.08299		mg/Kg		83	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-1202-A-1-B MSD

Matrix: Solid

Analysis Batch: 7383

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7386

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00198	U	0.0998	0.05170		mg/Kg					
Toluene	<0.00198	U	0.0998	0.04259		mg/Kg					
Ethylbenzene	<0.00198	U	0.0998	0.03835		mg/Kg					
m-Xylene & p-Xylene	<0.00396	U	0.200	0.07838		mg/Kg					
o-Xylene	<0.00198	U	0.0998	0.04016		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

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

Lab Sample ID: MB 880-7410/1-A

Matrix: Solid

Analysis Batch: 7357

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7410

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		09/01/21 16:03	09/01/21 20:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/01/21 16:03	09/01/21 20:29	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-7410/1-A

Matrix: Solid

Analysis Batch: 7357

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7410

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/01/21 16:03	09/01/21 20:29	1
Total TPH	<50.0	U	50.0		mg/Kg		09/01/21 16:03	09/01/21 20:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	09/01/21 16:03	09/01/21 20:29	1
o-Terphenyl	103		70 - 130	09/01/21 16:03	09/01/21 20:29	1

Lab Sample ID: LCS 880-7410/2-A

Matrix: Solid

Analysis Batch: 7357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7410

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	968.2		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	924.2		mg/Kg		92	70 - 130

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

Lab Sample ID: LCSD 880-7410/3-A

Matrix: Solid

Analysis Batch: 7357

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7410

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	981.1		mg/Kg		98	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	970.1		mg/Kg		97	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 820-1759-A-1-E MS

Matrix: Solid

Analysis Batch: 7357

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7410

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	846.8		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	995	833.5		mg/Kg		84	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	94		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

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

Lab Sample ID: 820-1759-A-1-F MSD

Matrix: Solid

Analysis Batch: 7357

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7410

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	<50.0	U	998	851.1		mg/Kg		85	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	807.4		mg/Kg		81	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	99		70 - 130								
o-Terphenyl	88		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-7406/1-A

Matrix: Solid

Analysis Batch: 7417

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			09/01/21 22:21	1

Lab Sample ID: LCS 880-7406/2-A

Matrix: Solid

Analysis Batch: 7417

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	260.0		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-7406/3-A

Matrix: Solid

Analysis Batch: 7417

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	259.5		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-1196-A-1-D MS

Matrix: Solid

Analysis Batch: 7417

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<4.96	U	248	267.6		mg/Kg		106	90 - 110

Lab Sample ID: 890-1196-A-1-E MSD

Matrix: Solid

Analysis Batch: 7417

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.96	U	248	266.8		mg/Kg		106	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

GC VOA

Prep Batch: 7338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-7338/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7338/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7338/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5663-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-5663-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 7383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1198-1	SW-5	Total/NA	Solid	8021B	7386
890-1198-2	SW-7	Total/NA	Solid	8021B	7386
890-1198-3	SW-10	Total/NA	Solid	8021B	7386
890-1198-4	SW-12	Total/NA	Solid	8021B	7386
MB 880-7338/5-A	Method Blank	Total/NA	Solid	8021B	7338
MB 880-7386/5-A	Method Blank	Total/NA	Solid	8021B	7386
LCS 880-7338/1-A	Lab Control Sample	Total/NA	Solid	8021B	7338
LCS 880-7386/1-A	Lab Control Sample	Total/NA	Solid	8021B	7386
LCSD 880-7338/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7338
LCSD 880-7386/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7386
880-5663-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	7338
880-5663-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7338
890-1202-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7386

Prep Batch: 7386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1198-1	SW-5	Total/NA	Solid	5035	
890-1198-2	SW-7	Total/NA	Solid	5035	
890-1198-3	SW-10	Total/NA	Solid	5035	
890-1198-4	SW-12	Total/NA	Solid	5035	
MB 880-7386/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7386/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7386/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1202-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 7357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1198-1	SW-5	Total/NA	Solid	8015B NM	7410
890-1198-2	SW-7	Total/NA	Solid	8015B NM	7410
890-1198-3	SW-10	Total/NA	Solid	8015B NM	7410
890-1198-4	SW-12	Total/NA	Solid	8015B NM	7410
MB 880-7410/1-A	Method Blank	Total/NA	Solid	8015B NM	7410
LCS 880-7410/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7410
LCSD 880-7410/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7410
820-1759-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	7410
820-1759-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7410

Prep Batch: 7410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1198-1	SW-5	Total/NA	Solid	8015NM Prep	
890-1198-2	SW-7	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 7410 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1198-3	SW-10	Total/NA	Solid	8015NM Prep	
890-1198-4	SW-12	Total/NA	Solid	8015NM Prep	
MB 880-7410/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7410/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7410/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
820-1759-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
820-1759-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 7406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1198-1	SW-5	Soluble	Solid	DI Leach	
890-1198-2	SW-7	Soluble	Solid	DI Leach	
890-1198-3	SW-10	Soluble	Solid	DI Leach	
890-1198-4	SW-12	Soluble	Solid	DI Leach	
MB 880-7406/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7406/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7406/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1196-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1196-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 7417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1198-1	SW-5	Soluble	Solid	300.0	7406
890-1198-2	SW-7	Soluble	Solid	300.0	7406
890-1198-3	SW-10	Soluble	Solid	300.0	7406
890-1198-4	SW-12	Soluble	Solid	300.0	7406
MB 880-7406/1-A	Method Blank	Soluble	Solid	300.0	7406
LCS 880-7406/2-A	Lab Control Sample	Soluble	Solid	300.0	7406
LCSD 880-7406/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7406
890-1196-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	7406
890-1196-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	7406

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Client Sample ID: SW-5

Lab Sample ID: 890-1198-1

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	7386	09/01/21 15:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7383	09/02/21 04:54	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	7410	09/01/21 16:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7357	09/02/21 02:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	7406	09/01/21 15:32	CH	XEN MID
Soluble	Analysis	300.0		1			7417	09/01/21 23:03	CH	XEN MID

Client Sample ID: SW-7

Lab Sample ID: 890-1198-2

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	7386	09/01/21 15:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7383	09/02/21 05:14	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	7410	09/01/21 16:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7357	09/02/21 02:49	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	7406	09/01/21 15:32	CH	XEN MID
Soluble	Analysis	300.0		5			7417	09/01/21 23:08	CH	XEN MID

Client Sample ID: SW-10

Lab Sample ID: 890-1198-3

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	7386	09/01/21 15:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7383	09/02/21 05:35	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	7410	09/01/21 16:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7357	09/02/21 03:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	7406	09/01/21 15:32	CH	XEN MID
Soluble	Analysis	300.0		5			7417	09/01/21 23:24	CH	XEN MID

Client Sample ID: SW-12

Lab Sample ID: 890-1198-4

Date Collected: 08/31/21 00:00

Matrix: Solid

Date Received: 09/01/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	7386	09/01/21 15:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7383	09/02/21 05:55	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	7410	09/01/21 16:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7357	09/02/21 03:29	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	7406	09/01/21 15:32	CH	XEN MID
Soluble	Analysis	300.0		10			7417	09/01/21 23:29	CH	XEN MID

Laboratory References:

XEN MID = 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: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
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	06-30-22

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

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

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

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:

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

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Cimarex - Hallertan Pipeline

Job ID: 890-1198-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-1198-1	SW-5	Solid	08/31/21 00:00	09/01/21 08:00
890-1198-2	SW-7	Solid	08/31/21 00:00	09/01/21 08:00
890-1198-3	SW-10	Solid	08/31/21 00:00	09/01/21 08:00
890-1198-4	SW-12	Solid	08/31/21 00:00	09/01/21 08:00

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Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

501 W. 19th Street, Ste 100
Midland, Texas 79705
Tel (432) 692-4559 Fax (432) 692-3246

Client Name:

Cimarex

Site Manager:

Brittany Long

ANA



890-1198 Chain of Custody

Page 1 of 1

Project Name:

Hallertau Pipeline

Project Location:

Lea County, New Mexico

Project #:

AD-07564

Invoice to:

Cimarex / Laci-Luis

Receiving Laboratory:

Sampler Signature:

Brittany Long

Comments:

SAMPLE IDENTIFICATION

LAB #

SAMPLING

MATRIX

PRESERVATIVE METHOD

CONTAINERS

FILTERED (Y/N)

DATE

TIME

WATER

SOIL

HCL

HNO₃

ICE

None

BTX 8021B BTX 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

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

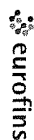
Eurofins Xenco, Carlsbad

1089 N Canal St.

Carlsbad NM 88220

Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-1198-1

SDG Number: Lea County NM

Login Number: 1198

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, 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: 890-1198-1

SDG Number: Lea County NM

Login Number: 1198

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 09/01/21 03:30 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	2.1/2.6
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").	N/A	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1750-1

Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Hallertau 5 Fed #4

For:

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

Attn: Brittany Long

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

Authorized for release by:
1/4/2022 2:18:43 PM

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

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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: Hallertau 5 Fed #4

Laboratory Job ID: 890-1750-1
SDG: Lea County NM

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
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)

Eurofins Xenco, Carlsbad

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Job ID: 890-1750-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1750-1

Receipt

The samples were received on 12/22/2021 4:44 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 1.8°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15710 and 880-15712 and analytical batch 880-15781 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-41 (890-1750-41), BH-42 (890-1750-42), BH-43 (890-1750-43), BH-44 (890-1750-44), BH-45 (890-1750-45), SW-3 (890-1750-48), SW-5 (890-1750-50), SW-6 (890-1750-51), SW-7 (890-1750-52), SW-8 (890-1750-53), SW-9 (890-1750-54), SW-11 (890-1750-56), SW-13 (890-1750-58), SW-14 (890-1750-59), SW-15 (890-1750-60), SW-17 (890-1750-62), SW-18 (890-1750-63), SW-19 (890-1750-64), SW-20 (890-1750-65), SW-21 (890-1750-66), SW-22 (890-1750-67), SW-25 (890-1750-70), SW-26 (890-1750-71), SW-27 (890-1750-72), SW-29 (890-1750-74), SW-30 (890-1750-75), SW-31 (890-1750-76), SW-32 (890-1750-77), (LCS 880-15710/1-A), (LCS 880-15712/1-A), (LCSD 880-15710/2-A) and (LCSD 880-15712/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-3 (890-1750-3), BH-6 (890-1750-6), BH-11 (890-1750-11), (LCSD 880-15707/2-A) and (890-1750-A-1-H MSD). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate 4-Bromofluorobenzene recovery for the following samples were outside control limits: BH-26 (890-1750-26), BH-32 (890-1750-32), BH-33 (890-1750-33), BH-35 (890-1750-35), BH-36 (890-1750-36), BH-37 (890-1750-37), BH-40 (890-1750-40), SW-38 (890-1750-83), SW-39 (890-1750-84), (890-1750-A-21-H MS) and (890-1750-A-21-I MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate 1,4-Difluorobenzene recovery for the following sample was outside control limits: (890-1750-A-21-H MS). 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

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-15659 and analytical batch 880-15677 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15699 and analytical batch 880-15779 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15702 and analytical batch 880-15779 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15722 and analytical batch 880-15825 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Job ID: 890-1750-1 (Continued)

Laboratory: Eurofins Xenco, Carlsbad (Continued)

HPLC/IC

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

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-1

Lab Sample ID: 890-1750-1

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1 F2	0.00199		mg/Kg		12/29/21 08:59	12/31/21 01:54	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		12/29/21 08:59	12/31/21 01:54	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		12/29/21 08:59	12/31/21 01:54	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		12/29/21 08:59	12/31/21 01:54	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		12/29/21 08:59	12/31/21 01:54	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		12/29/21 08:59	12/31/21 01:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	12/29/21 08:59	12/31/21 01:54	1
1,4-Difluorobenzene (Surr)	87		70 - 130	12/29/21 08:59	12/31/21 01:54	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 12:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		12/29/21 08:37	12/30/21 12:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	12/29/21 08:37	12/30/21 12:20	1
o-Terphenyl	91		70 - 130	12/29/21 08:37	12/30/21 12:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	171	F1	4.95		mg/Kg			12/29/21 21:12	1

Client Sample ID: BH-2

Lab Sample ID: 890-1750-2

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4

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		12/29/21 08:59	12/31/21 02:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 02:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 02:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 02:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 02:15	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 02:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	12/29/21 08:59	12/31/21 02:15	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-2

Lab Sample ID: 890-1750-2

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	12/29/21 08:59	12/31/21 02:15	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 13:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 13:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 13:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				12/29/21 08:37	12/30/21 13:21	1
o-Terphenyl	90		70 - 130				12/29/21 08:37	12/30/21 13:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	226		5.05		mg/Kg			12/29/21 21:36	1

Client Sample ID: BH-3

Lab Sample ID: 890-1750-3

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00212		0.00199		mg/Kg		12/29/21 08:59	12/31/21 02:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 02:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 02:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 02:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 02:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 02:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	12/29/21 08:59	12/31/21 02:35	1
1,4-Difluorobenzene (Surr)	91		70 - 130	12/29/21 08:59	12/31/21 02:35	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-3

Lab Sample ID: 890-1750-3

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:37	12/30/21 13:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 13:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 13:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				12/29/21 08:37	12/30/21 13:42	1
o-Terphenyl	92		70 - 130				12/29/21 08:37	12/30/21 13:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	156		4.97		mg/Kg			12/29/21 21:44	1

Client Sample ID: BH-4

Lab Sample ID: 890-1750-4

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 02:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 02:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 02:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 02:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 02:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 02:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				12/29/21 08:59	12/31/21 02:55	1
1,4-Difluorobenzene (Surr)	74		70 - 130				12/29/21 08:59	12/31/21 02:55	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 14:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 14:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 14:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				12/29/21 08:37	12/30/21 14:02	1
o-Terphenyl	94		70 - 130				12/29/21 08:37	12/30/21 14:02	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-4

Lab Sample ID: 890-1750-4

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	126		4.95		mg/Kg			12/29/21 21:51	1

Client Sample ID: BH-5

Lab Sample ID: 890-1750-5

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 03:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 03:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 03:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 03:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 03:16	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 03:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				12/29/21 08:59	12/31/21 03:16	1
1,4-Difluorobenzene (Surr)	104		70 - 130				12/29/21 08:59	12/31/21 03:16	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 15:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 15:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 15:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				12/29/21 08:37	12/30/21 15:53	1
o-Terphenyl	91		70 - 130				12/29/21 08:37	12/30/21 15:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		5.04		mg/Kg			12/29/21 21:59	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-6

Lab Sample ID: 890-1750-6

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 03:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 03:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 03:36	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/29/21 08:59	12/31/21 03:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 03:36	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/29/21 08:59	12/31/21 03:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	12/29/21 08:59	12/31/21 03:36	1
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130	12/29/21 08:59	12/31/21 03:36	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 16:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 16:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	12/29/21 08:37	12/30/21 16:13	1
o-Terphenyl	91		70 - 130	12/29/21 08:37	12/30/21 16:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	159		4.99		mg/Kg			12/29/21 22:23	1

Client Sample ID: BH-7

Lab Sample ID: 890-1750-7

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 03:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 03:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 03:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 03:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 03:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 03:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	12/29/21 08:59	12/31/21 03:57	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-7

Lab Sample ID: 890-1750-7

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	12/29/21 08:59	12/31/21 03:57	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 16:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 16:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 16:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130				12/29/21 08:37	12/30/21 16:34	1
o-Terphenyl	92		70 - 130				12/29/21 08:37	12/30/21 16:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	149		4.98		mg/Kg			12/29/21 22:31	1

Client Sample ID: BH-8

Lab Sample ID: 890-1750-8

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 04:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 04:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 04:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 04:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 04:17	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 04:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	12/29/21 08:59	12/31/21 04:17	1
1,4-Difluorobenzene (Surr)	82		70 - 130	12/29/21 08:59	12/31/21 04:17	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-8

Lab Sample ID: 890-1750-8

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:37	12/30/21 16:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 16:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 16:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				12/29/21 08:37	12/30/21 16:54	1
o-Terphenyl	90		70 - 130				12/29/21 08:37	12/30/21 16:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	391		4.95		mg/Kg			12/29/21 22:39	1

Client Sample ID: BH-9

Lab Sample ID: 890-1750-9

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 04:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 04:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 04:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 04:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 04:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 04:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130				12/29/21 08:59	12/31/21 04:37	1
1,4-Difluorobenzene (Surr)	73		70 - 130				12/29/21 08:59	12/31/21 04:37	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 17:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 17:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 17:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				12/29/21 08:37	12/30/21 17:14	1
o-Terphenyl	90		70 - 130				12/29/21 08:37	12/30/21 17:14	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-9

Lab Sample ID: 890-1750-9

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	270		5.01		mg/Kg			12/29/21 22:46	1

Client Sample ID: BH-10

Lab Sample ID: 890-1750-10

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 04:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 04:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 04:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 04:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 04:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 04:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				12/29/21 08:59	12/31/21 04:58	1
1,4-Difluorobenzene (Surr)	96		70 - 130				12/29/21 08:59	12/31/21 04:58	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 17:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 17:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 17:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				12/29/21 08:37	12/30/21 17:34	1
o-Terphenyl	91		70 - 130				12/29/21 08:37	12/30/21 17:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	294		4.98		mg/Kg			12/29/21 22:54	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-11

Lab Sample ID: 890-1750-11

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 06:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 06:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 06:20	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 06:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 06:20	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 06:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	146	S1+	70 - 130	12/29/21 08:59	12/31/21 06:20	1
1,4-Difluorobenzene (Surr)	103		70 - 130	12/29/21 08:59	12/31/21 06:20	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 18:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 18:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	12/29/21 08:37	12/30/21 18:15	1
o-Terphenyl	93		70 - 130	12/29/21 08:37	12/30/21 18:15	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	295		4.99		mg/Kg			12/29/21 23:02	1

Client Sample ID: BH-12

Lab Sample ID: 890-1750-12

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 06:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 06:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 06:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 06:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 06:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 06:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	12/29/21 08:59	12/31/21 06:40	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-12

Lab Sample ID: 890-1750-12

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	12/29/21 08:59	12/31/21 06:40	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 18:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 18:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 18:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				12/29/21 08:37	12/30/21 18:35	1
o-Terphenyl	89		70 - 130				12/29/21 08:37	12/30/21 18:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	316		5.02		mg/Kg			12/29/21 23:26	1

Client Sample ID: BH-13

Lab Sample ID: 890-1750-13

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 07:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 07:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 07:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/29/21 08:59	12/31/21 07:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 07:01	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/29/21 08:59	12/31/21 07:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	12/29/21 08:59	12/31/21 07:01	1
1,4-Difluorobenzene (Surr)	106		70 - 130	12/29/21 08:59	12/31/21 07:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-13

Lab Sample ID: 890-1750-13

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:37	12/30/21 18:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 18:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 18:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130				12/29/21 08:37	12/30/21 18:56	1
o-Terphenyl	97		70 - 130				12/29/21 08:37	12/30/21 18:56	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	314		4.98		mg/Kg			12/29/21 23:34	1

Client Sample ID: BH-14

Lab Sample ID: 890-1750-14

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 07:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 07:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 07:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 07:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 07:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 07:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				12/29/21 08:59	12/31/21 07:21	1
1,4-Difluorobenzene (Surr)	86		70 - 130				12/29/21 08:59	12/31/21 07:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 19:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 19:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				12/29/21 08:37	12/30/21 19:16	1
o-Terphenyl	91		70 - 130				12/29/21 08:37	12/30/21 19:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-14

Lab Sample ID: 890-1750-14

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	377		4.97		mg/Kg			12/29/21 23:57	1

Client Sample ID: BH-15

Lab Sample ID: 890-1750-15

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 07:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 07:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 07:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 07:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 07:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 07:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130				12/29/21 08:59	12/31/21 07:42	1
1,4-Difluorobenzene (Surr)	85		70 - 130				12/29/21 08:59	12/31/21 07:42	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 19:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 19:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 08:37	12/30/21 19:36	1
o-Terphenyl	89		70 - 130				12/29/21 08:37	12/30/21 19:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	272		4.95		mg/Kg			12/30/21 00:05	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-16

Lab Sample ID: 890-1750-16

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 08:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 08:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 08:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 08:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 08:59	12/31/21 08:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 08:59	12/31/21 08:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	12/29/21 08:59	12/31/21 08:02	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/29/21 08:59	12/31/21 08:02	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 19:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 19:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	12/29/21 08:37	12/30/21 19:56	1
o-Terphenyl	92		70 - 130	12/29/21 08:37	12/30/21 19:56	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	356		4.96		mg/Kg			12/30/21 00:13	1

Client Sample ID: BH-17

Lab Sample ID: 890-1750-17

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 08:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 08:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 08:22	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 08:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 08:22	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 08:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	12/29/21 08:59	12/31/21 08:22	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-17

Lab Sample ID: 890-1750-17

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	105		70 - 130	12/29/21 08:59	12/31/21 08:22	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 20:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 20:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130				12/29/21 08:37	12/30/21 20:17	1
o-Terphenyl	98		70 - 130				12/29/21 08:37	12/30/21 20:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	322		5.00		mg/Kg			12/30/21 00:21	1

Client Sample ID: BH-18

Lab Sample ID: 890-1750-18

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 08:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 08:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 08:43	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/29/21 08:59	12/31/21 08:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 08:43	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/29/21 08:59	12/31/21 08:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	12/29/21 08:59	12/31/21 08:43	1
1,4-Difluorobenzene (Surr)	96		70 - 130	12/29/21 08:59	12/31/21 08:43	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-18

Lab Sample ID: 890-1750-18

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:37	12/30/21 20:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 20:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 20:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				12/29/21 08:37	12/30/21 20:37	1
o-Terphenyl	114		70 - 130				12/29/21 08:37	12/30/21 20:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	275		5.00		mg/Kg			12/30/21 00:29	1

Client Sample ID: BH-19

Lab Sample ID: 890-1750-19

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 09:03	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/29/21 08:59	12/31/21 09:03	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/29/21 08:59	12/31/21 09:03	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/29/21 08:59	12/31/21 09:03	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/29/21 08:59	12/31/21 09:03	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/29/21 08:59	12/31/21 09:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130				12/29/21 08:59	12/31/21 09:03	1
1,4-Difluorobenzene (Surr)	101		70 - 130				12/29/21 08:59	12/31/21 09:03	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 20:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 20:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:37	12/30/21 20:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130				12/29/21 08:37	12/30/21 20:57	1
o-Terphenyl	111		70 - 130				12/29/21 08:37	12/30/21 20:57	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-19

Lab Sample ID: 890-1750-19

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	272		4.99		mg/Kg			12/30/21 00:37	1

Client Sample ID: BH-20

Lab Sample ID: 890-1750-20

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:59	12/31/21 09:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 09:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 09:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 09:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 09:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 08:59	12/31/21 09:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				12/29/21 08:59	12/31/21 09:24	1
1,4-Difluorobenzene (Surr)	104		70 - 130				12/29/21 08:59	12/31/21 09:24	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/03/22 13:55	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		12/29/21 08:37	12/30/21 21:17	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/29/21 08:37	12/30/21 21:17	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/29/21 08:37	12/30/21 21:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				12/29/21 08:37	12/30/21 21:17	1
o-Terphenyl	102		70 - 130				12/29/21 08:37	12/30/21 21:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1470		24.8		mg/Kg			12/30/21 02:34	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-21

Lab Sample ID: 890-1750-21

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/03/22 23:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/03/22 23:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/03/22 23:42	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/03/22 08:30	01/03/22 23:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/03/22 23:42	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/03/22 08:30	01/03/22 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	01/03/22 08:30	01/03/22 23:42	1
1,4-Difluorobenzene (Surr)	112		70 - 130	01/03/22 08:30	01/03/22 23:42	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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 F2	49.9		mg/Kg		12/29/21 08:40	12/30/21 23:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		12/29/21 08:40	12/30/21 23:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/30/21 23:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	12/29/21 08:40	12/30/21 23:00	1
o-Terphenyl	99		70 - 130	12/29/21 08:40	12/30/21 23:00	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1660		25.3		mg/Kg			12/30/21 03:09	5

Client Sample ID: BH-22

Lab Sample ID: 890-1750-22

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 00:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 00:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 00:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/03/22 08:30	01/04/22 00:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 00:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/03/22 08:30	01/04/22 00:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	01/03/22 08:30	01/04/22 00:02	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-22

Lab Sample ID: 890-1750-22

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	01/03/22 08:30	01/04/22 00:02	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 00:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 00:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 00:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130				12/29/21 08:40	12/31/21 00:01	1
o-Terphenyl	103		70 - 130				12/29/21 08:40	12/31/21 00:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500		24.9		mg/Kg			12/30/21 03:21	5

Client Sample ID: BH-23

Lab Sample ID: 890-1750-23

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 00:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 00:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 00:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 00:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 00:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/03/22 08:30	01/04/22 00:23	1
1,4-Difluorobenzene (Surr)	102		70 - 130	01/03/22 08:30	01/04/22 00:23	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-23

Lab Sample ID: 890-1750-23

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:40	12/31/21 00:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 00:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 00:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				12/29/21 08:40	12/31/21 00:21	1
o-Terphenyl	119		70 - 130				12/29/21 08:40	12/31/21 00:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1590		24.8		mg/Kg			12/30/21 03:33	5

Client Sample ID: BH-24

Lab Sample ID: 890-1750-24

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 00:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 00:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 00:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 00:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 00:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 00:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130				01/03/22 08:30	01/04/22 00:43	1
1,4-Difluorobenzene (Surr)	112		70 - 130				01/03/22 08:30	01/04/22 00:43	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 00:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 00:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 00:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				12/29/21 08:40	12/31/21 00:41	1
o-Terphenyl	102		70 - 130				12/29/21 08:40	12/31/21 00:41	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-24

Lab Sample ID: 890-1750-24

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1760		25.2		mg/Kg			12/30/21 03:45	5

Client Sample ID: BH-25

Lab Sample ID: 890-1750-25

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 01:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 01:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 01:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 01:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 01:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 01:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130				01/03/22 08:30	01/04/22 01:04	1
1,4-Difluorobenzene (Surr)	117		70 - 130				01/03/22 08:30	01/04/22 01:04	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 01:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 01:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 01:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				12/29/21 08:40	12/31/21 01:02	1
o-Terphenyl	126		70 - 130				12/29/21 08:40	12/31/21 01:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1640		25.0		mg/Kg			12/30/21 04:20	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-26

Lab Sample ID: 890-1750-26

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 01:24	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/03/22 08:30	01/04/22 01:24	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/03/22 08:30	01/04/22 01:24	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/03/22 08:30	01/04/22 01:24	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/03/22 08:30	01/04/22 01:24	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/03/22 08:30	01/04/22 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130	01/03/22 08:30	01/04/22 01:24	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/03/22 08:30	01/04/22 01:24	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 01:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 01:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 01:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	12/29/21 08:40	12/31/21 01:22	1
o-Terphenyl	96		70 - 130	12/29/21 08:40	12/31/21 01:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1590		24.9		mg/Kg			12/30/21 04:32	5

Client Sample ID: BH-27

Lab Sample ID: 890-1750-27

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 01:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 01:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 01:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 01:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 01:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	01/03/22 08:30	01/04/22 01:44	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-27

Lab Sample ID: 890-1750-27

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	01/03/22 08:30	01/04/22 01:44	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 01:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 01:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 01:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				12/29/21 08:40	12/31/21 01:42	1
o-Terphenyl	101		70 - 130				12/29/21 08:40	12/31/21 01:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1530		24.8		mg/Kg			12/30/21 04:44	5

Client Sample ID: BH-28

Lab Sample ID: 890-1750-28

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 02:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 02:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 02:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/03/22 08:30	01/04/22 02:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 02:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/03/22 08:30	01/04/22 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	01/03/22 08:30	01/04/22 02:05	1
1,4-Difluorobenzene (Surr)	107		70 - 130	01/03/22 08:30	01/04/22 02:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-28

Lab Sample ID: 890-1750-28

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:40	12/31/21 02:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 02:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 02:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				12/29/21 08:40	12/31/21 02:02	1
o-Terphenyl	110		70 - 130				12/29/21 08:40	12/31/21 02:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1570		25.1		mg/Kg			12/30/21 04:56	5

Client Sample ID: BH-29

Lab Sample ID: 890-1750-29

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 02:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 02:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 02:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 02:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 02:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 02:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130				01/03/22 08:30	01/04/22 02:25	1
1,4-Difluorobenzene (Surr)	96		70 - 130				01/03/22 08:30	01/04/22 02:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 02:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 02:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 02:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130				12/29/21 08:40	12/31/21 02:22	1
o-Terphenyl	96		70 - 130				12/29/21 08:40	12/31/21 02:22	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-29

Lab Sample ID: 890-1750-29

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1720		24.9		mg/Kg			12/30/21 05:08	5

Client Sample ID: BH-30

Lab Sample ID: 890-1750-30

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 02:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 02:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 02:46	1
m-Xylene & p-Xylene	0.00659		0.00399		mg/Kg		01/03/22 08:30	01/04/22 02:46	1
o-Xylene	0.00236		0.00200		mg/Kg		01/03/22 08:30	01/04/22 02:46	1
Xylenes, Total	0.00895		0.00399		mg/Kg		01/03/22 08:30	01/04/22 02:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130				01/03/22 08:30	01/04/22 02:46	1
1,4-Difluorobenzene (Surr)	92		70 - 130				01/03/22 08:30	01/04/22 02:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00895		0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 02:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 02:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 02:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				12/29/21 08:40	12/31/21 02:43	1
o-Terphenyl	93		70 - 130				12/29/21 08:40	12/31/21 02:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	119		25.0		mg/Kg			12/30/21 05:20	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-31

Lab Sample ID: 890-1750-31

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 04:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 04:07	1
Ethylbenzene	0.00238		0.00199		mg/Kg		01/03/22 08:30	01/04/22 04:07	1
m-Xylene & p-Xylene	0.00775		0.00398		mg/Kg		01/03/22 08:30	01/04/22 04:07	1
o-Xylene	0.00340		0.00199		mg/Kg		01/03/22 08:30	01/04/22 04:07	1
Xylenes, Total	0.0112		0.00398		mg/Kg		01/03/22 08:30	01/04/22 04:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	01/03/22 08:30	01/04/22 04:07	1
1,4-Difluorobenzene (Surr)	105		70 - 130	01/03/22 08:30	01/04/22 04:07	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0135		0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 03:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 03:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 03:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	12/29/21 08:40	12/31/21 03:24	1
o-Terphenyl	92		70 - 130	12/29/21 08:40	12/31/21 03:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	125		25.1		mg/Kg			12/30/21 05:55	5

Client Sample ID: BH-32

Lab Sample ID: 890-1750-32

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:30	01/04/22 04:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:30	01/04/22 04:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:30	01/04/22 04:28	1
m-Xylene & p-Xylene	0.00814		0.00402		mg/Kg		01/03/22 08:30	01/04/22 04:28	1
o-Xylene	0.00388		0.00201		mg/Kg		01/03/22 08:30	01/04/22 04:28	1
Xylenes, Total	0.0120		0.00402		mg/Kg		01/03/22 08:30	01/04/22 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130	01/03/22 08:30	01/04/22 04:28	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-32

Lab Sample ID: 890-1750-32

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	117		70 - 130	01/03/22 08:30	01/04/22 04:28	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0120		0.00402		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 03:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 03:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 03:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				12/29/21 08:40	12/31/21 03:45	1
o-Terphenyl	107		70 - 130				12/29/21 08:40	12/31/21 03:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		24.9		mg/Kg			12/30/21 06:07	5

Client Sample ID: BH-33

Lab Sample ID: 890-1750-33

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 04:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 04:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 04:48	1
m-Xylene & p-Xylene	0.00742		0.00398		mg/Kg		01/03/22 08:30	01/04/22 04:48	1
o-Xylene	0.00316		0.00199		mg/Kg		01/03/22 08:30	01/04/22 04:48	1
Xylenes, Total	0.0106		0.00398		mg/Kg		01/03/22 08:30	01/04/22 04:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	01/03/22 08:30	01/04/22 04:48	1
1,4-Difluorobenzene (Surr)	113		70 - 130	01/03/22 08:30	01/04/22 04:48	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0106		0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-33

Lab Sample ID: 890-1750-33

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:40	12/31/21 04:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 04:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 04:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				12/29/21 08:40	12/31/21 04:06	1
o-Terphenyl	91		70 - 130				12/29/21 08:40	12/31/21 04:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	127		24.9		mg/Kg			12/30/21 06:43	5

Client Sample ID: BH-34

Lab Sample ID: 890-1750-34

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 05:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 05:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 05:09	1
m-Xylene & p-Xylene	0.00535		0.00399		mg/Kg		01/03/22 08:30	01/04/22 05:09	1
o-Xylene	0.00222		0.00200		mg/Kg		01/03/22 08:30	01/04/22 05:09	1
Xylenes, Total	0.00757		0.00399		mg/Kg		01/03/22 08:30	01/04/22 05:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130				01/03/22 08:30	01/04/22 05:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130				01/03/22 08:30	01/04/22 05:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00757		0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 04:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 04:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 04:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				12/29/21 08:40	12/31/21 04:27	1
o-Terphenyl	88		70 - 130				12/29/21 08:40	12/31/21 04:27	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-34

Lab Sample ID: 890-1750-34

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	128		24.8		mg/Kg			12/30/21 06:54	5

Client Sample ID: BH-35

Lab Sample ID: 890-1750-35

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 05:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 05:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 05:29	1
m-Xylene & p-Xylene	0.00517		0.00401		mg/Kg		01/03/22 08:30	01/04/22 05:29	1
o-Xylene	0.00322		0.00200		mg/Kg		01/03/22 08:30	01/04/22 05:29	1
Xylenes, Total	0.00839		0.00401		mg/Kg		01/03/22 08:30	01/04/22 05:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130				01/03/22 08:30	01/04/22 05:29	1
1,4-Difluorobenzene (Surr)	73		70 - 130				01/03/22 08:30	01/04/22 05:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00839		0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 04:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 04:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 04:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130				12/29/21 08:40	12/31/21 04:47	1
o-Terphenyl	87		70 - 130				12/29/21 08:40	12/31/21 04:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		24.8		mg/Kg			12/30/21 07:06	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-36

Lab Sample ID: 890-1750-36

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:30	01/04/22 05:49	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:30	01/04/22 05:49	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:30	01/04/22 05:49	1
m-Xylene & p-Xylene	0.00924		0.00402		mg/Kg		01/03/22 08:30	01/04/22 05:49	1
o-Xylene	0.00330		0.00201		mg/Kg		01/03/22 08:30	01/04/22 05:49	1
Xylenes, Total	0.0125		0.00402		mg/Kg		01/03/22 08:30	01/04/22 05:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	01/03/22 08:30	01/04/22 05:49	1
1,4-Difluorobenzene (Surr)	84		70 - 130	01/03/22 08:30	01/04/22 05:49	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0125		0.00402		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 05:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 05:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 05:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	12/29/21 08:40	12/31/21 05:08	1
o-Terphenyl	93		70 - 130	12/29/21 08:40	12/31/21 05:08	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		25.0		mg/Kg			12/30/21 07:18	5

Client Sample ID: BH-37

Lab Sample ID: 890-1750-37

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 06:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 06:10	1
Ethylbenzene	0.00241		0.00200		mg/Kg		01/03/22 08:30	01/04/22 06:10	1
m-Xylene & p-Xylene	0.00937		0.00401		mg/Kg		01/03/22 08:30	01/04/22 06:10	1
o-Xylene	0.00402		0.00200		mg/Kg		01/03/22 08:30	01/04/22 06:10	1
Xylenes, Total	0.0134		0.00401		mg/Kg		01/03/22 08:30	01/04/22 06:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130	01/03/22 08:30	01/04/22 06:10	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-37

Lab Sample ID: 890-1750-37

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	01/03/22 08:30	01/04/22 06:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0158		0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 05:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 05:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 08:40	12/31/21 05:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				12/29/21 08:40	12/31/21 05:29	1
o-Terphenyl	102		70 - 130				12/29/21 08:40	12/31/21 05:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	138		25.0		mg/Kg			12/30/21 07:30	5

Client Sample ID: BH-38

Lab Sample ID: 890-1750-38

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 06:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/03/22 08:30	01/04/22 06:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/03/22 08:30	01/04/22 06:30	1
m-Xylene & p-Xylene	0.00698		0.00403		mg/Kg		01/03/22 08:30	01/04/22 06:30	1
o-Xylene	0.00368		0.00202		mg/Kg		01/03/22 08:30	01/04/22 06:30	1
Xylenes, Total	0.0107		0.00403		mg/Kg		01/03/22 08:30	01/04/22 06:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	01/03/22 08:30	01/04/22 06:30	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/03/22 08:30	01/04/22 06:30	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0107		0.00403		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-38

Lab Sample ID: 890-1750-38

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 08:40	12/31/21 05:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 05:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 05:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				12/29/21 08:40	12/31/21 05:49	1
o-Terphenyl	103		70 - 130				12/29/21 08:40	12/31/21 05:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		25.0		mg/Kg			12/30/21 07:42	5

Client Sample ID: BH-39

Lab Sample ID: 890-1750-39

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		01/03/22 08:30	01/04/22 06:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 06:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 06:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 06:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:30	01/04/22 06:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:30	01/04/22 06:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130				01/03/22 08:30	01/04/22 06:51	1
1,4-Difluorobenzene (Surr)	84		70 - 130				01/03/22 08:30	01/04/22 06:51	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 06:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 06:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 06:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 08:40	12/31/21 06:09	1
o-Terphenyl	92		70 - 130				12/29/21 08:40	12/31/21 06:09	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-39

Lab Sample ID: 890-1750-39

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260		4.95		mg/Kg			12/30/21 10:26	1

Client Sample ID: BH-40

Lab Sample ID: 890-1750-40

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 30

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		01/03/22 08:30	01/04/22 07:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 07:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/04/22 07:11	1
m-Xylene & p-Xylene	0.00538		0.00399		mg/Kg		01/03/22 08:30	01/04/22 07:11	1
o-Xylene	0.00262		0.00200		mg/Kg		01/03/22 08:30	01/04/22 07:11	1
Xylenes, Total	0.00800		0.00399		mg/Kg		01/03/22 08:30	01/04/22 07:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	145	S1+	70 - 130				01/03/22 08:30	01/04/22 07:11	1
1,4-Difluorobenzene (Surr)	125		70 - 130				01/03/22 08:30	01/04/22 07:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00800		0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 08:40	12/31/21 06:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 06:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/31/21 06:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				12/29/21 08:40	12/31/21 06:30	1
o-Terphenyl	100		70 - 130				12/29/21 08:40	12/31/21 06:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	258		5.05		mg/Kg			12/30/21 10:50	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-41

Lab Sample ID: 890-1750-41

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 30

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1	0.00202		mg/Kg		12/29/21 09:05	12/31/21 04:47	1
Toluene	<0.00202	U F1	0.00202		mg/Kg		12/29/21 09:05	12/31/21 04:47	1
Ethylbenzene	<0.00202	U F1	0.00202		mg/Kg		12/29/21 09:05	12/31/21 04:47	1
m-Xylene & p-Xylene	<0.00403	U F1	0.00403		mg/Kg		12/29/21 09:05	12/31/21 04:47	1
o-Xylene	<0.00202	U F1	0.00202		mg/Kg		12/29/21 09:05	12/31/21 04:47	1
Xylenes, Total	<0.00403	U F1	0.00403		mg/Kg		12/29/21 09:05	12/31/21 04:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130	12/29/21 09:05	12/31/21 04:47	1
1,4-Difluorobenzene (Surr)	76		70 - 130	12/29/21 09:05	12/31/21 04:47	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 12:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 12:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 12:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	12/29/21 09:08	12/30/21 12:48	1
o-Terphenyl	84		70 - 130	12/29/21 09:08	12/30/21 12:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1480		4.97		mg/Kg			12/30/21 02:11	1

Client Sample ID: BH-42

Lab Sample ID: 890-1750-42

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 30

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		12/29/21 09:05	12/31/21 05:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 05:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 05:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 05:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 05:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 05:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	12/29/21 09:05	12/31/21 05:14	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-42

Lab Sample ID: 890-1750-42

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	67	S1-	70 - 130	12/29/21 09:05	12/31/21 05:14	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 13:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 13:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 13:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				12/29/21 09:08	12/30/21 13:49	1
o-Terphenyl	87		70 - 130				12/29/21 09:08	12/30/21 13:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1540		24.8		mg/Kg			12/30/21 02:19	5

Client Sample ID: BH-43

Lab Sample ID: 890-1750-43

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 30

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		12/29/21 09:05	12/31/21 05:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 05:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 05:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 05:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 05:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 05:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	12/29/21 09:05	12/31/21 05:40	1
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130	12/29/21 09:05	12/31/21 05:40	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-43

Lab Sample ID: 890-1750-43

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 30

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		12/29/21 09:08	12/30/21 14:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 14:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 14:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130				12/29/21 09:08	12/30/21 14:10	1
o-Terphenyl	83		70 - 130				12/29/21 09:08	12/30/21 14:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.9		5.04		mg/Kg			12/30/21 02:26	1

Client Sample ID: BH-44

Lab Sample ID: 890-1750-44

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 09:05	12/31/21 06:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 06:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 06:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 06:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 06:07	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 06:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	148	S1+	70 - 130				12/29/21 09:05	12/31/21 06:07	1
1,4-Difluorobenzene (Surr)	87		70 - 130				12/29/21 09:05	12/31/21 06:07	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 14:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 14:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 14:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				12/29/21 09:08	12/30/21 14:31	1
o-Terphenyl	96		70 - 130				12/29/21 09:08	12/30/21 14:31	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-44

Lab Sample ID: 890-1750-44

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.0		4.99		mg/Kg			12/30/21 02:50	1

Client Sample ID: BH-45

Lab Sample ID: 890-1750-45

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4.5

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		12/29/21 09:05	12/31/21 06:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 06:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 06:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 06:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 06:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 06:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	153	S1+	70 - 130				12/29/21 09:05	12/31/21 06:33	1
1,4-Difluorobenzene (Surr)	86		70 - 130				12/29/21 09:05	12/31/21 06:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 14:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 14:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 14:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				12/29/21 09:08	12/30/21 14:52	1
o-Terphenyl	98		70 - 130				12/29/21 09:08	12/30/21 14:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.4		4.98		mg/Kg			12/30/21 10:58	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-1

Lab Sample ID: 890-1750-46

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 07:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 07:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 07:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 07:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 07:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 07:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	12/29/21 09:05	12/31/21 07:00	1
1,4-Difluorobenzene (Surr)	80		70 - 130	12/29/21 09:05	12/31/21 07:00	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 15:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 15:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	12/29/21 09:08	12/30/21 15:12	1
o-Terphenyl	102		70 - 130	12/29/21 09:08	12/30/21 15:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.7		4.95		mg/Kg			12/30/21 11:05	1

Client Sample ID: SW-2

Lab Sample ID: 890-1750-47

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 07:27	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/29/21 09:05	12/31/21 07:27	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/29/21 09:05	12/31/21 07:27	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		12/29/21 09:05	12/31/21 07:27	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/29/21 09:05	12/31/21 07:27	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		12/29/21 09:05	12/31/21 07:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	12/29/21 09:05	12/31/21 07:27	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-2

Lab Sample ID: 890-1750-47

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	70		70 - 130	12/29/21 09:05	12/31/21 07:27	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 15:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 15:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 15:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				12/29/21 09:08	12/30/21 15:33	1
o-Terphenyl	85		70 - 130				12/29/21 09:08	12/30/21 15:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.9		5.01		mg/Kg			12/30/21 08:10	1

Client Sample ID: SW-3

Lab Sample ID: 890-1750-48

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 07:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 07:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 07:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 07:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 07:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 07:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	12/29/21 09:05	12/31/21 07:54	1
1,4-Difluorobenzene (Surr)	94		70 - 130	12/29/21 09:05	12/31/21 07:54	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-3

Lab Sample ID: 890-1750-48

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:08	12/30/21 15:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 15:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 15:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 09:08	12/30/21 15:54	1
o-Terphenyl	78		70 - 130				12/29/21 09:08	12/30/21 15:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.3		4.98		mg/Kg			12/30/21 08:18	1

Client Sample ID: SW-4

Lab Sample ID: 890-1750-49

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 08:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 08:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 08:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 08:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 08:21	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 08:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130				12/29/21 09:05	12/31/21 08:21	1
1,4-Difluorobenzene (Surr)	86		70 - 130				12/29/21 09:05	12/31/21 08:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 16:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 16:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 09:08	12/30/21 16:14	1
o-Terphenyl	82		70 - 130				12/29/21 09:08	12/30/21 16:14	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-4

Lab Sample ID: 890-1750-49

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.7		4.99		mg/Kg			12/30/21 08:26	1

Client Sample ID: SW-5

Lab Sample ID: 890-1750-50

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 08:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 08:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 08:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 08:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 08:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 08:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	164	S1+	70 - 130				12/29/21 09:05	12/31/21 08:49	1
1,4-Difluorobenzene (Surr)	94		70 - 130				12/29/21 09:05	12/31/21 08:49	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 16:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 16:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 16:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				12/29/21 09:08	12/30/21 16:35	1
o-Terphenyl	88		70 - 130				12/29/21 09:08	12/30/21 16:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.7		5.02		mg/Kg			12/30/21 08:50	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-6

Lab Sample ID: 890-1750-51

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 10:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 10:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 10:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 10:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 10:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 10:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	148	S1+	70 - 130	12/29/21 09:05	12/31/21 10:34	1
1,4-Difluorobenzene (Surr)	84		70 - 130	12/29/21 09:05	12/31/21 10:34	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 17:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 17:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	12/29/21 09:08	12/30/21 17:16	1
o-Terphenyl	86		70 - 130	12/29/21 09:08	12/30/21 17:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.8		4.98		mg/Kg			12/30/21 08:58	1

Client Sample ID: SW-7

Lab Sample ID: 890-1750-52

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 11:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 11:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 11:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 11:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 11:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 11:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130	12/29/21 09:05	12/31/21 11:01	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-7

Lab Sample ID: 890-1750-52

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130	12/29/21 09:05	12/31/21 11:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 17:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 17:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 17:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				12/29/21 09:08	12/30/21 17:36	1
o-Terphenyl	78		70 - 130				12/29/21 09:08	12/30/21 17:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.3		4.97		mg/Kg			12/30/21 09:21	1

Client Sample ID: SW-8

Lab Sample ID: 890-1750-53

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 11:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 11:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 11:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 11:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 11:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 11:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	163	S1+	70 - 130	12/29/21 09:05	12/31/21 11:26	1
1,4-Difluorobenzene (Surr)	101		70 - 130	12/29/21 09:05	12/31/21 11:26	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-8

Lab Sample ID: 890-1750-53

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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	<49.8	U	49.8		mg/Kg		12/29/21 09:08	12/30/21 17:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/29/21 09:08	12/30/21 17:57	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/29/21 09:08	12/30/21 17:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130				12/29/21 09:08	12/30/21 17:57	1
o-Terphenyl	90		70 - 130				12/29/21 09:08	12/30/21 17:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.8		4.95		mg/Kg			12/30/21 09:29	1

Client Sample ID: SW-9

Lab Sample ID: 890-1750-54

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/29/21 09:05	12/31/21 11:53	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:05	12/31/21 11:53	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:05	12/31/21 11:53	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/29/21 09:05	12/31/21 11:53	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:05	12/31/21 11:53	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/29/21 09:05	12/31/21 11:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	151	S1+	70 - 130				12/29/21 09:05	12/31/21 11:53	1
1,4-Difluorobenzene (Surr)	71		70 - 130				12/29/21 09:05	12/31/21 11:53	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 18:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 18:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 18:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				12/29/21 09:08	12/30/21 18:18	1
o-Terphenyl	80		70 - 130				12/29/21 09:08	12/30/21 18:18	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-9

Lab Sample ID: 890-1750-54

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.5		4.96		mg/Kg			12/30/21 09:37	1

Client Sample ID: SW-10

Lab Sample ID: 890-1750-55

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:05	12/31/21 12:19	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:05	12/31/21 12:19	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:05	12/31/21 12:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/29/21 09:05	12/31/21 12:19	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:05	12/31/21 12:19	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/29/21 09:05	12/31/21 12:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130				12/29/21 09:05	12/31/21 12:19	1
1,4-Difluorobenzene (Surr)	90		70 - 130				12/29/21 09:05	12/31/21 12:19	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 18:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 18:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 18:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				12/29/21 09:08	12/30/21 18:38	1
o-Terphenyl	93		70 - 130				12/29/21 09:08	12/30/21 18:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.5		5.00		mg/Kg			12/30/21 09:45	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-11

Lab Sample ID: 890-1750-56

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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		12/29/21 09:05	12/31/21 12:46	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:05	12/31/21 12:46	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:05	12/31/21 12:46	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/29/21 09:05	12/31/21 12:46	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:05	12/31/21 12:46	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/29/21 09:05	12/31/21 12:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	142	S1+	70 - 130	12/29/21 09:05	12/31/21 12:46	1
1,4-Difluorobenzene (Surr)	84		70 - 130	12/29/21 09:05	12/31/21 12:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 18:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 18:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:08	12/30/21 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	12/29/21 09:08	12/30/21 18:59	1
o-Terphenyl	83		70 - 130	12/29/21 09:08	12/30/21 18:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.7		5.00		mg/Kg			12/30/21 09:53	1

Client Sample ID: SW-12

Lab Sample ID: 890-1750-57

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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		12/29/21 09:05	12/31/21 13:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 13:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 13:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/29/21 09:05	12/31/21 13:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 13:12	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/29/21 09:05	12/31/21 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	12/29/21 09:05	12/31/21 13:12	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-12

Lab Sample ID: 890-1750-57

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	12/29/21 09:05	12/31/21 13:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 19:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 19:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 19:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				12/29/21 09:08	12/30/21 19:19	1
o-Terphenyl	79		70 - 130				12/29/21 09:08	12/30/21 19:19	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.4		4.99		mg/Kg			12/30/21 10:01	1

Client Sample ID: SW-13

Lab Sample ID: 890-1750-58

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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		12/29/21 09:05	12/31/21 13:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 13:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 13:39	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 13:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 13:39	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130	12/29/21 09:05	12/31/21 13:39	1
1,4-Difluorobenzene (Surr)	88		70 - 130	12/29/21 09:05	12/31/21 13:39	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-13

Lab Sample ID: 890-1750-58

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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		12/29/21 09:08	12/30/21 19:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 19:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 19:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				12/29/21 09:08	12/30/21 19:40	1
o-Terphenyl	85		70 - 130				12/29/21 09:08	12/30/21 19:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.1		4.99		mg/Kg			12/30/21 15:08	1

Client Sample ID: SW-14

Lab Sample ID: 890-1750-59

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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		12/29/21 09:05	12/31/21 14:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 14:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 14:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 14:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:05	12/31/21 14:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:05	12/31/21 14:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	256	S1+	70 - 130				12/29/21 09:05	12/31/21 14:05	1
1,4-Difluorobenzene (Surr)	93		70 - 130				12/29/21 09:05	12/31/21 14:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 20:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 20:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 20:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				12/29/21 09:08	12/30/21 20:00	1
o-Terphenyl	79		70 - 130				12/29/21 09:08	12/30/21 20:00	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-14

Lab Sample ID: 890-1750-59

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.1		4.95		mg/Kg			12/30/21 15:32	1

Client Sample ID: SW-15

Lab Sample ID: 890-1750-60

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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		12/29/21 09:05	12/31/21 14:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 14:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 14:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 14:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 14:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:05	12/31/21 14:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130				12/29/21 09:05	12/31/21 14:32	1
1,4-Difluorobenzene (Surr)	74		70 - 130				12/29/21 09:05	12/31/21 14:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:08	12/30/21 20:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 20:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 20:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				12/29/21 09:08	12/30/21 20:21	1
o-Terphenyl	78		70 - 130				12/29/21 09:08	12/30/21 20:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	84.6		4.95		mg/Kg			12/30/21 15:40	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-16

Lab Sample ID: 890-1750-61

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:32	1
Toluene	<0.00200	U F1	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:32	1
Ethylbenzene	<0.00200	U F1 F2	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:32	1
m-Xylene & p-Xylene	<0.00400	U F1 F2	0.00400		mg/Kg		12/29/21 09:08	12/31/21 18:32	1
o-Xylene	<0.00200	U F1 F2	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:32	1
Xylenes, Total	<0.00400	U F1 F2	0.00400		mg/Kg		12/29/21 09:08	12/31/21 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	12/29/21 09:08	12/31/21 18:32	1
1,4-Difluorobenzene (Surr)	75		70 - 130	12/29/21 09:08	12/31/21 18:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/30/21 22:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/30/21 22:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/30/21 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	12/29/21 09:00	12/30/21 22:05	1
o-Terphenyl	84		70 - 130	12/29/21 09:00	12/30/21 22:05	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.8		5.02		mg/Kg			12/30/21 15:48	1

Client Sample ID: SW-17

Lab Sample ID: 890-1750-62

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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		12/29/21 09:08	12/31/21 18:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:59	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/29/21 09:08	12/31/21 18:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:59	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/29/21 09:08	12/31/21 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	12/29/21 09:08	12/31/21 18:59	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-17

Lab Sample ID: 890-1750-62

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	83		70 - 130	12/29/21 09:08	12/31/21 18:59	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/30/21 23:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/30/21 23:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/30/21 23:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130				12/29/21 09:00	12/30/21 23:07	1
o-Terphenyl	77		70 - 130				12/29/21 09:00	12/30/21 23:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	91.2		4.98		mg/Kg			12/30/21 15:56	1

Client Sample ID: SW-18

Lab Sample ID: 890-1750-63

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	12/31/21 19:25	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	12/31/21 19:25	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	12/31/21 19:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/29/21 09:08	12/31/21 19:25	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	12/31/21 19:25	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/29/21 09:08	12/31/21 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	12/29/21 09:08	12/31/21 19:25	1
1,4-Difluorobenzene (Surr)	91		70 - 130	12/29/21 09:08	12/31/21 19:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-18

Lab Sample ID: 890-1750-63

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:00	12/30/21 23:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/30/21 23:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/30/21 23:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 09:00	12/30/21 23:28	1
o-Terphenyl	81		70 - 130				12/29/21 09:00	12/30/21 23:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.1		4.96		mg/Kg			12/30/21 16:20	1

Client Sample ID: SW-19

Lab Sample ID: 890-1750-64

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	12/31/21 19:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 19:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 19:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 19:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 19:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 19:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130				12/29/21 09:08	12/31/21 19:52	1
1,4-Difluorobenzene (Surr)	82		70 - 130				12/29/21 09:08	12/31/21 19:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/30/21 23:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/30/21 23:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/30/21 23:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 09:00	12/30/21 23:48	1
o-Terphenyl	83		70 - 130				12/29/21 09:00	12/30/21 23:48	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-19

Lab Sample ID: 890-1750-64

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.0		5.02		mg/Kg			12/30/21 16:27	1

Client Sample ID: SW-20

Lab Sample ID: 890-1750-65

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	12/31/21 20:18	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 20:18	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 20:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 20:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 20:18	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 20:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	147	S1+	70 - 130				12/29/21 09:08	12/31/21 20:18	1
1,4-Difluorobenzene (Surr)	88		70 - 130				12/29/21 09:08	12/31/21 20:18	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 00:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 00:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 00:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 09:00	12/31/21 00:09	1
o-Terphenyl	83		70 - 130				12/29/21 09:00	12/31/21 00:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.3		5.03		mg/Kg			12/30/21 16:35	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-21

Lab Sample ID: 890-1750-66

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	12/31/21 20:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 20:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 20:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:08	12/31/21 20:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 20:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:08	12/31/21 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	213	S1+	70 - 130	12/29/21 09:08	12/31/21 20:45	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/29/21 09:08	12/31/21 20:45	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 00:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 00:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 00:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	12/29/21 09:00	12/31/21 00:30	1
o-Terphenyl	89		70 - 130	12/29/21 09:00	12/31/21 00:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2480		25.0		mg/Kg			12/30/21 16:43	5

Client Sample ID: SW-22

Lab Sample ID: 890-1750-67

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	12/31/21 21:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 21:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 21:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 21:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 21:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	145	S1+	70 - 130	12/29/21 09:08	12/31/21 21:12	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-22

Lab Sample ID: 890-1750-67

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	12/29/21 09:08	12/31/21 21:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 00:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 00:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 00:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				12/29/21 09:00	12/31/21 00:50	1
o-Terphenyl	82		70 - 130				12/29/21 09:00	12/31/21 00:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2640		24.9		mg/Kg			12/30/21 16:51	5

Client Sample ID: SW-23

Lab Sample ID: 890-1750-68

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	12/31/21 21:39	1
Toluene	0.00255		0.00199		mg/Kg		12/29/21 09:08	12/31/21 21:39	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 21:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 21:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 21:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	12/29/21 09:08	12/31/21 21:39	1
1,4-Difluorobenzene (Surr)	83		70 - 130	12/29/21 09:08	12/31/21 21:39	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-23

Lab Sample ID: 890-1750-68

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:00	12/31/21 01:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 01:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 01:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				12/29/21 09:00	12/31/21 01:11	1
o-Terphenyl	80		70 - 130				12/29/21 09:00	12/31/21 01:11	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2630		25.0		mg/Kg			12/30/21 16:59	5

Client Sample ID: SW-24

Lab Sample ID: 890-1750-69

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	12/31/21 22:06	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 22:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 22:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 22:06	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	12/31/21 22:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	12/31/21 22:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				12/29/21 09:08	12/31/21 22:06	1
1,4-Difluorobenzene (Surr)	86		70 - 130				12/29/21 09:08	12/31/21 22:06	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 01:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 01:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				12/29/21 09:00	12/31/21 01:32	1
o-Terphenyl	83		70 - 130				12/29/21 09:00	12/31/21 01:32	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-24

Lab Sample ID: 890-1750-69

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2590		25.1		mg/Kg			12/30/21 17:23	5

Client Sample ID: SW-25

Lab Sample ID: 890-1750-70

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	12/31/21 22:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 22:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 22:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:08	12/31/21 22:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 22:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:08	12/31/21 22:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130				12/29/21 09:08	12/31/21 22:32	1
1,4-Difluorobenzene (Surr)	87		70 - 130				12/29/21 09:08	12/31/21 22:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 01:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 01:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 01:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				12/29/21 09:00	12/31/21 01:53	1
o-Terphenyl	79		70 - 130				12/29/21 09:00	12/31/21 01:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2610		24.8		mg/Kg			12/30/21 17:31	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-26

Lab Sample ID: 890-1750-71

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 00:18	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:08	01/01/22 00:18	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:08	01/01/22 00:18	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/29/21 09:08	01/01/22 00:18	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:08	01/01/22 00:18	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/29/21 09:08	01/01/22 00:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	189	S1+	70 - 130	12/29/21 09:08	01/01/22 00:18	1
1,4-Difluorobenzene (Surr)	76		70 - 130	12/29/21 09:08	01/01/22 00:18	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 02:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 02:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 02:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	12/29/21 09:00	12/31/21 02:35	1
o-Terphenyl	85		70 - 130	12/29/21 09:00	12/31/21 02:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2550		25.1		mg/Kg			12/30/21 17:55	5

Client Sample ID: SW-27

Lab Sample ID: 890-1750-72

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 00:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	01/01/22 00:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	01/01/22 00:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/29/21 09:08	01/01/22 00:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	01/01/22 00:45	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/29/21 09:08	01/01/22 00:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	12/29/21 09:08	01/01/22 00:45	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-27

Lab Sample ID: 890-1750-72

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	142	S1+	70 - 130	12/29/21 09:08	01/01/22 00:45	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 02:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 02:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				12/29/21 09:00	12/31/21 02:57	1
o-Terphenyl	80		70 - 130				12/29/21 09:00	12/31/21 02:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2640		25.3		mg/Kg			12/30/21 18:03	5

Client Sample ID: SW-28

Lab Sample ID: 890-1750-73

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 01:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 01:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 01:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/29/21 09:08	01/01/22 01:12	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 01:12	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/29/21 09:08	01/01/22 01:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	12/29/21 09:08	01/01/22 01:12	1
1,4-Difluorobenzene (Surr)	90		70 - 130	12/29/21 09:08	01/01/22 01:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-28

Lab Sample ID: 890-1750-73

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:00	12/31/21 03:18	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/29/21 09:00	12/31/21 03:18	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/29/21 09:00	12/31/21 03:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				12/29/21 09:00	12/31/21 03:18	1
o-Terphenyl	83		70 - 130				12/29/21 09:00	12/31/21 03:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2590		25.0		mg/Kg			12/30/21 18:11	5

Client Sample ID: SW-29

Lab Sample ID: 890-1750-74

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 01:38	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:08	01/01/22 01:38	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:08	01/01/22 01:38	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/29/21 09:08	01/01/22 01:38	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/29/21 09:08	01/01/22 01:38	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/29/21 09:08	01/01/22 01:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	254	S1+	70 - 130				12/29/21 09:08	01/01/22 01:38	1
1,4-Difluorobenzene (Surr)	87		70 - 130				12/29/21 09:08	01/01/22 01:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 03:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 03:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 03:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/29/21 09:00	12/31/21 03:38	1
o-Terphenyl	83		70 - 130				12/29/21 09:00	12/31/21 03:38	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-29

Lab Sample ID: 890-1750-74

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2410		49.8		mg/Kg			12/30/21 18:19	10

Client Sample ID: SW-30

Lab Sample ID: 890-1750-75

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 02:05	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 02:05	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 02:05	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/29/21 09:08	01/01/22 02:05	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/29/21 09:08	01/01/22 02:05	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/29/21 09:08	01/01/22 02:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130				12/29/21 09:08	01/01/22 02:05	1
1,4-Difluorobenzene (Surr)	92		70 - 130				12/29/21 09:08	01/01/22 02:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 03:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 03:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 03:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				12/29/21 09:00	12/31/21 03:59	1
o-Terphenyl	88		70 - 130				12/29/21 09:00	12/31/21 03:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1270		49.9		mg/Kg			12/30/21 18:27	10

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-31

Lab Sample ID: 890-1750-76

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 02:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 02:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 02:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	01/01/22 02:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 02:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	01/01/22 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	12/29/21 09:08	01/01/22 02:31	1
1,4-Difluorobenzene (Surr)	86		70 - 130	12/29/21 09:08	01/01/22 02:31	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 04:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 04:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 09:00	12/31/21 04:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	12/29/21 09:00	12/31/21 04:20	1
o-Terphenyl	82		70 - 130	12/29/21 09:00	12/31/21 04:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	731		50.5		mg/Kg			12/31/21 13:19	10

Client Sample ID: SW-32

Lab Sample ID: 890-1750-77

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 02:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 02:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 02:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	01/01/22 02:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 02:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	01/01/22 02:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	203	S1+	70 - 130	12/29/21 09:08	01/01/22 02:58	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-32

Lab Sample ID: 890-1750-77

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	12/29/21 09:08	01/01/22 02:58	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 04:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 04:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 04:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130				12/29/21 09:00	12/31/21 04:40	1
o-Terphenyl	91		70 - 130				12/29/21 09:00	12/31/21 04:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1250		49.7		mg/Kg			12/31/21 13:27	10

Client Sample ID: SW-33

Lab Sample ID: 890-1750-78

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 03:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	01/01/22 03:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	01/01/22 03:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/29/21 09:08	01/01/22 03:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	01/01/22 03:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/29/21 09:08	01/01/22 03:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	12/29/21 09:08	01/01/22 03:24	1
1,4-Difluorobenzene (Surr)	94		70 - 130	12/29/21 09:08	01/01/22 03:24	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-33

Lab Sample ID: 890-1750-78

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:00	12/31/21 05:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 05:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 05:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				12/29/21 09:00	12/31/21 05:01	1
o-Terphenyl	88		70 - 130				12/29/21 09:00	12/31/21 05:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1420		49.5		mg/Kg			12/31/21 13:36	10

Client Sample ID: SW-34

Lab Sample ID: 890-1750-79

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 03:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 03:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 03:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	01/01/22 03:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/29/21 09:08	01/01/22 03:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/29/21 09:08	01/01/22 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130				12/29/21 09:08	01/01/22 03:51	1
1,4-Difluorobenzene (Surr)	92		70 - 130				12/29/21 09:08	01/01/22 03:51	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 05:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 05:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 05:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				12/29/21 09:00	12/31/21 05:22	1
o-Terphenyl	88		70 - 130				12/29/21 09:00	12/31/21 05:22	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-34

Lab Sample ID: 890-1750-79

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1450		50.4		mg/Kg			12/31/21 13:44	10

Client Sample ID: SW-35

Lab Sample ID: 890-1750-80

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/29/21 09:08	01/01/22 04:18	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/29/21 09:08	01/01/22 04:18	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/29/21 09:08	01/01/22 04:18	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		12/29/21 09:08	01/01/22 04:18	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/29/21 09:08	01/01/22 04:18	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		12/29/21 09:08	01/01/22 04:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				12/29/21 09:08	01/01/22 04:18	1
1,4-Difluorobenzene (Surr)	88		70 - 130				12/29/21 09:08	01/01/22 04:18	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 09:00	12/31/21 05:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 05:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/31/21 05:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				12/29/21 09:00	12/31/21 05:43	1
o-Terphenyl	85		70 - 130				12/29/21 09:00	12/31/21 05:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1190		49.9		mg/Kg			12/31/21 14:09	10

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-36

Lab Sample ID: 890-1750-81

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		01/03/22 08:26	01/03/22 15:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 15:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 15:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 15:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 15:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	01/03/22 08:26	01/03/22 15:33	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/03/22 08:26	01/03/22 15:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/29/21 10:17	12/31/21 12:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		12/29/21 10:17	12/31/21 12:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/29/21 10:17	12/31/21 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	12/29/21 10:17	12/31/21 12:25	1
o-Terphenyl	102		70 - 130	12/29/21 10:17	12/31/21 12:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1730		24.9		mg/Kg			12/31/21 14:18	5

Client Sample ID: SW-37

Lab Sample ID: 890-1750-82

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		01/03/22 08:26	01/03/22 15:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 15:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 15:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 15:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 15:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	01/03/22 08:26	01/03/22 15:54	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-37

Lab Sample ID: 890-1750-82

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	01/03/22 08:26	01/03/22 15:54	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/29/21 10:17	12/31/21 13:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 10:17	12/31/21 13:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 10:17	12/31/21 13:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130				12/29/21 10:17	12/31/21 13:27	1
o-Terphenyl	93		70 - 130				12/29/21 10:17	12/31/21 13:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1710		24.8		mg/Kg			12/31/21 14:26	5

Client Sample ID: SW-38

Lab Sample ID: 890-1750-83

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		01/03/22 08:26	01/03/22 17:16	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/03/22 08:26	01/03/22 17:16	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/03/22 08:26	01/03/22 17:16	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/03/22 08:26	01/03/22 17:16	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/03/22 08:26	01/03/22 17:16	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/03/22 08:26	01/03/22 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	01/03/22 08:26	01/03/22 17:16	1
1,4-Difluorobenzene (Surr)	102		70 - 130	01/03/22 08:26	01/03/22 17:16	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-38

Lab Sample ID: 890-1750-83

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		12/28/21 13:53	12/29/21 15:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U **	50.0		mg/Kg		12/28/21 13:53	12/29/21 15:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/28/21 13:53	12/29/21 15:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130				12/28/21 13:53	12/29/21 15:44	1
o-Terphenyl	134	S1+	70 - 130				12/28/21 13:53	12/29/21 15:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1750		25.1		mg/Kg			12/31/21 14:34	5

Client Sample ID: SW-39

Lab Sample ID: 890-1750-84

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		01/03/22 08:26	01/03/22 17:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 17:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 17:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 17:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 17:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 17:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130				01/03/22 08:26	01/03/22 17:36	1
1,4-Difluorobenzene (Surr)	87		70 - 130				01/03/22 08:26	01/03/22 17:36	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/28/21 13:53	12/29/21 16:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U **	49.9		mg/Kg		12/28/21 13:53	12/29/21 16:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/28/21 13:53	12/29/21 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				12/28/21 13:53	12/29/21 16:05	1
o-Terphenyl	109		70 - 130				12/28/21 13:53	12/29/21 16:05	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-39

Lab Sample ID: 890-1750-84

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1670		24.9		mg/Kg			12/31/21 14:43	5

Client Sample ID: SW-40

Lab Sample ID: 890-1750-85

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 4 - 30

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		01/03/22 08:26	01/03/22 17:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 17:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 17:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 17:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 17:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 17:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130				01/03/22 08:26	01/03/22 17:57	1
1,4-Difluorobenzene (Surr)	99		70 - 130				01/03/22 08:26	01/03/22 17:57	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/03/22 13:55	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		12/28/21 13:53	12/29/21 16:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9		mg/Kg		12/28/21 13:53	12/29/21 16:26	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/28/21 13:53	12/29/21 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				12/28/21 13:53	12/29/21 16:26	1
o-Terphenyl	103		70 - 130				12/28/21 13:53	12/29/21 16:26	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1620	F1	25.0		mg/Kg			12/31/21 14:51	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-41

Lab Sample ID: 890-1750-86

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		01/03/22 08:26	01/03/22 18:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:26	01/03/22 18:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:26	01/03/22 18:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/03/22 08:26	01/03/22 18:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:26	01/03/22 18:17	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/03/22 08:26	01/03/22 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	01/03/22 08:26	01/03/22 18:17	1
1,4-Difluorobenzene (Surr)	95		70 - 130	01/03/22 08:26	01/03/22 18:17	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/03/22 13:55	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		12/28/21 13:53	12/29/21 16:47	1
Diesel Range Organics (Over C10-C28)	<49.8	U *	49.8		mg/Kg		12/28/21 13:53	12/29/21 16:47	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/28/21 13:53	12/29/21 16:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	12/28/21 13:53	12/29/21 16:47	1
o-Terphenyl	125		70 - 130	12/28/21 13:53	12/29/21 16:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.0		5.02		mg/Kg			12/31/21 15:16	1

Client Sample ID: SW-42

Lab Sample ID: 890-1750-87

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 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		01/03/22 08:26	01/03/22 18:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 18:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 18:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 18:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 08:26	01/03/22 18:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 08:26	01/03/22 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	01/03/22 08:26	01/03/22 18:38	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-42

Lab Sample ID: 890-1750-87

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	01/03/22 08:26	01/03/22 18:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	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		12/28/21 08:30	12/28/21 22:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/28/21 08:30	12/28/21 22:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/28/21 08:30	12/28/21 22:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				12/28/21 08:30	12/28/21 22:45	1
o-Terphenyl	85		70 - 130				12/28/21 08:30	12/28/21 22:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.2		4.98		mg/Kg			12/31/21 15:24	1

Client Sample ID: SW-43

Lab Sample ID: 890-1750-88

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:26	01/03/22 18:58	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:26	01/03/22 18:58	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:26	01/03/22 18:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/03/22 08:26	01/03/22 18:58	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/03/22 08:26	01/03/22 18:58	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/03/22 08:26	01/03/22 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	01/03/22 08:26	01/03/22 18:58	1
1,4-Difluorobenzene (Surr)	97		70 - 130	01/03/22 08:26	01/03/22 18:58	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-43

Lab Sample ID: 890-1750-88

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Sample Depth: 0 - 4.5

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		12/28/21 08:30	12/28/21 23:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/28/21 08:30	12/28/21 23:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/28/21 08:30	12/28/21 23:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				12/28/21 08:30	12/28/21 23:08	1
o-Terphenyl	87		70 - 130				12/28/21 08:30	12/28/21 23:08	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.1		4.97		mg/Kg			12/31/21 15:49	1

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
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)
890-1750-1	BH-1	101	87
890-1750-1 MS	BH-1	119	90
890-1750-1 MSD	BH-1	149 S1+	117
890-1750-2	BH-2	125	101
890-1750-3	BH-3	131 S1+	91
890-1750-4	BH-4	115	74
890-1750-5	BH-5	104	104
890-1750-6	BH-6	116	63 S1-
890-1750-7	BH-7	121	106
890-1750-8	BH-8	107	82
890-1750-9	BH-9	107	73
890-1750-10	BH-10	115	96
890-1750-11	BH-11	146 S1+	103
890-1750-12	BH-12	124	88
890-1750-13	BH-13	120	106
890-1750-14	BH-14	87	86
890-1750-15	BH-15	122	85
890-1750-16	BH-16	111	93
890-1750-17	BH-17	119	105
890-1750-18	BH-18	125	96
890-1750-19	BH-19	112	101
890-1750-20	BH-20	124	104
890-1750-21	BH-21	120	112
890-1750-21 MS	BH-21	147 S1+	134 S1+
890-1750-21 MSD	BH-21	145 S1+	127
890-1750-22	BH-22	112	106
890-1750-23	BH-23	111	102
890-1750-24	BH-24	126	112
890-1750-25	BH-25	130	117
890-1750-26	BH-26	150 S1+	101
890-1750-27	BH-27	130	103
890-1750-28	BH-28	114	107
890-1750-29	BH-29	113	96
890-1750-30	BH-30	130	92
890-1750-31	BH-31	125	105
890-1750-32	BH-32	143 S1+	117
890-1750-33	BH-33	132 S1+	113
890-1750-34	BH-34	112	96
890-1750-35	BH-35	131 S1+	73
890-1750-36	BH-36	131 S1+	84
890-1750-37	BH-37	135 S1+	106
890-1750-38	BH-38	122	101
890-1750-39	BH-39	128	84
890-1750-40	BH-40	145 S1+	125
890-1750-41	BH-41	152 S1+	76
890-1750-41 MS	BH-41	140 S1+	74
890-1750-41 MSD	BH-41	152 S1+	84
890-1750-42	BH-42	125	67 S1-
890-1750-43	BH-43	133 S1+	68 S1-

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.

Job ID: 890-1750-1

Project/Site: Hallertau 5 Fed #4

SDG: Lea County NM

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1750-44	BH-44	148 S1+	87
890-1750-45	BH-45	153 S1+	86
890-1750-46	SW-1	119	80
890-1750-47	SW-2	127	70
890-1750-48	SW-3	133 S1+	94
890-1750-49	SW-4	122	86
890-1750-50	SW-5	164 S1+	94
890-1750-51	SW-6	148 S1+	84
890-1750-52	SW-7	149 S1+	99
890-1750-53	SW-8	163 S1+	101
890-1750-54	SW-9	151 S1+	71
890-1750-55	SW-10	128	90
890-1750-56	SW-11	142 S1+	84
890-1750-57	SW-12	129	88
890-1750-58	SW-13	134 S1+	88
890-1750-59	SW-14	256 S1+	93
890-1750-60	SW-15	135 S1+	74
890-1750-61	SW-16	123	75
890-1750-61 MS	SW-16	138 S1+	84
890-1750-61 MSD	SW-16	61 S1-	14 S1-
890-1750-62	SW-17	131 S1+	83
890-1750-63	SW-18	132 S1+	91
890-1750-64	SW-19	136 S1+	82
890-1750-65	SW-20	147 S1+	88
890-1750-66	SW-21	213 S1+	93
890-1750-67	SW-22	145 S1+	98
890-1750-68	SW-23	95	83
890-1750-69	SW-24	124	86
890-1750-70	SW-25	135 S1+	87
890-1750-71	SW-26	189 S1+	76
890-1750-72	SW-27	127	142 S1+
890-1750-73	SW-28	88	90
890-1750-74	SW-29	254 S1+	87
890-1750-75	SW-30	133 S1+	92
890-1750-76	SW-31	127	86
890-1750-77	SW-32	203 S1+	88
890-1750-78	SW-33	122	94
890-1750-79	SW-34	125	92
890-1750-80	SW-35	124	88
890-1750-81	SW-36	109	90
890-1750-82	SW-37	119	85
890-1750-83	SW-38	131 S1+	102
890-1750-84	SW-39	133 S1+	87
890-1750-85	SW-40	126	99
890-1750-86	SW-41	121	95
890-1750-87	SW-42	104	85
890-1750-88	SW-43	120	97
LCS 880-15695/1-A	Lab Control Sample	121	105
LCS 880-15707/1-A	Lab Control Sample	113	102
LCS 880-15710/1-A	Lab Control Sample	166 S1+	99

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
LCS 880-15712/1-A	Lab Control Sample	154 S1+	121
LCS 880-15713/1-A	Lab Control Sample	119	115
LCSD 880-15695/2-A	Lab Control Sample Dup	123	113
LCSD 880-15707/2-A	Lab Control Sample Dup	133 S1+	116
LCSD 880-15710/2-A	Lab Control Sample Dup	174 S1+	125
LCSD 880-15712/2-A	Lab Control Sample Dup	152 S1+	117
LCSD 880-15713/2-A	Lab Control Sample Dup	128	112
MB 880-15695/5-A	Method Blank	112	102
MB 880-15707/5-A	Method Blank	104	102
MB 880-15710/5-A	Method Blank	91	80
MB 880-15712/5-A	Method Blank	84	89
MB 880-15713/5-A	Method Blank	101	93
MB 880-15736/5-A	Method Blank	103	105
MB 880-15781/8	Method Blank	88	79
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)
880-9663-A-21-C MS	Matrix Spike	100	85
880-9663-A-21-D MSD	Matrix Spike Duplicate	100	84
890-1750-1	BH-1	91	91
890-1750-1 MS	BH-1	86	76
890-1750-1 MSD	BH-1	85	77
890-1750-2	BH-2	92	90
890-1750-3	BH-3	91	92
890-1750-4	BH-4	92	94
890-1750-5	BH-5	91	91
890-1750-6	BH-6	91	91
890-1750-7	BH-7	94	92
890-1750-8	BH-8	92	90
890-1750-9	BH-9	90	90
890-1750-10	BH-10	90	91
890-1750-11	BH-11	95	93
890-1750-12	BH-12	88	89
890-1750-13	BH-13	96	97
890-1750-14	BH-14	92	91
890-1750-15	BH-15	89	89
890-1750-16	BH-16	93	92
890-1750-17	BH-17	94	98
890-1750-18	BH-18	112	114
890-1750-19	BH-19	111	111
890-1750-20	BH-20	97	102
890-1750-21	BH-21	93	99
890-1750-21 MS	BH-21	84	80

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.

Job ID: 890-1750-1

Project/Site: Hallertau 5 Fed #4

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)				
890-1750-21 MSD	BH-21	97	93				
890-1750-22	BH-22	96	103				
890-1750-23	BH-23	112	119				
890-1750-24	BH-24	100	102				
890-1750-25	BH-25	120	126				
890-1750-26	BH-26	93	96				
890-1750-27	BH-27	97	101				
890-1750-28	BH-28	105	110				
890-1750-29	BH-29	94	96				
890-1750-30	BH-30	95	93				
890-1750-31	BH-31	92	92				
890-1750-32	BH-32	106	107				
890-1750-33	BH-33	90	91				
890-1750-34	BH-34	87	88				
890-1750-35	BH-35	84	87				
890-1750-36	BH-36	89	93				
890-1750-37	BH-37	99	102				
890-1750-38	BH-38	99	103				
890-1750-39	BH-39	89	92				
890-1750-40	BH-40	97	100				
890-1750-41	BH-41	90	84				
890-1750-41 MS	BH-41	79	76				
890-1750-41 MSD	BH-41	79	76				
890-1750-42	BH-42	93	87				
890-1750-43	BH-43	90	83				
890-1750-44	BH-44	98	96				
890-1750-45	BH-45	101	98				
890-1750-46	SW-1	111	102				
890-1750-47	SW-2	92	85				
890-1750-48	SW-3	89	78				
890-1750-49	SW-4	89	82				
890-1750-50	SW-5	97	88				
890-1750-51	SW-6	93	86				
890-1750-52	SW-7	86	78				
890-1750-53	SW-8	94	90				
890-1750-54	SW-9	85	80				
890-1750-55	SW-10	98	93				
890-1750-56	SW-11	90	83				
890-1750-57	SW-12	85	79				
890-1750-58	SW-13	91	85				
890-1750-59	SW-14	87	79				
890-1750-60	SW-15	86	78				
890-1750-61	SW-16	90	84				
890-1750-61 MS	SW-16	78	69 S1-				
890-1750-61 MSD	SW-16	75	65 S1-				
890-1750-62	SW-17	84	77				
890-1750-63	SW-18	89	81				
890-1750-64	SW-19	89	83				
890-1750-65	SW-20	89	83				
890-1750-66	SW-21	93	89				

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
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)
890-1750-67	SW-22	88	82
890-1750-68	SW-23	88	80
890-1750-69	SW-24	87	83
890-1750-70	SW-25	86	79
890-1750-71	SW-26	89	85
890-1750-72	SW-27	85	80
890-1750-73	SW-28	87	83
890-1750-74	SW-29	89	83
890-1750-75	SW-30	92	88
890-1750-76	SW-31	88	82
890-1750-77	SW-32	96	91
890-1750-78	SW-33	93	88
890-1750-79	SW-34	93	88
890-1750-80	SW-35	91	85
890-1750-81	SW-36	91	102
890-1750-81 MS	SW-36	73	74
890-1750-81 MSD	SW-36	73	74
890-1750-82	SW-37	82	93
890-1750-83	SW-38	136 S1+	134 S1+
890-1750-84	SW-39	112	109
890-1750-85	SW-40	107	103
890-1750-86	SW-41	128	125
890-1750-87	SW-42	88	85
890-1750-88	SW-43	89	87
890-1751-A-1-B MS	Matrix Spike	110	93
890-1751-A-1-C MSD	Matrix Spike Duplicate	110	93
LCS 880-15607/2-A	Lab Control Sample	491 S1+	477 S1+
LCS 880-15699/2-A	Lab Control Sample	96	80
LCS 880-15702/2-A	Lab Control Sample	92	74
LCS 880-15722/2-A	Lab Control Sample	107	101
LCSD 880-15607/3-A	Lab Control Sample Dup	500 S1+	487 S1+
LCSD 880-15699/3-A	Lab Control Sample Dup	98	78
LCSD 880-15702/3-A	Lab Control Sample Dup	92	73
LCSD 880-15722/3-A	Lab Control Sample Dup	111	106
MB 880-15607/1-A	Method Blank	100	106
MB 880-15699/1-A	Method Blank	91	98
MB 880-15702/1-A	Method Blank	98	104
MB 880-15722/1-A	Method Blank	102	127
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-15659/2-A	Lab Control Sample	100	96
LCS 880-15708/2-A	Lab Control Sample	86	83

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
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	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-15711/2-A	Lab Control Sample	97	88
LCSD 880-15659/3-A	Lab Control Sample Dup	121	123
LCSD 880-15708/3-A	Lab Control Sample Dup	98	97
LCSD 880-15711/3-A	Lab Control Sample Dup	104	101
MB 880-15659/1-A	Method Blank	102	105
MB 880-15708/1-A	Method Blank	93	90
MB 880-15711/1-A	Method Blank	97	96

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15695/5-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:26	01/03/22 12:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:26	01/03/22 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:26	01/03/22 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/03/22 08:26	01/03/22 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:26	01/03/22 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/03/22 08:26	01/03/22 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	01/03/22 08:26	01/03/22 12:28	1
1,4-Difluorobenzene (Surr)	102		70 - 130	01/03/22 08:26	01/03/22 12:28	1

Lab Sample ID: LCS 880-15695/1-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07196		mg/Kg		72	70 - 130
Toluene	0.100	0.07285		mg/Kg		73	70 - 130
Ethylbenzene	0.100	0.07540		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	0.200	0.1547		mg/Kg		77	70 - 130
o-Xylene	0.100	0.08083		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-15695/2-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15695

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07588		mg/Kg		76	70 - 130	5	35
Toluene	0.100	0.07630		mg/Kg		76	70 - 130	5	35
Ethylbenzene	0.100	0.07958		mg/Kg		80	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1648		mg/Kg		82	70 - 130	6	35
o-Xylene	0.100	0.08517		mg/Kg		85	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: MB 880-15707/5-A

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15707

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 01:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 01:33	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-15707/5-A

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15707

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 01:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/29/21 08:59	12/31/21 01:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 08:59	12/31/21 01:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/29/21 08:59	12/31/21 01:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	12/29/21 08:59	12/31/21 01:33	1
1,4-Difluorobenzene (Surr)	102		70 - 130	12/29/21 08:59	12/31/21 01:33	1

Lab Sample ID: LCS 880-15707/1-A

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15707

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07154		mg/Kg		72	70 - 130
Toluene	0.100	0.07140		mg/Kg		71	70 - 130
Ethylbenzene	0.100	0.07100		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	0.200	0.1495		mg/Kg		75	70 - 130
o-Xylene	0.100	0.07993		mg/Kg		80	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-15707/2-A

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15707

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07793		mg/Kg		78	70 - 130	9	35
Toluene	0.100	0.08232		mg/Kg		82	70 - 130	14	35
Ethylbenzene	0.100	0.08572		mg/Kg		86	70 - 130	19	35
m-Xylene & p-Xylene	0.200	0.1762		mg/Kg		88	70 - 130	16	35
o-Xylene	0.100	0.09017		mg/Kg		90	70 - 130	12	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Lab Sample ID: 890-1750-1 MS

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 15707

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1 F2	0.0998	0.03197	F1	mg/Kg		31	70 - 130
Toluene	<0.00199	U F1	0.0998	0.04258	F1	mg/Kg		42	70 - 130
Ethylbenzene	<0.00199	U F1	0.0998	0.04610	F1	mg/Kg		45	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.09674	F1	mg/Kg		48	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: 890-1750-1 MS

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 15707

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	<0.00199	U F1	0.0998	0.05063	F1	mg/Kg		51	70 - 130
Surrogate									
	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	119		70 - 130						
1,4-Difluorobenzene (Surr)	90		70 - 130						

Lab Sample ID: 890-1750-1 MSD

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 15707

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.0994	0.05064	F1 F2	mg/Kg		50	70 - 130	45	35
Toluene	<0.00199	U F1	0.0994	0.05398	F1	mg/Kg		54	70 - 130	24	35
Ethylbenzene	<0.00199	U F1	0.0994	0.05676	F1	mg/Kg		56	70 - 130	21	35
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1206	F1	mg/Kg		61	70 - 130	22	35
o-Xylene	<0.00199	U F1	0.0994	0.05500	F1	mg/Kg		55	70 - 130	8	35
Surrogate											
	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	117		70 - 130								

Lab Sample ID: MB 880-15710/5-A

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 04:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 04:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 04:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/29/21 09:05	12/31/21 04:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:05	12/31/21 04:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/29/21 09:05	12/31/21 04:20	1
Surrogate									
	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130				12/29/21 09:05	12/31/21 04:20	1
1,4-Difluorobenzene (Surr)	80		70 - 130				12/29/21 09:05	12/31/21 04:20	1

Lab Sample ID: LCS 880-15710/1-A

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09021		mg/Kg		90	70 - 130
Toluene	0.100	0.07452		mg/Kg		75	70 - 130
Ethylbenzene	0.100	0.07577		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	0.200	0.1523		mg/Kg		76	70 - 130
o-Xylene	0.100	0.07281		mg/Kg		73	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-15710/1-A

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15710

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	166	S1+	70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-15710/2-A

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15710

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08596		mg/Kg		86	70 - 130	5	35
Toluene	0.100	0.07276		mg/Kg		73	70 - 130	2	35
Ethylbenzene	0.100	0.07965		mg/Kg		80	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1605		mg/Kg		80	70 - 130	5	35
o-Xylene	0.100	0.07725		mg/Kg		77	70 - 130	6	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	174	S1+	70 - 130
1,4-Difluorobenzene (Surr)	125		70 - 130

Lab Sample ID: 890-1750-41 MS

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: BH-41

Prep Type: Total/NA

Prep Batch: 15710

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U F1	0.0998	0.008282	F1	mg/Kg		8	70 - 130
Toluene	<0.00202	U F1	0.0998	0.01199	F1	mg/Kg		12	70 - 130
Ethylbenzene	<0.00202	U F1	0.0998	0.01434	F1	mg/Kg		14	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.200	0.02786	F1	mg/Kg		14	70 - 130
o-Xylene	<0.00202	U F1	0.0998	0.01480	F1	mg/Kg		15	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130
1,4-Difluorobenzene (Surr)	74		70 - 130

Lab Sample ID: 890-1750-41 MSD

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: BH-41

Prep Type: Total/NA

Prep Batch: 15710

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0994	0.008597	F1	mg/Kg		9	70 - 130	4	35
Toluene	<0.00202	U F1	0.0994	0.01083	F1	mg/Kg		11	70 - 130	10	35
Ethylbenzene	<0.00202	U F1	0.0994	0.01095	F1	mg/Kg		11	70 - 130	27	35
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.02699	F1	mg/Kg		14	70 - 130	3	35
o-Xylene	<0.00202	U F1	0.0994	0.01586	F1	mg/Kg		16	70 - 130	7	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-15712/5-A

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15712

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/29/21 09:08	12/31/21 18:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 09:08	12/31/21 18:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/29/21 09:08	12/31/21 18:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	12/29/21 09:08	12/31/21 18:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	12/29/21 09:08	12/31/21 18:05	1

Lab Sample ID: LCS 880-15712/1-A

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15712

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07664		mg/Kg		77	70 - 130
Toluene	0.100	0.08007		mg/Kg		80	70 - 130
Ethylbenzene	0.100	0.08232		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	0.200	0.1651		mg/Kg		83	70 - 130
o-Xylene	0.100	0.08377		mg/Kg		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	154	S1+	70 - 130
1,4-Difluorobenzene (Surr)	121		70 - 130

Lab Sample ID: LCSD 880-15712/2-A

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15712

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.07693		mg/Kg		77	70 - 130	0	35
Toluene	0.100	0.07653		mg/Kg		77	70 - 130	5	35
Ethylbenzene	0.100	0.08311		mg/Kg		83	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1661		mg/Kg		83	70 - 130	1	35
o-Xylene	0.100	0.08396		mg/Kg		84	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130
1,4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: 890-1750-61 MS

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: SW-16

Prep Type: Total/NA

Prep Batch: 15712

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F1	0.0998	0.01055	F1	mg/Kg		11	70 - 130
Toluene	<0.00200	U F1	0.0998	0.008111	F1	mg/Kg		8	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: 890-1750-61 MS

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: SW-16

Prep Type: Total/NA

Prep Batch: 15712

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U F1 F2	0.0998	0.01734	F1	mg/Kg		17	70 - 130
m-Xylene & p-Xylene	<0.00400	U F1 F2	0.200	0.02529	F1	mg/Kg		13	70 - 130
o-Xylene	<0.00200	U F1 F2	0.0998	0.01192	F1	mg/Kg		12	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: 890-1750-61 MSD

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: SW-16

Prep Type: Total/NA

Prep Batch: 15712

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0994	0.01241	F1	mg/Kg		12	70 - 130	16	35
Toluene	<0.00200	U F1	0.0994	0.01149	F1	mg/Kg		12	70 - 130	35	35
Ethylbenzene	<0.00200	U F1 F2	0.0994	0.003913	F1 F2	mg/Kg		4	70 - 130	126	35
m-Xylene & p-Xylene	<0.00400	U F1 F2	0.199	<0.00398	U F1 F2	mg/Kg		1	70 - 130	158	35
o-Xylene	<0.00200	U F1 F2	0.0994	0.004403	F1 F2	mg/Kg		4	70 - 130	92	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	61	S1-	70 - 130
1,4-Difluorobenzene (Surr)	14	S1-	70 - 130

Lab Sample ID: MB 880-15713/5-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/03/22 23:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/03/22 23:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/03/22 23:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/03/22 08:30	01/03/22 23:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 08:30	01/03/22 23:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/03/22 08:30	01/03/22 23:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/03/22 08:30	01/03/22 23:20	1
1,4-Difluorobenzene (Surr)	93		70 - 130	01/03/22 08:30	01/03/22 23:20	1

Lab Sample ID: LCS 880-15713/1-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07694		mg/Kg		77	70 - 130
Toluene	0.100	0.07635		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.08234		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	0.200	0.1690		mg/Kg		84	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-15713/1-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	0.100	0.08608		mg/Kg		86	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

Lab Sample ID: LCSD 880-15713/2-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15713

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07537		mg/Kg		75	70 - 130	2	35
Toluene	0.100	0.07627		mg/Kg		76	70 - 130	0	35
Ethylbenzene	0.100	0.08236		mg/Kg		82	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1656		mg/Kg		83	70 - 130	2	35
o-Xylene	0.100	0.08428		mg/Kg		84	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-1750-21 MS

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: BH-21

Prep Type: Total/NA

Prep Batch: 15713

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0998	0.07952		mg/Kg		79	70 - 130
Toluene	<0.00200	U	0.0998	0.07483		mg/Kg		75	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.08029		mg/Kg		80	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1633		mg/Kg		82	70 - 130
o-Xylene	<0.00200	U	0.0998	0.08702		mg/Kg		87	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	147	S1+	70 - 130
1,4-Difluorobenzene (Surr)	134	S1+	70 - 130

Lab Sample ID: 890-1750-21 MSD

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: BH-21

Prep Type: Total/NA

Prep Batch: 15713

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.07944		mg/Kg		79	70 - 130	0	35
Toluene	<0.00200	U	0.0994	0.07740		mg/Kg		78	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.0994	0.07986		mg/Kg		80	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1677		mg/Kg		84	70 - 130	3	35
o-Xylene	<0.00200	U	0.0994	0.08812		mg/Kg		89	70 - 130	1	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: 890-1750-21 MSD

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: BH-21

Prep Type: Total/NA

Prep Batch: 15713

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	145	S1+	70 - 130
1,4-Difluorobenzene (Surr)	127		70 - 130

Lab Sample ID: MB 880-15736/5-A

Matrix: Solid

Analysis Batch: 15788

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15736

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/29/21 14:29	12/30/21 14:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/29/21 14:29	12/30/21 14:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/29/21 14:29	12/30/21 14:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/29/21 14:29	12/30/21 14:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/29/21 14:29	12/30/21 14:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/29/21 14:29	12/30/21 14:42	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				12/29/21 14:29	12/30/21 14:42	1
1,4-Difluorobenzene (Surr)	105		70 - 130				12/29/21 14:29	12/30/21 14:42	1

Lab Sample ID: MB 880-15781/8

Matrix: Solid

Analysis Batch: 15781

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			12/30/21 14:47	1
Toluene	<0.00200	U	0.00200		mg/Kg			12/30/21 14:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			12/30/21 14:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			12/30/21 14:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			12/30/21 14:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			12/30/21 14:47	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130					12/30/21 14:47	1
1,4-Difluorobenzene (Surr)	79		70 - 130					12/30/21 14:47	1

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

Lab Sample ID: MB 880-15607/1-A

Matrix: Solid

Analysis Batch: 15643

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15607

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/28/21 08:30	12/28/21 14:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/28/21 08:30	12/28/21 14:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/28/21 08:30	12/28/21 14:01	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-15607/1-A

Matrix: Solid

Analysis Batch: 15643

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15607

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	12/28/21 08:30	12/28/21 14:01	1
o-Terphenyl	106		70 - 130	12/28/21 08:30	12/28/21 14:01	1

Lab Sample ID: LCS 880-15607/2-A

Matrix: Solid

Analysis Batch: 15643

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15607

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1142		mg/Kg		114	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1144		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	491	S1+	70 - 130
o-Terphenyl	477	S1+	70 - 130

Lab Sample ID: LCSD 880-15607/3-A

Matrix: Solid

Analysis Batch: 15643

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15607

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1182		mg/Kg		118	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1168		mg/Kg		117	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	500	S1+	70 - 130
o-Terphenyl	487	S1+	70 - 130

Lab Sample ID: 880-9663-A-21-C MS

Matrix: Solid

Analysis Batch: 15643

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 15607

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	996	872.4		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	822.4		mg/Kg		83	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	85		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: 880-9663-A-21-D MSD

Matrix: Solid

Analysis Batch: 15643

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 15607

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	998	905.6		mg/Kg		89	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	819.4		mg/Kg		82	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	84		70 - 130								

Lab Sample ID: MB 880-15659/1-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15659

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		12/28/21 13:53	12/29/21 10:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/28/21 13:53	12/29/21 10:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/28/21 13:53	12/29/21 10:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				12/28/21 13:53	12/29/21 10:02	1
o-Terphenyl	105		70 - 130				12/28/21 13:53	12/29/21 10:02	1

Lab Sample ID: LCS 880-15659/2-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1088		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1110		mg/Kg		111	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	100		70 - 130						
o-Terphenyl	96		70 - 130						

Lab Sample ID: LCSD 880-15659/3-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1188		mg/Kg		119	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1311	*+	mg/Kg		131	70 - 130	17	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-15659/3-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15659

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 890-1751-A-1-B MS

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 15659

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	1990	2008		mg/Kg		101	70 - 130	
Diesel Range Organics (Over C10-C28)	64.4	F1 *+	1990	1989		mg/Kg		97	70 - 130	
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	110		70 - 130							
o-Terphenyl	93		70 - 130							

Lab Sample ID: 890-1751-A-1-C MSD

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 15659

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	2000	2003		mg/Kg		100	70 - 130	0	20	
Diesel Range Organics (Over C10-C28)	64.4	F1 *+	2000	1983		mg/Kg		96	70 - 130	0	20	
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	110		70 - 130									
o-Terphenyl	93		70 - 130									

Lab Sample ID: MB 880-15699/1-A

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15699

	MB	MB									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 10:56	1		
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 10:56	1		
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:37	12/30/21 10:56	1		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
1-Chlorooctane	91		70 - 130				12/29/21 08:37	12/30/21 10:56	1		
o-Terphenyl	98		70 - 130				12/29/21 08:37	12/30/21 10:56	1		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-15699/2-A

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15699

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec.		
			Added	Result	Qualifier			Limits			
Gasoline Range Organics (GRO)-C6-C10			1000	919.9		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1183		mg/Kg		118	70 - 130		

Lab Sample ID: LCSD 880-15699/3-A

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15699

			Spike	LCSD	LCSD				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	902.7		mg/Kg		90	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1150		mg/Kg		115	70 - 130	3	20
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	98		70 - 130								
o-Terphenyl	78		70 - 130								

Lab Sample ID: 890-1750-1 MS

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 15699

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	996	459.7	F1	mg/Kg		44	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	428.3	F1	mg/Kg		41	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	86		70 - 130								
o-Terphenyl	76		70 - 130								

Lab Sample ID: 890-1750-1 MSD

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 15699

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	999	468.7	F1	mg/Kg		45	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	437.9	F1	mg/Kg		41	70 - 130	2	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: 890-1750-1 MSD

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: BH-1

Prep Type: Total/NA

Prep Batch: 15699

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	77		70 - 130

Lab Sample ID: MB 880-15702/1-A

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15702

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/30/21 21:58	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/30/21 21:58	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 08:40	12/30/21 21:58	1	
	MB	MB								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil	Fac
1-Chlorooctane	98		70 - 130				12/29/21 08:40	12/30/21 21:58	1	
<i>o</i> -Terphenyl	104		70 - 130				12/29/21 08:40	12/30/21 21:58	1	

Lab Sample ID: LCS 880-15702/2-A

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15702

		Spike	LCS	LCS					%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10		1000	905.4		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)		1000	1043		mg/Kg		104	70 - 130		
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	92		70 - 130							
<i>o</i> -Terphenyl	74		70 - 130							

Lab Sample ID: LCSD 880-15702/3-A

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15702

		Spike	LCSD	LCSD					%Rec.		RPD
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10		1000	859.3		mg/Kg		86	70 - 130	5	20	
Diesel Range Organics (Over C10-C28)		1000	1054		mg/Kg		105	70 - 130	1	20	
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	92		70 - 130								
<i>o</i> -Terphenyl	73		70 - 130								

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: 890-1750-21 MS

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: BH-21

Prep Type: Total/NA

Prep Batch: 15702

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 F2	996	448.4	F1	mg/Kg		43	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	440.1	F1	mg/Kg		44	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	84		70 - 130						
o-Terphenyl	80		70 - 130						

Lab Sample ID: 890-1750-21 MSD

Matrix: Solid

Analysis Batch: 15779

Client Sample ID: BH-21

Prep Type: Total/NA

Prep Batch: 15702

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 F2	999	689.7	F1 F2	mg/Kg		67	70 - 130	42	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	518.2	F1	mg/Kg		52	70 - 130	16	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	97		70 - 130								
o-Terphenyl	93		70 - 130								

Lab Sample ID: MB 880-15708/1-A

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15708

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		12/29/21 09:00	12/30/21 21:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/30/21 21:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:00	12/30/21 21:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				12/29/21 09:00	12/30/21 21:02	1
o-Terphenyl	90		70 - 130				12/29/21 09:00	12/30/21 21:02	1

Lab Sample ID: LCS 880-15708/2-A

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	897.9		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)	1000	811.0		mg/Kg		81	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-15708/2-A

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15708

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: LCSD 880-15708/3-A

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15708

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1007		mg/Kg		101	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	867.6		mg/Kg		87	70 - 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: 890-1750-61 MS

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: SW-16

Prep Type: Total/NA

Prep Batch: 15708

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1030		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	835.2		mg/Kg		84	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-1750-61 MSD

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: SW-16

Prep Type: Total/NA

Prep Batch: 15708

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	999	975.0		mg/Kg		95	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	807.3		mg/Kg		81	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	75		70 - 130
o-Terphenyl	65	S1-	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-15711/1-A

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15711

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		12/29/21 09:08	12/30/21 11:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 11:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 09:08	12/30/21 11:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				12/29/21 09:08	12/30/21 11:45	1
o-Terphenyl	96		70 - 130				12/29/21 09:08	12/30/21 11:45	1

Lab Sample ID: LCS 880-15711/2-A

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	970.3		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	889.9		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	97		70 - 130				
o-Terphenyl	88		70 - 130				

Lab Sample ID: LCSD 880-15711/3-A

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15711

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	959.3		mg/Kg		96	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	877.3		mg/Kg		88	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	104		70 - 130						
o-Terphenyl	101		70 - 130						

Lab Sample ID: 890-1750-41 MS

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: BH-41

Prep Type: Total/NA

Prep Batch: 15711

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	996	966.0		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	858.5		mg/Kg		86	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: 890-1750-41 MS

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: BH-41

Prep Type: Total/NA

Prep Batch: 15711

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	76		70 - 130

Lab Sample ID: 890-1750-41 MSD

Matrix: Solid

Analysis Batch: 15783

Client Sample ID: BH-41

Prep Type: Total/NA

Prep Batch: 15711

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	999	991.3		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	869.9		mg/Kg		87	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	76		70 - 130

Lab Sample ID: MB 880-15722/1-A

Matrix: Solid

Analysis Batch: 15825

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15722

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		12/29/21 10:17	12/31/21 11:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/29/21 10:17	12/31/21 11:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/29/21 10:17	12/31/21 11:25	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	102		70 - 130	12/29/21 10:17	12/31/21 11:25	1			
o-Terphenyl	127		70 - 130	12/29/21 10:17	12/31/21 11:25	1			

Lab Sample ID: LCS 880-15722/2-A

Matrix: Solid

Analysis Batch: 15825

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	947.1		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1174		mg/Kg		117	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	101		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-15722/3-A

Matrix: Solid

Analysis Batch: 15825

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15722

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1006		mg/Kg		101	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	1218		mg/Kg		122	70 - 130	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	111		70 - 130						
o-Terphenyl	106		70 - 130						

Lab Sample ID: 890-1750-81 MS

Matrix: Solid

Analysis Batch: 15825

Client Sample ID: SW-36

Prep Type: Total/NA

Prep Batch: 15722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	996	435.4	F1	mg/Kg		44	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	401.0	F1	mg/Kg		40	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	73		70 - 130								
o-Terphenyl	74		70 - 130								

Lab Sample ID: 890-1750-81 MSD

Matrix: Solid

Analysis Batch: 15825

Client Sample ID: SW-36

Prep Type: Total/NA

Prep Batch: 15722

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	999	450.5	F1	mg/Kg		45	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	407.9	F1	mg/Kg		41	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	73		70 - 130								
o-Terphenyl	74		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15511/1-A

Matrix: Solid

Analysis Batch: 15745

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			12/29/21 20:49	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-15511/2-A

Matrix: Solid

Analysis Batch: 15745

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	242.5		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-15511/3-A

Matrix: Solid

Analysis Batch: 15745

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	242.9		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-1750-1 MS

Matrix: Solid

Analysis Batch: 15745

Client Sample ID: BH-1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	171	F1	248	408.3		mg/Kg		96	90 - 110

Lab Sample ID: 890-1750-1 MSD

Matrix: Solid

Analysis Batch: 15745

Client Sample ID: BH-1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	171	F1	248	391.8	F1	mg/Kg		89	90 - 110	4	20

Lab Sample ID: 890-1750-11 MS

Matrix: Solid

Analysis Batch: 15745

Client Sample ID: BH-11

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	295		250	530.8		mg/Kg		95	90 - 110

Lab Sample ID: 890-1750-11 MSD

Matrix: Solid

Analysis Batch: 15745

Client Sample ID: BH-11

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	295		250	529.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: MB 880-15512/1-A

Matrix: Solid

Analysis Batch: 15747

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			12/30/21 01:58	1

Lab Sample ID: LCS 880-15512/2-A

Matrix: Solid

Analysis Batch: 15747

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	244.1		mg/Kg		98	90 - 110

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-15512/3-A

Matrix: Solid

Analysis Batch: 15747

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	236.3		mg/Kg		95	90 - 110	3	20

Lab Sample ID: 890-1750-20 MS

Matrix: Solid

Analysis Batch: 15747

Client Sample ID: BH-20

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1470		1240	2804		mg/Kg		107	90 - 110		

Lab Sample ID: 890-1750-20 MSD

Matrix: Solid

Analysis Batch: 15747

Client Sample ID: BH-20

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1470		1240	2697		mg/Kg		99	90 - 110	4	20

Lab Sample ID: 890-1750-30 MS

Matrix: Solid

Analysis Batch: 15747

Client Sample ID: BH-30

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	119		1250	1364		mg/Kg		100	90 - 110		

Lab Sample ID: 890-1750-30 MSD

Matrix: Solid

Analysis Batch: 15747

Client Sample ID: BH-30

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	119		1250	1362		mg/Kg		100	90 - 110	0	20

Lab Sample ID: MB 880-15513/1-A

Matrix: Solid

Analysis Batch: 15748

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			12/30/21 01:16	1

Lab Sample ID: LCS 880-15513/2-A

Matrix: Solid

Analysis Batch: 15748

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	235.0		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-15513/3-A

Matrix: Solid

Analysis Batch: 15748

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	235.8		mg/Kg		94	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1750-39 MS

Matrix: Solid

Analysis Batch: 15748

Client Sample ID: BH-39

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	260		248	506.2		mg/Kg		99	90 - 110		

Lab Sample ID: 890-1750-39 MSD

Matrix: Solid

Analysis Batch: 15748

Client Sample ID: BH-39

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	260		248	499.2		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 890-1750-49 MS

Matrix: Solid

Analysis Batch: 15748

Client Sample ID: SW-4

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	17.7		250	259.8		mg/Kg		97	90 - 110		

Lab Sample ID: 890-1750-49 MSD

Matrix: Solid

Analysis Batch: 15748

Client Sample ID: SW-4

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	17.7		250	256.2		mg/Kg		96	90 - 110	1	20

Lab Sample ID: MB 880-15514/1-A

Matrix: Solid

Analysis Batch: 15750

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			12/30/21 14:44	1

Lab Sample ID: LCS 880-15514/2-A

Matrix: Solid

Analysis Batch: 15750

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	250	265.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-15514/3-A

Matrix: Solid

Analysis Batch: 15750

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	261.5		mg/Kg		105	90 - 110	1	20

Lab Sample ID: 890-1750-58 MS

Matrix: Solid

Analysis Batch: 15750

Client Sample ID: SW-13

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	37.1		250	310.4		mg/Kg		110	90 - 110		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1750-58 MSD

Matrix: Solid

Analysis Batch: 15750

Client Sample ID: SW-13

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	37.1		250	308.3		mg/Kg		109	90 - 110	1	20

Lab Sample ID: 890-1750-68 MS

Matrix: Solid

Analysis Batch: 15750

Client Sample ID: SW-23

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2630		1250	3817		mg/Kg		95	90 - 110		

Lab Sample ID: 890-1750-68 MSD

Matrix: Solid

Analysis Batch: 15750

Client Sample ID: SW-23

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2630		1250	3820		mg/Kg		95	90 - 110	0	20

Lab Sample ID: MB 880-15515/1-A

Matrix: Solid

Analysis Batch: 15751

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			12/31/21 12:29	1

Lab Sample ID: LCS 880-15515/2-A

Matrix: Solid

Analysis Batch: 15751

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	250	253.3		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-15515/3-A

Matrix: Solid

Analysis Batch: 15751

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	252.8		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-1750-85 MS

Matrix: Solid

Analysis Batch: 15751

Client Sample ID: SW-40

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1620	F1	1250	3083	F1	mg/Kg		117	90 - 110		

Lab Sample ID: 890-1750-85 MSD

Matrix: Solid

Analysis Batch: 15751

Client Sample ID: SW-40

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1620	F1	1250	3136	F1	mg/Kg		122	90 - 110	2	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC VOA

Prep Batch: 15695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-81	SW-36	Total/NA	Solid	5035	
890-1750-82	SW-37	Total/NA	Solid	5035	
890-1750-83	SW-38	Total/NA	Solid	5035	
890-1750-84	SW-39	Total/NA	Solid	5035	
890-1750-85	SW-40	Total/NA	Solid	5035	
890-1750-86	SW-41	Total/NA	Solid	5035	
890-1750-87	SW-42	Total/NA	Solid	5035	
890-1750-88	SW-43	Total/NA	Solid	5035	
MB 880-15695/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15695/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15695/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 15707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Total/NA	Solid	5035	
890-1750-2	BH-2	Total/NA	Solid	5035	
890-1750-3	BH-3	Total/NA	Solid	5035	
890-1750-4	BH-4	Total/NA	Solid	5035	
890-1750-5	BH-5	Total/NA	Solid	5035	
890-1750-6	BH-6	Total/NA	Solid	5035	
890-1750-7	BH-7	Total/NA	Solid	5035	
890-1750-8	BH-8	Total/NA	Solid	5035	
890-1750-9	BH-9	Total/NA	Solid	5035	
890-1750-10	BH-10	Total/NA	Solid	5035	
890-1750-11	BH-11	Total/NA	Solid	5035	
890-1750-12	BH-12	Total/NA	Solid	5035	
890-1750-13	BH-13	Total/NA	Solid	5035	
890-1750-14	BH-14	Total/NA	Solid	5035	
890-1750-15	BH-15	Total/NA	Solid	5035	
890-1750-16	BH-16	Total/NA	Solid	5035	
890-1750-17	BH-17	Total/NA	Solid	5035	
890-1750-18	BH-18	Total/NA	Solid	5035	
890-1750-19	BH-19	Total/NA	Solid	5035	
890-1750-20	BH-20	Total/NA	Solid	5035	
MB 880-15707/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15707/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15707/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1750-1 MS	BH-1	Total/NA	Solid	5035	
890-1750-1 MSD	BH-1	Total/NA	Solid	5035	

Prep Batch: 15710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-41	BH-41	Total/NA	Solid	5035	
890-1750-42	BH-42	Total/NA	Solid	5035	
890-1750-43	BH-43	Total/NA	Solid	5035	
890-1750-44	BH-44	Total/NA	Solid	5035	
890-1750-45	BH-45	Total/NA	Solid	5035	
890-1750-46	SW-1	Total/NA	Solid	5035	
890-1750-47	SW-2	Total/NA	Solid	5035	
890-1750-48	SW-3	Total/NA	Solid	5035	
890-1750-49	SW-4	Total/NA	Solid	5035	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC VOA (Continued)

Prep Batch: 15710 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-50	SW-5	Total/NA	Solid	5035	
890-1750-51	SW-6	Total/NA	Solid	5035	
890-1750-52	SW-7	Total/NA	Solid	5035	
890-1750-53	SW-8	Total/NA	Solid	5035	
890-1750-54	SW-9	Total/NA	Solid	5035	
890-1750-55	SW-10	Total/NA	Solid	5035	
890-1750-56	SW-11	Total/NA	Solid	5035	
890-1750-57	SW-12	Total/NA	Solid	5035	
890-1750-58	SW-13	Total/NA	Solid	5035	
890-1750-59	SW-14	Total/NA	Solid	5035	
890-1750-60	SW-15	Total/NA	Solid	5035	
MB 880-15710/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15710/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15710/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1750-41 MS	BH-41	Total/NA	Solid	5035	
890-1750-41 MSD	BH-41	Total/NA	Solid	5035	

Prep Batch: 15712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-61	SW-16	Total/NA	Solid	5035	
890-1750-62	SW-17	Total/NA	Solid	5035	
890-1750-63	SW-18	Total/NA	Solid	5035	
890-1750-64	SW-19	Total/NA	Solid	5035	
890-1750-65	SW-20	Total/NA	Solid	5035	
890-1750-66	SW-21	Total/NA	Solid	5035	
890-1750-67	SW-22	Total/NA	Solid	5035	
890-1750-68	SW-23	Total/NA	Solid	5035	
890-1750-69	SW-24	Total/NA	Solid	5035	
890-1750-70	SW-25	Total/NA	Solid	5035	
890-1750-71	SW-26	Total/NA	Solid	5035	
890-1750-72	SW-27	Total/NA	Solid	5035	
890-1750-73	SW-28	Total/NA	Solid	5035	
890-1750-74	SW-29	Total/NA	Solid	5035	
890-1750-75	SW-30	Total/NA	Solid	5035	
890-1750-76	SW-31	Total/NA	Solid	5035	
890-1750-77	SW-32	Total/NA	Solid	5035	
890-1750-78	SW-33	Total/NA	Solid	5035	
890-1750-79	SW-34	Total/NA	Solid	5035	
890-1750-80	SW-35	Total/NA	Solid	5035	
MB 880-15712/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15712/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15712/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1750-61 MS	SW-16	Total/NA	Solid	5035	
890-1750-61 MSD	SW-16	Total/NA	Solid	5035	

Prep Batch: 15713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-21	BH-21	Total/NA	Solid	5035	
890-1750-22	BH-22	Total/NA	Solid	5035	
890-1750-23	BH-23	Total/NA	Solid	5035	
890-1750-24	BH-24	Total/NA	Solid	5035	

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QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC VOA (Continued)

Prep Batch: 15713 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-25	BH-25	Total/NA	Solid	5035	
890-1750-26	BH-26	Total/NA	Solid	5035	
890-1750-27	BH-27	Total/NA	Solid	5035	
890-1750-28	BH-28	Total/NA	Solid	5035	
890-1750-29	BH-29	Total/NA	Solid	5035	
890-1750-30	BH-30	Total/NA	Solid	5035	
890-1750-31	BH-31	Total/NA	Solid	5035	
890-1750-32	BH-32	Total/NA	Solid	5035	
890-1750-33	BH-33	Total/NA	Solid	5035	
890-1750-34	BH-34	Total/NA	Solid	5035	
890-1750-35	BH-35	Total/NA	Solid	5035	
890-1750-36	BH-36	Total/NA	Solid	5035	
890-1750-37	BH-37	Total/NA	Solid	5035	
890-1750-38	BH-38	Total/NA	Solid	5035	
890-1750-39	BH-39	Total/NA	Solid	5035	
890-1750-40	BH-40	Total/NA	Solid	5035	
MB 880-15713/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15713/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15713/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1750-21 MS	BH-21	Total/NA	Solid	5035	
890-1750-21 MSD	BH-21	Total/NA	Solid	5035	

Prep Batch: 15736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15736/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 15781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-41	BH-41	Total/NA	Solid	8021B	15710
890-1750-42	BH-42	Total/NA	Solid	8021B	15710
890-1750-43	BH-43	Total/NA	Solid	8021B	15710
890-1750-44	BH-44	Total/NA	Solid	8021B	15710
890-1750-45	BH-45	Total/NA	Solid	8021B	15710
890-1750-46	SW-1	Total/NA	Solid	8021B	15710
890-1750-47	SW-2	Total/NA	Solid	8021B	15710
890-1750-48	SW-3	Total/NA	Solid	8021B	15710
890-1750-49	SW-4	Total/NA	Solid	8021B	15710
890-1750-50	SW-5	Total/NA	Solid	8021B	15710
890-1750-51	SW-6	Total/NA	Solid	8021B	15710
890-1750-52	SW-7	Total/NA	Solid	8021B	15710
890-1750-53	SW-8	Total/NA	Solid	8021B	15710
890-1750-54	SW-9	Total/NA	Solid	8021B	15710
890-1750-55	SW-10	Total/NA	Solid	8021B	15710
890-1750-56	SW-11	Total/NA	Solid	8021B	15710
890-1750-57	SW-12	Total/NA	Solid	8021B	15710
890-1750-58	SW-13	Total/NA	Solid	8021B	15710
890-1750-59	SW-14	Total/NA	Solid	8021B	15710
890-1750-60	SW-15	Total/NA	Solid	8021B	15710
890-1750-61	SW-16	Total/NA	Solid	8021B	15712
890-1750-62	SW-17	Total/NA	Solid	8021B	15712
890-1750-63	SW-18	Total/NA	Solid	8021B	15712

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QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 15781 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-64	SW-19	Total/NA	Solid	8021B	15712
890-1750-65	SW-20	Total/NA	Solid	8021B	15712
890-1750-66	SW-21	Total/NA	Solid	8021B	15712
890-1750-67	SW-22	Total/NA	Solid	8021B	15712
890-1750-68	SW-23	Total/NA	Solid	8021B	15712
890-1750-69	SW-24	Total/NA	Solid	8021B	15712
890-1750-70	SW-25	Total/NA	Solid	8021B	15712
890-1750-71	SW-26	Total/NA	Solid	8021B	15712
890-1750-72	SW-27	Total/NA	Solid	8021B	15712
890-1750-73	SW-28	Total/NA	Solid	8021B	15712
890-1750-74	SW-29	Total/NA	Solid	8021B	15712
890-1750-75	SW-30	Total/NA	Solid	8021B	15712
890-1750-76	SW-31	Total/NA	Solid	8021B	15712
890-1750-77	SW-32	Total/NA	Solid	8021B	15712
890-1750-78	SW-33	Total/NA	Solid	8021B	15712
890-1750-79	SW-34	Total/NA	Solid	8021B	15712
890-1750-80	SW-35	Total/NA	Solid	8021B	15712
MB 880-15710/5-A	Method Blank	Total/NA	Solid	8021B	15710
MB 880-15712/5-A	Method Blank	Total/NA	Solid	8021B	15712
MB 880-15781/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-15710/1-A	Lab Control Sample	Total/NA	Solid	8021B	15710
LCS 880-15712/1-A	Lab Control Sample	Total/NA	Solid	8021B	15712
LCSD 880-15710/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15710
LCSD 880-15712/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15712
890-1750-41 MS	BH-41	Total/NA	Solid	8021B	15710
890-1750-41 MSD	BH-41	Total/NA	Solid	8021B	15710
890-1750-61 MS	SW-16	Total/NA	Solid	8021B	15712
890-1750-61 MSD	SW-16	Total/NA	Solid	8021B	15712

Analysis Batch: 15788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Total/NA	Solid	8021B	15707
890-1750-2	BH-2	Total/NA	Solid	8021B	15707
890-1750-3	BH-3	Total/NA	Solid	8021B	15707
890-1750-4	BH-4	Total/NA	Solid	8021B	15707
890-1750-5	BH-5	Total/NA	Solid	8021B	15707
890-1750-6	BH-6	Total/NA	Solid	8021B	15707
890-1750-7	BH-7	Total/NA	Solid	8021B	15707
890-1750-8	BH-8	Total/NA	Solid	8021B	15707
890-1750-9	BH-9	Total/NA	Solid	8021B	15707
890-1750-10	BH-10	Total/NA	Solid	8021B	15707
890-1750-11	BH-11	Total/NA	Solid	8021B	15707
890-1750-12	BH-12	Total/NA	Solid	8021B	15707
890-1750-13	BH-13	Total/NA	Solid	8021B	15707
890-1750-14	BH-14	Total/NA	Solid	8021B	15707
890-1750-15	BH-15	Total/NA	Solid	8021B	15707
890-1750-16	BH-16	Total/NA	Solid	8021B	15707
890-1750-17	BH-17	Total/NA	Solid	8021B	15707
890-1750-18	BH-18	Total/NA	Solid	8021B	15707
890-1750-19	BH-19	Total/NA	Solid	8021B	15707
890-1750-20	BH-20	Total/NA	Solid	8021B	15707

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 15788 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15707/5-A	Method Blank	Total/NA	Solid	8021B	15707
MB 880-15736/5-A	Method Blank	Total/NA	Solid	8021B	15736
LCS 880-15707/1-A	Lab Control Sample	Total/NA	Solid	8021B	15707
LCSD 880-15707/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15707
890-1750-1 MS	BH-1	Total/NA	Solid	8021B	15707
890-1750-1 MSD	BH-1	Total/NA	Solid	8021B	15707

Analysis Batch: 15845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-21	BH-21	Total/NA	Solid	8021B	15713
890-1750-22	BH-22	Total/NA	Solid	8021B	15713
890-1750-23	BH-23	Total/NA	Solid	8021B	15713
890-1750-24	BH-24	Total/NA	Solid	8021B	15713
890-1750-25	BH-25	Total/NA	Solid	8021B	15713
890-1750-26	BH-26	Total/NA	Solid	8021B	15713
890-1750-27	BH-27	Total/NA	Solid	8021B	15713
890-1750-28	BH-28	Total/NA	Solid	8021B	15713
890-1750-29	BH-29	Total/NA	Solid	8021B	15713
890-1750-30	BH-30	Total/NA	Solid	8021B	15713
890-1750-31	BH-31	Total/NA	Solid	8021B	15713
890-1750-32	BH-32	Total/NA	Solid	8021B	15713
890-1750-33	BH-33	Total/NA	Solid	8021B	15713
890-1750-34	BH-34	Total/NA	Solid	8021B	15713
890-1750-35	BH-35	Total/NA	Solid	8021B	15713
890-1750-36	BH-36	Total/NA	Solid	8021B	15713
890-1750-37	BH-37	Total/NA	Solid	8021B	15713
890-1750-38	BH-38	Total/NA	Solid	8021B	15713
890-1750-39	BH-39	Total/NA	Solid	8021B	15713
890-1750-40	BH-40	Total/NA	Solid	8021B	15713
890-1750-81	SW-36	Total/NA	Solid	8021B	15695
890-1750-82	SW-37	Total/NA	Solid	8021B	15695
890-1750-83	SW-38	Total/NA	Solid	8021B	15695
890-1750-84	SW-39	Total/NA	Solid	8021B	15695
890-1750-85	SW-40	Total/NA	Solid	8021B	15695
890-1750-86	SW-41	Total/NA	Solid	8021B	15695
890-1750-87	SW-42	Total/NA	Solid	8021B	15695
890-1750-88	SW-43	Total/NA	Solid	8021B	15695
MB 880-15695/5-A	Method Blank	Total/NA	Solid	8021B	15695
MB 880-15713/5-A	Method Blank	Total/NA	Solid	8021B	15713
LCS 880-15695/1-A	Lab Control Sample	Total/NA	Solid	8021B	15695
LCS 880-15713/1-A	Lab Control Sample	Total/NA	Solid	8021B	15713
LCSD 880-15695/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15695
LCSD 880-15713/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15713
890-1750-21 MS	BH-21	Total/NA	Solid	8021B	15713
890-1750-21 MSD	BH-21	Total/NA	Solid	8021B	15713

Analysis Batch: 15908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Total/NA	Solid	Total BTEX	
890-1750-2	BH-2	Total/NA	Solid	Total BTEX	
890-1750-3	BH-3	Total/NA	Solid	Total BTEX	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 15908 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-4	BH-4	Total/NA	Solid	Total BTEX	
890-1750-5	BH-5	Total/NA	Solid	Total BTEX	
890-1750-6	BH-6	Total/NA	Solid	Total BTEX	
890-1750-7	BH-7	Total/NA	Solid	Total BTEX	
890-1750-8	BH-8	Total/NA	Solid	Total BTEX	
890-1750-9	BH-9	Total/NA	Solid	Total BTEX	
890-1750-10	BH-10	Total/NA	Solid	Total BTEX	
890-1750-11	BH-11	Total/NA	Solid	Total BTEX	
890-1750-12	BH-12	Total/NA	Solid	Total BTEX	
890-1750-13	BH-13	Total/NA	Solid	Total BTEX	
890-1750-14	BH-14	Total/NA	Solid	Total BTEX	
890-1750-15	BH-15	Total/NA	Solid	Total BTEX	
890-1750-16	BH-16	Total/NA	Solid	Total BTEX	
890-1750-17	BH-17	Total/NA	Solid	Total BTEX	
890-1750-18	BH-18	Total/NA	Solid	Total BTEX	
890-1750-19	BH-19	Total/NA	Solid	Total BTEX	
890-1750-20	BH-20	Total/NA	Solid	Total BTEX	
890-1750-21	BH-21	Total/NA	Solid	Total BTEX	
890-1750-22	BH-22	Total/NA	Solid	Total BTEX	
890-1750-23	BH-23	Total/NA	Solid	Total BTEX	
890-1750-24	BH-24	Total/NA	Solid	Total BTEX	
890-1750-25	BH-25	Total/NA	Solid	Total BTEX	
890-1750-26	BH-26	Total/NA	Solid	Total BTEX	
890-1750-27	BH-27	Total/NA	Solid	Total BTEX	
890-1750-28	BH-28	Total/NA	Solid	Total BTEX	
890-1750-29	BH-29	Total/NA	Solid	Total BTEX	
890-1750-30	BH-30	Total/NA	Solid	Total BTEX	
890-1750-31	BH-31	Total/NA	Solid	Total BTEX	
890-1750-32	BH-32	Total/NA	Solid	Total BTEX	
890-1750-33	BH-33	Total/NA	Solid	Total BTEX	
890-1750-34	BH-34	Total/NA	Solid	Total BTEX	
890-1750-35	BH-35	Total/NA	Solid	Total BTEX	
890-1750-36	BH-36	Total/NA	Solid	Total BTEX	
890-1750-37	BH-37	Total/NA	Solid	Total BTEX	
890-1750-38	BH-38	Total/NA	Solid	Total BTEX	
890-1750-39	BH-39	Total/NA	Solid	Total BTEX	
890-1750-40	BH-40	Total/NA	Solid	Total BTEX	
890-1750-41	BH-41	Total/NA	Solid	Total BTEX	
890-1750-42	BH-42	Total/NA	Solid	Total BTEX	
890-1750-43	BH-43	Total/NA	Solid	Total BTEX	
890-1750-44	BH-44	Total/NA	Solid	Total BTEX	
890-1750-45	BH-45	Total/NA	Solid	Total BTEX	
890-1750-46	SW-1	Total/NA	Solid	Total BTEX	
890-1750-47	SW-2	Total/NA	Solid	Total BTEX	
890-1750-48	SW-3	Total/NA	Solid	Total BTEX	
890-1750-49	SW-4	Total/NA	Solid	Total BTEX	
890-1750-50	SW-5	Total/NA	Solid	Total BTEX	
890-1750-51	SW-6	Total/NA	Solid	Total BTEX	
890-1750-52	SW-7	Total/NA	Solid	Total BTEX	
890-1750-53	SW-8	Total/NA	Solid	Total BTEX	
890-1750-54	SW-9	Total/NA	Solid	Total BTEX	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 15908 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-55	SW-10	Total/NA	Solid	Total BTEX	
890-1750-56	SW-11	Total/NA	Solid	Total BTEX	
890-1750-57	SW-12	Total/NA	Solid	Total BTEX	
890-1750-58	SW-13	Total/NA	Solid	Total BTEX	
890-1750-59	SW-14	Total/NA	Solid	Total BTEX	
890-1750-60	SW-15	Total/NA	Solid	Total BTEX	
890-1750-61	SW-16	Total/NA	Solid	Total BTEX	
890-1750-62	SW-17	Total/NA	Solid	Total BTEX	
890-1750-63	SW-18	Total/NA	Solid	Total BTEX	
890-1750-64	SW-19	Total/NA	Solid	Total BTEX	
890-1750-65	SW-20	Total/NA	Solid	Total BTEX	
890-1750-66	SW-21	Total/NA	Solid	Total BTEX	
890-1750-67	SW-22	Total/NA	Solid	Total BTEX	
890-1750-68	SW-23	Total/NA	Solid	Total BTEX	
890-1750-69	SW-24	Total/NA	Solid	Total BTEX	
890-1750-70	SW-25	Total/NA	Solid	Total BTEX	
890-1750-71	SW-26	Total/NA	Solid	Total BTEX	
890-1750-72	SW-27	Total/NA	Solid	Total BTEX	
890-1750-73	SW-28	Total/NA	Solid	Total BTEX	
890-1750-74	SW-29	Total/NA	Solid	Total BTEX	
890-1750-75	SW-30	Total/NA	Solid	Total BTEX	
890-1750-76	SW-31	Total/NA	Solid	Total BTEX	
890-1750-77	SW-32	Total/NA	Solid	Total BTEX	
890-1750-78	SW-33	Total/NA	Solid	Total BTEX	
890-1750-79	SW-34	Total/NA	Solid	Total BTEX	
890-1750-80	SW-35	Total/NA	Solid	Total BTEX	
890-1750-81	SW-36	Total/NA	Solid	Total BTEX	
890-1750-82	SW-37	Total/NA	Solid	Total BTEX	
890-1750-83	SW-38	Total/NA	Solid	Total BTEX	
890-1750-84	SW-39	Total/NA	Solid	Total BTEX	
890-1750-85	SW-40	Total/NA	Solid	Total BTEX	
890-1750-86	SW-41	Total/NA	Solid	Total BTEX	
890-1750-87	SW-42	Total/NA	Solid	Total BTEX	
890-1750-88	SW-43	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 15607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-87	SW-42	Total/NA	Solid	8015NM Prep	
890-1750-88	SW-43	Total/NA	Solid	8015NM Prep	
MB 880-15607/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15607/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15607/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-9663-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-9663-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-87	SW-42	Total/NA	Solid	8015B NM	15607
890-1750-88	SW-43	Total/NA	Solid	8015B NM	15607

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 15643 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15607/1-A	Method Blank	Total/NA	Solid	8015B NM	15607
LCS 880-15607/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15607
LCSD 880-15607/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15607
880-9663-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	15607
880-9663-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15607

Prep Batch: 15659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-83	SW-38	Total/NA	Solid	8015NM Prep	
890-1750-84	SW-39	Total/NA	Solid	8015NM Prep	
890-1750-85	SW-40	Total/NA	Solid	8015NM Prep	
890-1750-86	SW-41	Total/NA	Solid	8015NM Prep	
MB 880-15659/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15659/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1751-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1751-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-83	SW-38	Total/NA	Solid	8015B NM	15659
890-1750-84	SW-39	Total/NA	Solid	8015B NM	15659
890-1750-85	SW-40	Total/NA	Solid	8015B NM	15659
890-1750-86	SW-41	Total/NA	Solid	8015B NM	15659
MB 880-15659/1-A	Method Blank	Total/NA	Solid	8015B NM	15659
LCS 880-15659/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15659
LCSD 880-15659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15659
890-1751-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	15659
890-1751-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15659

Prep Batch: 15699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Total/NA	Solid	8015NM Prep	
890-1750-2	BH-2	Total/NA	Solid	8015NM Prep	
890-1750-3	BH-3	Total/NA	Solid	8015NM Prep	
890-1750-4	BH-4	Total/NA	Solid	8015NM Prep	
890-1750-5	BH-5	Total/NA	Solid	8015NM Prep	
890-1750-6	BH-6	Total/NA	Solid	8015NM Prep	
890-1750-7	BH-7	Total/NA	Solid	8015NM Prep	
890-1750-8	BH-8	Total/NA	Solid	8015NM Prep	
890-1750-9	BH-9	Total/NA	Solid	8015NM Prep	
890-1750-10	BH-10	Total/NA	Solid	8015NM Prep	
890-1750-11	BH-11	Total/NA	Solid	8015NM Prep	
890-1750-12	BH-12	Total/NA	Solid	8015NM Prep	
890-1750-13	BH-13	Total/NA	Solid	8015NM Prep	
890-1750-14	BH-14	Total/NA	Solid	8015NM Prep	
890-1750-15	BH-15	Total/NA	Solid	8015NM Prep	
890-1750-16	BH-16	Total/NA	Solid	8015NM Prep	
890-1750-17	BH-17	Total/NA	Solid	8015NM Prep	
890-1750-18	BH-18	Total/NA	Solid	8015NM Prep	
890-1750-19	BH-19	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 15699 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-20	BH-20	Total/NA	Solid	8015NM Prep	
MB 880-15699/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15699/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15699/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1750-1 MS	BH-1	Total/NA	Solid	8015NM Prep	
890-1750-1 MSD	BH-1	Total/NA	Solid	8015NM Prep	

Prep Batch: 15702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-21	BH-21	Total/NA	Solid	8015NM Prep	
890-1750-22	BH-22	Total/NA	Solid	8015NM Prep	
890-1750-23	BH-23	Total/NA	Solid	8015NM Prep	
890-1750-24	BH-24	Total/NA	Solid	8015NM Prep	
890-1750-25	BH-25	Total/NA	Solid	8015NM Prep	
890-1750-26	BH-26	Total/NA	Solid	8015NM Prep	
890-1750-27	BH-27	Total/NA	Solid	8015NM Prep	
890-1750-28	BH-28	Total/NA	Solid	8015NM Prep	
890-1750-29	BH-29	Total/NA	Solid	8015NM Prep	
890-1750-30	BH-30	Total/NA	Solid	8015NM Prep	
890-1750-31	BH-31	Total/NA	Solid	8015NM Prep	
890-1750-32	BH-32	Total/NA	Solid	8015NM Prep	
890-1750-33	BH-33	Total/NA	Solid	8015NM Prep	
890-1750-34	BH-34	Total/NA	Solid	8015NM Prep	
890-1750-35	BH-35	Total/NA	Solid	8015NM Prep	
890-1750-36	BH-36	Total/NA	Solid	8015NM Prep	
890-1750-37	BH-37	Total/NA	Solid	8015NM Prep	
890-1750-38	BH-38	Total/NA	Solid	8015NM Prep	
890-1750-39	BH-39	Total/NA	Solid	8015NM Prep	
890-1750-40	BH-40	Total/NA	Solid	8015NM Prep	
MB 880-15702/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15702/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15702/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1750-21 MS	BH-21	Total/NA	Solid	8015NM Prep	
890-1750-21 MSD	BH-21	Total/NA	Solid	8015NM Prep	

Prep Batch: 15708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-61	SW-16	Total/NA	Solid	8015NM Prep	
890-1750-62	SW-17	Total/NA	Solid	8015NM Prep	
890-1750-63	SW-18	Total/NA	Solid	8015NM Prep	
890-1750-64	SW-19	Total/NA	Solid	8015NM Prep	
890-1750-65	SW-20	Total/NA	Solid	8015NM Prep	
890-1750-66	SW-21	Total/NA	Solid	8015NM Prep	
890-1750-67	SW-22	Total/NA	Solid	8015NM Prep	
890-1750-68	SW-23	Total/NA	Solid	8015NM Prep	
890-1750-69	SW-24	Total/NA	Solid	8015NM Prep	
890-1750-70	SW-25	Total/NA	Solid	8015NM Prep	
890-1750-71	SW-26	Total/NA	Solid	8015NM Prep	
890-1750-72	SW-27	Total/NA	Solid	8015NM Prep	
890-1750-73	SW-28	Total/NA	Solid	8015NM Prep	
890-1750-74	SW-29	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 15708 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-75	SW-30	Total/NA	Solid	8015NM Prep	
890-1750-76	SW-31	Total/NA	Solid	8015NM Prep	
890-1750-77	SW-32	Total/NA	Solid	8015NM Prep	
890-1750-78	SW-33	Total/NA	Solid	8015NM Prep	
890-1750-79	SW-34	Total/NA	Solid	8015NM Prep	
890-1750-80	SW-35	Total/NA	Solid	8015NM Prep	
MB 880-15708/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15708/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15708/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1750-61 MS	SW-16	Total/NA	Solid	8015NM Prep	
890-1750-61 MSD	SW-16	Total/NA	Solid	8015NM Prep	

Prep Batch: 15711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-41	BH-41	Total/NA	Solid	8015NM Prep	
890-1750-42	BH-42	Total/NA	Solid	8015NM Prep	
890-1750-43	BH-43	Total/NA	Solid	8015NM Prep	
890-1750-44	BH-44	Total/NA	Solid	8015NM Prep	
890-1750-45	BH-45	Total/NA	Solid	8015NM Prep	
890-1750-46	SW-1	Total/NA	Solid	8015NM Prep	
890-1750-47	SW-2	Total/NA	Solid	8015NM Prep	
890-1750-48	SW-3	Total/NA	Solid	8015NM Prep	
890-1750-49	SW-4	Total/NA	Solid	8015NM Prep	
890-1750-50	SW-5	Total/NA	Solid	8015NM Prep	
890-1750-51	SW-6	Total/NA	Solid	8015NM Prep	
890-1750-52	SW-7	Total/NA	Solid	8015NM Prep	
890-1750-53	SW-8	Total/NA	Solid	8015NM Prep	
890-1750-54	SW-9	Total/NA	Solid	8015NM Prep	
890-1750-55	SW-10	Total/NA	Solid	8015NM Prep	
890-1750-56	SW-11	Total/NA	Solid	8015NM Prep	
890-1750-57	SW-12	Total/NA	Solid	8015NM Prep	
890-1750-58	SW-13	Total/NA	Solid	8015NM Prep	
890-1750-59	SW-14	Total/NA	Solid	8015NM Prep	
890-1750-60	SW-15	Total/NA	Solid	8015NM Prep	
MB 880-15711/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15711/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1750-41 MS	BH-41	Total/NA	Solid	8015NM Prep	
890-1750-41 MSD	BH-41	Total/NA	Solid	8015NM Prep	

Prep Batch: 15722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-81	SW-36	Total/NA	Solid	8015NM Prep	
890-1750-82	SW-37	Total/NA	Solid	8015NM Prep	
MB 880-15722/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15722/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15722/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1750-81 MS	SW-36	Total/NA	Solid	8015NM Prep	
890-1750-81 MSD	SW-36	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 15779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Total/NA	Solid	8015B NM	15699
890-1750-2	BH-2	Total/NA	Solid	8015B NM	15699
890-1750-3	BH-3	Total/NA	Solid	8015B NM	15699
890-1750-4	BH-4	Total/NA	Solid	8015B NM	15699
890-1750-5	BH-5	Total/NA	Solid	8015B NM	15699
890-1750-6	BH-6	Total/NA	Solid	8015B NM	15699
890-1750-7	BH-7	Total/NA	Solid	8015B NM	15699
890-1750-8	BH-8	Total/NA	Solid	8015B NM	15699
890-1750-9	BH-9	Total/NA	Solid	8015B NM	15699
890-1750-10	BH-10	Total/NA	Solid	8015B NM	15699
890-1750-11	BH-11	Total/NA	Solid	8015B NM	15699
890-1750-12	BH-12	Total/NA	Solid	8015B NM	15699
890-1750-13	BH-13	Total/NA	Solid	8015B NM	15699
890-1750-14	BH-14	Total/NA	Solid	8015B NM	15699
890-1750-15	BH-15	Total/NA	Solid	8015B NM	15699
890-1750-16	BH-16	Total/NA	Solid	8015B NM	15699
890-1750-17	BH-17	Total/NA	Solid	8015B NM	15699
890-1750-18	BH-18	Total/NA	Solid	8015B NM	15699
890-1750-19	BH-19	Total/NA	Solid	8015B NM	15699
890-1750-20	BH-20	Total/NA	Solid	8015B NM	15699
890-1750-21	BH-21	Total/NA	Solid	8015B NM	15702
890-1750-22	BH-22	Total/NA	Solid	8015B NM	15702
890-1750-23	BH-23	Total/NA	Solid	8015B NM	15702
890-1750-24	BH-24	Total/NA	Solid	8015B NM	15702
890-1750-25	BH-25	Total/NA	Solid	8015B NM	15702
890-1750-26	BH-26	Total/NA	Solid	8015B NM	15702
890-1750-27	BH-27	Total/NA	Solid	8015B NM	15702
890-1750-28	BH-28	Total/NA	Solid	8015B NM	15702
890-1750-29	BH-29	Total/NA	Solid	8015B NM	15702
890-1750-30	BH-30	Total/NA	Solid	8015B NM	15702
890-1750-31	BH-31	Total/NA	Solid	8015B NM	15702
890-1750-32	BH-32	Total/NA	Solid	8015B NM	15702
890-1750-33	BH-33	Total/NA	Solid	8015B NM	15702
890-1750-34	BH-34	Total/NA	Solid	8015B NM	15702
890-1750-35	BH-35	Total/NA	Solid	8015B NM	15702
890-1750-36	BH-36	Total/NA	Solid	8015B NM	15702
890-1750-37	BH-37	Total/NA	Solid	8015B NM	15702
890-1750-38	BH-38	Total/NA	Solid	8015B NM	15702
890-1750-39	BH-39	Total/NA	Solid	8015B NM	15702
890-1750-40	BH-40	Total/NA	Solid	8015B NM	15702
MB 880-15699/1-A	Method Blank	Total/NA	Solid	8015B NM	15699
MB 880-15702/1-A	Method Blank	Total/NA	Solid	8015B NM	15702
LCS 880-15699/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15699
LCS 880-15702/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15702
LCSD 880-15699/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15699
LCSD 880-15702/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15702
890-1750-1 MS	BH-1	Total/NA	Solid	8015B NM	15699
890-1750-1 MSD	BH-1	Total/NA	Solid	8015B NM	15699
890-1750-21 MS	BH-21	Total/NA	Solid	8015B NM	15702
890-1750-21 MSD	BH-21	Total/NA	Solid	8015B NM	15702

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 15783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-41	BH-41	Total/NA	Solid	8015B NM	15711
890-1750-42	BH-42	Total/NA	Solid	8015B NM	15711
890-1750-43	BH-43	Total/NA	Solid	8015B NM	15711
890-1750-44	BH-44	Total/NA	Solid	8015B NM	15711
890-1750-45	BH-45	Total/NA	Solid	8015B NM	15711
890-1750-46	SW-1	Total/NA	Solid	8015B NM	15711
890-1750-47	SW-2	Total/NA	Solid	8015B NM	15711
890-1750-48	SW-3	Total/NA	Solid	8015B NM	15711
890-1750-49	SW-4	Total/NA	Solid	8015B NM	15711
890-1750-50	SW-5	Total/NA	Solid	8015B NM	15711
890-1750-51	SW-6	Total/NA	Solid	8015B NM	15711
890-1750-52	SW-7	Total/NA	Solid	8015B NM	15711
890-1750-53	SW-8	Total/NA	Solid	8015B NM	15711
890-1750-54	SW-9	Total/NA	Solid	8015B NM	15711
890-1750-55	SW-10	Total/NA	Solid	8015B NM	15711
890-1750-56	SW-11	Total/NA	Solid	8015B NM	15711
890-1750-57	SW-12	Total/NA	Solid	8015B NM	15711
890-1750-58	SW-13	Total/NA	Solid	8015B NM	15711
890-1750-59	SW-14	Total/NA	Solid	8015B NM	15711
890-1750-60	SW-15	Total/NA	Solid	8015B NM	15711
890-1750-61	SW-16	Total/NA	Solid	8015B NM	15708
890-1750-62	SW-17	Total/NA	Solid	8015B NM	15708
890-1750-63	SW-18	Total/NA	Solid	8015B NM	15708
890-1750-64	SW-19	Total/NA	Solid	8015B NM	15708
890-1750-65	SW-20	Total/NA	Solid	8015B NM	15708
890-1750-66	SW-21	Total/NA	Solid	8015B NM	15708
890-1750-67	SW-22	Total/NA	Solid	8015B NM	15708
890-1750-68	SW-23	Total/NA	Solid	8015B NM	15708
890-1750-69	SW-24	Total/NA	Solid	8015B NM	15708
890-1750-70	SW-25	Total/NA	Solid	8015B NM	15708
890-1750-71	SW-26	Total/NA	Solid	8015B NM	15708
890-1750-72	SW-27	Total/NA	Solid	8015B NM	15708
890-1750-73	SW-28	Total/NA	Solid	8015B NM	15708
890-1750-74	SW-29	Total/NA	Solid	8015B NM	15708
890-1750-75	SW-30	Total/NA	Solid	8015B NM	15708
890-1750-76	SW-31	Total/NA	Solid	8015B NM	15708
890-1750-77	SW-32	Total/NA	Solid	8015B NM	15708
890-1750-78	SW-33	Total/NA	Solid	8015B NM	15708
890-1750-79	SW-34	Total/NA	Solid	8015B NM	15708
890-1750-80	SW-35	Total/NA	Solid	8015B NM	15708
MB 880-15708/1-A	Method Blank	Total/NA	Solid	8015B NM	15708
MB 880-15711/1-A	Method Blank	Total/NA	Solid	8015B NM	15711
LCS 880-15708/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15708
LCS 880-15711/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15711
LCSD 880-15708/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15708
LCSD 880-15711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15711
890-1750-41 MS	BH-41	Total/NA	Solid	8015B NM	15711
890-1750-41 MSD	BH-41	Total/NA	Solid	8015B NM	15711
890-1750-61 MS	SW-16	Total/NA	Solid	8015B NM	15708
890-1750-61 MSD	SW-16	Total/NA	Solid	8015B NM	15708

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 15825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-81	SW-36	Total/NA	Solid	8015B NM	15722
890-1750-82	SW-37	Total/NA	Solid	8015B NM	15722
MB 880-15722/1-A	Method Blank	Total/NA	Solid	8015B NM	15722
LCS 880-15722/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15722
LCSD 880-15722/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15722
890-1750-81 MS	SW-36	Total/NA	Solid	8015B NM	15722
890-1750-81 MSD	SW-36	Total/NA	Solid	8015B NM	15722

Analysis Batch: 15912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Total/NA	Solid	8015 NM	
890-1750-2	BH-2	Total/NA	Solid	8015 NM	
890-1750-3	BH-3	Total/NA	Solid	8015 NM	
890-1750-4	BH-4	Total/NA	Solid	8015 NM	
890-1750-5	BH-5	Total/NA	Solid	8015 NM	
890-1750-6	BH-6	Total/NA	Solid	8015 NM	
890-1750-7	BH-7	Total/NA	Solid	8015 NM	
890-1750-8	BH-8	Total/NA	Solid	8015 NM	
890-1750-9	BH-9	Total/NA	Solid	8015 NM	
890-1750-10	BH-10	Total/NA	Solid	8015 NM	
890-1750-11	BH-11	Total/NA	Solid	8015 NM	
890-1750-12	BH-12	Total/NA	Solid	8015 NM	
890-1750-13	BH-13	Total/NA	Solid	8015 NM	
890-1750-14	BH-14	Total/NA	Solid	8015 NM	
890-1750-15	BH-15	Total/NA	Solid	8015 NM	
890-1750-16	BH-16	Total/NA	Solid	8015 NM	
890-1750-17	BH-17	Total/NA	Solid	8015 NM	
890-1750-18	BH-18	Total/NA	Solid	8015 NM	
890-1750-19	BH-19	Total/NA	Solid	8015 NM	
890-1750-20	BH-20	Total/NA	Solid	8015 NM	
890-1750-21	BH-21	Total/NA	Solid	8015 NM	
890-1750-22	BH-22	Total/NA	Solid	8015 NM	
890-1750-23	BH-23	Total/NA	Solid	8015 NM	
890-1750-24	BH-24	Total/NA	Solid	8015 NM	
890-1750-25	BH-25	Total/NA	Solid	8015 NM	
890-1750-26	BH-26	Total/NA	Solid	8015 NM	
890-1750-27	BH-27	Total/NA	Solid	8015 NM	
890-1750-28	BH-28	Total/NA	Solid	8015 NM	
890-1750-29	BH-29	Total/NA	Solid	8015 NM	
890-1750-30	BH-30	Total/NA	Solid	8015 NM	
890-1750-31	BH-31	Total/NA	Solid	8015 NM	
890-1750-32	BH-32	Total/NA	Solid	8015 NM	
890-1750-33	BH-33	Total/NA	Solid	8015 NM	
890-1750-34	BH-34	Total/NA	Solid	8015 NM	
890-1750-35	BH-35	Total/NA	Solid	8015 NM	
890-1750-36	BH-36	Total/NA	Solid	8015 NM	
890-1750-37	BH-37	Total/NA	Solid	8015 NM	
890-1750-38	BH-38	Total/NA	Solid	8015 NM	
890-1750-39	BH-39	Total/NA	Solid	8015 NM	
890-1750-40	BH-40	Total/NA	Solid	8015 NM	
890-1750-41	BH-41	Total/NA	Solid	8015 NM	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 15912 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-42	BH-42	Total/NA	Solid	8015 NM	
890-1750-43	BH-43	Total/NA	Solid	8015 NM	
890-1750-44	BH-44	Total/NA	Solid	8015 NM	
890-1750-45	BH-45	Total/NA	Solid	8015 NM	
890-1750-46	SW-1	Total/NA	Solid	8015 NM	
890-1750-47	SW-2	Total/NA	Solid	8015 NM	
890-1750-48	SW-3	Total/NA	Solid	8015 NM	
890-1750-49	SW-4	Total/NA	Solid	8015 NM	
890-1750-50	SW-5	Total/NA	Solid	8015 NM	
890-1750-51	SW-6	Total/NA	Solid	8015 NM	
890-1750-52	SW-7	Total/NA	Solid	8015 NM	
890-1750-53	SW-8	Total/NA	Solid	8015 NM	
890-1750-54	SW-9	Total/NA	Solid	8015 NM	
890-1750-55	SW-10	Total/NA	Solid	8015 NM	
890-1750-56	SW-11	Total/NA	Solid	8015 NM	
890-1750-57	SW-12	Total/NA	Solid	8015 NM	
890-1750-58	SW-13	Total/NA	Solid	8015 NM	
890-1750-59	SW-14	Total/NA	Solid	8015 NM	
890-1750-60	SW-15	Total/NA	Solid	8015 NM	
890-1750-61	SW-16	Total/NA	Solid	8015 NM	
890-1750-62	SW-17	Total/NA	Solid	8015 NM	
890-1750-63	SW-18	Total/NA	Solid	8015 NM	
890-1750-64	SW-19	Total/NA	Solid	8015 NM	
890-1750-65	SW-20	Total/NA	Solid	8015 NM	
890-1750-66	SW-21	Total/NA	Solid	8015 NM	
890-1750-67	SW-22	Total/NA	Solid	8015 NM	
890-1750-68	SW-23	Total/NA	Solid	8015 NM	
890-1750-69	SW-24	Total/NA	Solid	8015 NM	
890-1750-70	SW-25	Total/NA	Solid	8015 NM	
890-1750-71	SW-26	Total/NA	Solid	8015 NM	
890-1750-72	SW-27	Total/NA	Solid	8015 NM	
890-1750-73	SW-28	Total/NA	Solid	8015 NM	
890-1750-74	SW-29	Total/NA	Solid	8015 NM	
890-1750-75	SW-30	Total/NA	Solid	8015 NM	
890-1750-76	SW-31	Total/NA	Solid	8015 NM	
890-1750-77	SW-32	Total/NA	Solid	8015 NM	
890-1750-78	SW-33	Total/NA	Solid	8015 NM	
890-1750-79	SW-34	Total/NA	Solid	8015 NM	
890-1750-80	SW-35	Total/NA	Solid	8015 NM	
890-1750-81	SW-36	Total/NA	Solid	8015 NM	
890-1750-82	SW-37	Total/NA	Solid	8015 NM	
890-1750-83	SW-38	Total/NA	Solid	8015 NM	
890-1750-84	SW-39	Total/NA	Solid	8015 NM	
890-1750-85	SW-40	Total/NA	Solid	8015 NM	
890-1750-86	SW-41	Total/NA	Solid	8015 NM	
890-1750-87	SW-42	Total/NA	Solid	8015 NM	
890-1750-88	SW-43	Total/NA	Solid	8015 NM	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 15511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Soluble	Solid	DI Leach	
890-1750-2	BH-2	Soluble	Solid	DI Leach	
890-1750-3	BH-3	Soluble	Solid	DI Leach	
890-1750-4	BH-4	Soluble	Solid	DI Leach	
890-1750-5	BH-5	Soluble	Solid	DI Leach	
890-1750-6	BH-6	Soluble	Solid	DI Leach	
890-1750-7	BH-7	Soluble	Solid	DI Leach	
890-1750-8	BH-8	Soluble	Solid	DI Leach	
890-1750-9	BH-9	Soluble	Solid	DI Leach	
890-1750-10	BH-10	Soluble	Solid	DI Leach	
890-1750-11	BH-11	Soluble	Solid	DI Leach	
890-1750-12	BH-12	Soluble	Solid	DI Leach	
890-1750-13	BH-13	Soluble	Solid	DI Leach	
890-1750-14	BH-14	Soluble	Solid	DI Leach	
890-1750-15	BH-15	Soluble	Solid	DI Leach	
890-1750-16	BH-16	Soluble	Solid	DI Leach	
890-1750-17	BH-17	Soluble	Solid	DI Leach	
890-1750-18	BH-18	Soluble	Solid	DI Leach	
890-1750-19	BH-19	Soluble	Solid	DI Leach	
MB 880-15511/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15511/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15511/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1750-1 MS	BH-1	Soluble	Solid	DI Leach	
890-1750-1 MSD	BH-1	Soluble	Solid	DI Leach	
890-1750-11 MS	BH-11	Soluble	Solid	DI Leach	
890-1750-11 MSD	BH-11	Soluble	Solid	DI Leach	

Leach Batch: 15512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-20	BH-20	Soluble	Solid	DI Leach	
890-1750-21	BH-21	Soluble	Solid	DI Leach	
890-1750-22	BH-22	Soluble	Solid	DI Leach	
890-1750-23	BH-23	Soluble	Solid	DI Leach	
890-1750-24	BH-24	Soluble	Solid	DI Leach	
890-1750-25	BH-25	Soluble	Solid	DI Leach	
890-1750-26	BH-26	Soluble	Solid	DI Leach	
890-1750-27	BH-27	Soluble	Solid	DI Leach	
890-1750-28	BH-28	Soluble	Solid	DI Leach	
890-1750-29	BH-29	Soluble	Solid	DI Leach	
890-1750-30	BH-30	Soluble	Solid	DI Leach	
890-1750-31	BH-31	Soluble	Solid	DI Leach	
890-1750-32	BH-32	Soluble	Solid	DI Leach	
890-1750-33	BH-33	Soluble	Solid	DI Leach	
890-1750-34	BH-34	Soluble	Solid	DI Leach	
890-1750-35	BH-35	Soluble	Solid	DI Leach	
890-1750-36	BH-36	Soluble	Solid	DI Leach	
890-1750-37	BH-37	Soluble	Solid	DI Leach	
890-1750-38	BH-38	Soluble	Solid	DI Leach	
MB 880-15512/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15512/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15512/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 15512 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-20 MS	BH-20	Soluble	Solid	DI Leach	
890-1750-20 MSD	BH-20	Soluble	Solid	DI Leach	
890-1750-30 MS	BH-30	Soluble	Solid	DI Leach	
890-1750-30 MSD	BH-30	Soluble	Solid	DI Leach	

Leach Batch: 15513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-39	BH-39	Soluble	Solid	DI Leach	
890-1750-40	BH-40	Soluble	Solid	DI Leach	
890-1750-41	BH-41	Soluble	Solid	DI Leach	
890-1750-42	BH-42	Soluble	Solid	DI Leach	
890-1750-43	BH-43	Soluble	Solid	DI Leach	
890-1750-44	BH-44	Soluble	Solid	DI Leach	
890-1750-45	BH-45	Soluble	Solid	DI Leach	
890-1750-46	SW-1	Soluble	Solid	DI Leach	
890-1750-47	SW-2	Soluble	Solid	DI Leach	
890-1750-48	SW-3	Soluble	Solid	DI Leach	
890-1750-49	SW-4	Soluble	Solid	DI Leach	
890-1750-50	SW-5	Soluble	Solid	DI Leach	
890-1750-51	SW-6	Soluble	Solid	DI Leach	
890-1750-52	SW-7	Soluble	Solid	DI Leach	
890-1750-53	SW-8	Soluble	Solid	DI Leach	
890-1750-54	SW-9	Soluble	Solid	DI Leach	
890-1750-55	SW-10	Soluble	Solid	DI Leach	
890-1750-56	SW-11	Soluble	Solid	DI Leach	
890-1750-57	SW-12	Soluble	Solid	DI Leach	
MB 880-15513/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15513/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15513/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1750-39 MS	BH-39	Soluble	Solid	DI Leach	
890-1750-39 MSD	BH-39	Soluble	Solid	DI Leach	
890-1750-49 MS	SW-4	Soluble	Solid	DI Leach	
890-1750-49 MSD	SW-4	Soluble	Solid	DI Leach	

Leach Batch: 15514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-58	SW-13	Soluble	Solid	DI Leach	
890-1750-59	SW-14	Soluble	Solid	DI Leach	
890-1750-60	SW-15	Soluble	Solid	DI Leach	
890-1750-61	SW-16	Soluble	Solid	DI Leach	
890-1750-62	SW-17	Soluble	Solid	DI Leach	
890-1750-63	SW-18	Soluble	Solid	DI Leach	
890-1750-64	SW-19	Soluble	Solid	DI Leach	
890-1750-65	SW-20	Soluble	Solid	DI Leach	
890-1750-66	SW-21	Soluble	Solid	DI Leach	
890-1750-67	SW-22	Soluble	Solid	DI Leach	
890-1750-68	SW-23	Soluble	Solid	DI Leach	
890-1750-69	SW-24	Soluble	Solid	DI Leach	
890-1750-70	SW-25	Soluble	Solid	DI Leach	
890-1750-71	SW-26	Soluble	Solid	DI Leach	
890-1750-72	SW-27	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 15514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-73	SW-28	Soluble	Solid	DI Leach	
890-1750-74	SW-29	Soluble	Solid	DI Leach	
890-1750-75	SW-30	Soluble	Solid	DI Leach	
MB 880-15514/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15514/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15514/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1750-58 MS	SW-13	Soluble	Solid	DI Leach	
890-1750-58 MSD	SW-13	Soluble	Solid	DI Leach	
890-1750-68 MS	SW-23	Soluble	Solid	DI Leach	
890-1750-68 MSD	SW-23	Soluble	Solid	DI Leach	

Leach Batch: 15515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-76	SW-31	Soluble	Solid	DI Leach	
890-1750-77	SW-32	Soluble	Solid	DI Leach	
890-1750-78	SW-33	Soluble	Solid	DI Leach	
890-1750-79	SW-34	Soluble	Solid	DI Leach	
890-1750-80	SW-35	Soluble	Solid	DI Leach	
890-1750-81	SW-36	Soluble	Solid	DI Leach	
890-1750-82	SW-37	Soluble	Solid	DI Leach	
890-1750-83	SW-38	Soluble	Solid	DI Leach	
890-1750-84	SW-39	Soluble	Solid	DI Leach	
890-1750-85	SW-40	Soluble	Solid	DI Leach	
890-1750-86	SW-41	Soluble	Solid	DI Leach	
890-1750-87	SW-42	Soluble	Solid	DI Leach	
890-1750-88	SW-43	Soluble	Solid	DI Leach	
MB 880-15515/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15515/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15515/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1750-85 MS	SW-40	Soluble	Solid	DI Leach	
890-1750-85 MSD	SW-40	Soluble	Solid	DI Leach	

Analysis Batch: 15745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-1	BH-1	Soluble	Solid	300.0	15511
890-1750-2	BH-2	Soluble	Solid	300.0	15511
890-1750-3	BH-3	Soluble	Solid	300.0	15511
890-1750-4	BH-4	Soluble	Solid	300.0	15511
890-1750-5	BH-5	Soluble	Solid	300.0	15511
890-1750-6	BH-6	Soluble	Solid	300.0	15511
890-1750-7	BH-7	Soluble	Solid	300.0	15511
890-1750-8	BH-8	Soluble	Solid	300.0	15511
890-1750-9	BH-9	Soluble	Solid	300.0	15511
890-1750-10	BH-10	Soluble	Solid	300.0	15511
890-1750-11	BH-11	Soluble	Solid	300.0	15511
890-1750-12	BH-12	Soluble	Solid	300.0	15511
890-1750-13	BH-13	Soluble	Solid	300.0	15511
890-1750-14	BH-14	Soluble	Solid	300.0	15511
890-1750-15	BH-15	Soluble	Solid	300.0	15511
890-1750-16	BH-16	Soluble	Solid	300.0	15511
890-1750-17	BH-17	Soluble	Solid	300.0	15511

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

HPLC/IC (Continued)

Analysis Batch: 15745 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-18	BH-18	Soluble	Solid	300.0	15511
890-1750-19	BH-19	Soluble	Solid	300.0	15511
MB 880-15511/1-A	Method Blank	Soluble	Solid	300.0	15511
LCS 880-15511/2-A	Lab Control Sample	Soluble	Solid	300.0	15511
LCSD 880-15511/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15511
890-1750-1 MS	BH-1	Soluble	Solid	300.0	15511
890-1750-1 MSD	BH-1	Soluble	Solid	300.0	15511
890-1750-11 MS	BH-11	Soluble	Solid	300.0	15511
890-1750-11 MSD	BH-11	Soluble	Solid	300.0	15511

Analysis Batch: 15747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-20	BH-20	Soluble	Solid	300.0	15512
890-1750-21	BH-21	Soluble	Solid	300.0	15512
890-1750-22	BH-22	Soluble	Solid	300.0	15512
890-1750-23	BH-23	Soluble	Solid	300.0	15512
890-1750-24	BH-24	Soluble	Solid	300.0	15512
890-1750-25	BH-25	Soluble	Solid	300.0	15512
890-1750-26	BH-26	Soluble	Solid	300.0	15512
890-1750-27	BH-27	Soluble	Solid	300.0	15512
890-1750-28	BH-28	Soluble	Solid	300.0	15512
890-1750-29	BH-29	Soluble	Solid	300.0	15512
890-1750-30	BH-30	Soluble	Solid	300.0	15512
890-1750-31	BH-31	Soluble	Solid	300.0	15512
890-1750-32	BH-32	Soluble	Solid	300.0	15512
890-1750-33	BH-33	Soluble	Solid	300.0	15512
890-1750-34	BH-34	Soluble	Solid	300.0	15512
890-1750-35	BH-35	Soluble	Solid	300.0	15512
890-1750-36	BH-36	Soluble	Solid	300.0	15512
890-1750-37	BH-37	Soluble	Solid	300.0	15512
890-1750-38	BH-38	Soluble	Solid	300.0	15512
MB 880-15512/1-A	Method Blank	Soluble	Solid	300.0	15512
LCS 880-15512/2-A	Lab Control Sample	Soluble	Solid	300.0	15512
LCSD 880-15512/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15512
890-1750-20 MS	BH-20	Soluble	Solid	300.0	15512
890-1750-20 MSD	BH-20	Soluble	Solid	300.0	15512
890-1750-30 MS	BH-30	Soluble	Solid	300.0	15512
890-1750-30 MSD	BH-30	Soluble	Solid	300.0	15512

Analysis Batch: 15748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-39	BH-39	Soluble	Solid	300.0	15513
890-1750-40	BH-40	Soluble	Solid	300.0	15513
890-1750-41	BH-41	Soluble	Solid	300.0	15513
890-1750-42	BH-42	Soluble	Solid	300.0	15513
890-1750-43	BH-43	Soluble	Solid	300.0	15513
890-1750-44	BH-44	Soluble	Solid	300.0	15513
890-1750-45	BH-45	Soluble	Solid	300.0	15513
890-1750-46	SW-1	Soluble	Solid	300.0	15513
890-1750-47	SW-2	Soluble	Solid	300.0	15513
890-1750-48	SW-3	Soluble	Solid	300.0	15513

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

HPLC/IC (Continued)

Analysis Batch: 15748 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-49	SW-4	Soluble	Solid	300.0	15513
890-1750-50	SW-5	Soluble	Solid	300.0	15513
890-1750-51	SW-6	Soluble	Solid	300.0	15513
890-1750-52	SW-7	Soluble	Solid	300.0	15513
890-1750-53	SW-8	Soluble	Solid	300.0	15513
890-1750-54	SW-9	Soluble	Solid	300.0	15513
890-1750-55	SW-10	Soluble	Solid	300.0	15513
890-1750-56	SW-11	Soluble	Solid	300.0	15513
890-1750-57	SW-12	Soluble	Solid	300.0	15513
MB 880-15513/1-A	Method Blank	Soluble	Solid	300.0	15513
LCS 880-15513/2-A	Lab Control Sample	Soluble	Solid	300.0	15513
LCSD 880-15513/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15513
890-1750-39 MS	BH-39	Soluble	Solid	300.0	15513
890-1750-39 MSD	BH-39	Soluble	Solid	300.0	15513
890-1750-49 MS	SW-4	Soluble	Solid	300.0	15513
890-1750-49 MSD	SW-4	Soluble	Solid	300.0	15513

Analysis Batch: 15750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-58	SW-13	Soluble	Solid	300.0	15514
890-1750-59	SW-14	Soluble	Solid	300.0	15514
890-1750-60	SW-15	Soluble	Solid	300.0	15514
890-1750-61	SW-16	Soluble	Solid	300.0	15514
890-1750-62	SW-17	Soluble	Solid	300.0	15514
890-1750-63	SW-18	Soluble	Solid	300.0	15514
890-1750-64	SW-19	Soluble	Solid	300.0	15514
890-1750-65	SW-20	Soluble	Solid	300.0	15514
890-1750-66	SW-21	Soluble	Solid	300.0	15514
890-1750-67	SW-22	Soluble	Solid	300.0	15514
890-1750-68	SW-23	Soluble	Solid	300.0	15514
890-1750-69	SW-24	Soluble	Solid	300.0	15514
890-1750-70	SW-25	Soluble	Solid	300.0	15514
890-1750-71	SW-26	Soluble	Solid	300.0	15514
890-1750-72	SW-27	Soluble	Solid	300.0	15514
890-1750-73	SW-28	Soluble	Solid	300.0	15514
890-1750-74	SW-29	Soluble	Solid	300.0	15514
890-1750-75	SW-30	Soluble	Solid	300.0	15514
MB 880-15514/1-A	Method Blank	Soluble	Solid	300.0	15514
LCS 880-15514/2-A	Lab Control Sample	Soluble	Solid	300.0	15514
LCSD 880-15514/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15514
890-1750-58 MS	SW-13	Soluble	Solid	300.0	15514
890-1750-58 MSD	SW-13	Soluble	Solid	300.0	15514
890-1750-68 MS	SW-23	Soluble	Solid	300.0	15514
890-1750-68 MSD	SW-23	Soluble	Solid	300.0	15514

Analysis Batch: 15751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-76	SW-31	Soluble	Solid	300.0	15515
890-1750-77	SW-32	Soluble	Solid	300.0	15515
890-1750-78	SW-33	Soluble	Solid	300.0	15515
890-1750-79	SW-34	Soluble	Solid	300.0	15515

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

HPLC/IC (Continued)

Analysis Batch: 15751 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1750-80	SW-35	Soluble	Solid	300.0	15515
890-1750-81	SW-36	Soluble	Solid	300.0	15515
890-1750-82	SW-37	Soluble	Solid	300.0	15515
890-1750-83	SW-38	Soluble	Solid	300.0	15515
890-1750-84	SW-39	Soluble	Solid	300.0	15515
890-1750-85	SW-40	Soluble	Solid	300.0	15515
890-1750-86	SW-41	Soluble	Solid	300.0	15515
890-1750-87	SW-42	Soluble	Solid	300.0	15515
890-1750-88	SW-43	Soluble	Solid	300.0	15515
MB 880-15515/1-A	Method Blank	Soluble	Solid	300.0	15515
LCS 880-15515/2-A	Lab Control Sample	Soluble	Solid	300.0	15515
LCSD 880-15515/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15515
890-1750-85 MS	SW-40	Soluble	Solid	300.0	15515
890-1750-85 MSD	SW-40	Soluble	Solid	300.0	15515

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-1

Lab Sample ID: 890-1750-1

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 01:54	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 12:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 21:12	CH	XEN MID

Client Sample ID: BH-2

Lab Sample ID: 890-1750-2

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 02:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 13:21	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 21:36	CH	XEN MID

Client Sample ID: BH-3

Lab Sample ID: 890-1750-3

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 02:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 13:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 21:44	CH	XEN MID

Client Sample ID: BH-4

Lab Sample ID: 890-1750-4

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 02:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-4

Lab Sample ID: 890-1750-4

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 21:51	CH	XEN MID

Client Sample ID: BH-5

Lab Sample ID: 890-1750-5

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 03:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 15:53	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 21:59	CH	XEN MID

Client Sample ID: BH-6

Lab Sample ID: 890-1750-6

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 03:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 16:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 22:23	CH	XEN MID

Client Sample ID: BH-7

Lab Sample ID: 890-1750-7

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 03:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 16:34	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-7

Lab Sample ID: 890-1750-7

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 22:31	CH	XEN MID

Client Sample ID: BH-8

Lab Sample ID: 890-1750-8

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 04:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 16:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 22:39	CH	XEN MID

Client Sample ID: BH-9

Lab Sample ID: 890-1750-9

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 04:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 17:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 22:46	CH	XEN MID

Client Sample ID: BH-10

Lab Sample ID: 890-1750-10

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 04:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 17:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 22:54	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-11

Lab Sample ID: 890-1750-11

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 06:20	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 18:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 23:02	CH	XEN MID

Client Sample ID: BH-12

Lab Sample ID: 890-1750-12

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 06:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 18:35	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 23:26	CH	XEN MID

Client Sample ID: BH-13

Lab Sample ID: 890-1750-13

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 07:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 18:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 23:34	CH	XEN MID

Client Sample ID: BH-14

Lab Sample ID: 890-1750-14

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 07:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-14

Lab Sample ID: 890-1750-14

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 19:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/29/21 23:57	CH	XEN MID

Client Sample ID: BH-15

Lab Sample ID: 890-1750-15

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 07:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 19:36	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/30/21 00:05	CH	XEN MID

Client Sample ID: BH-16

Lab Sample ID: 890-1750-16

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 08:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 19:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/30/21 00:13	CH	XEN MID

Client Sample ID: BH-17

Lab Sample ID: 890-1750-17

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 08:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 20:17	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-17

Lab Sample ID: 890-1750-17

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/30/21 00:21	CH	XEN MID

Client Sample ID: BH-18

Lab Sample ID: 890-1750-18

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 08:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 20:37	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/30/21 00:29	CH	XEN MID

Client Sample ID: BH-19

Lab Sample ID: 890-1750-19

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 09:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 20:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15511	12/24/21 18:21	SC	XEN MID
Soluble	Analysis	300.0		1			15745	12/30/21 00:37	CH	XEN MID

Client Sample ID: BH-20

Lab Sample ID: 890-1750-20

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15707	12/29/21 08:59	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15788	12/31/21 09:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	15699	12/29/21 08:37	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 21:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 02:34	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-21

Lab Sample ID: 890-1750-21

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 23:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/30/21 23:00	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 03:09	CH	XEN MID

Client Sample ID: BH-22

Lab Sample ID: 890-1750-22

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 00:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 00:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 03:21	CH	XEN MID

Client Sample ID: BH-23

Lab Sample ID: 890-1750-23

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 00:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 00:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 03:33	CH	XEN MID

Client Sample ID: BH-24

Lab Sample ID: 890-1750-24

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 00:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-24

Lab Sample ID: 890-1750-24

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 00:41	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 03:45	CH	XEN MID

Client Sample ID: BH-25

Lab Sample ID: 890-1750-25

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 01:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 01:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 04:20	CH	XEN MID

Client Sample ID: BH-26

Lab Sample ID: 890-1750-26

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 01:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 01:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 04:32	CH	XEN MID

Client Sample ID: BH-27

Lab Sample ID: 890-1750-27

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 01:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 01:42	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-27

Lab Sample ID: 890-1750-27

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 04:44	CH	XEN MID

Client Sample ID: BH-28

Lab Sample ID: 890-1750-28

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 02:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 02:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 04:56	CH	XEN MID

Client Sample ID: BH-29

Lab Sample ID: 890-1750-29

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 02:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 02:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 05:08	CH	XEN MID

Client Sample ID: BH-30

Lab Sample ID: 890-1750-30

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 02:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 02:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 05:20	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-31

Lab Sample ID: 890-1750-31

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 04:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 03:24	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 05:55	CH	XEN MID

Client Sample ID: BH-32

Lab Sample ID: 890-1750-32

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 04:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 03:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 06:07	CH	XEN MID

Client Sample ID: BH-33

Lab Sample ID: 890-1750-33

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 04:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 04:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 06:43	CH	XEN MID

Client Sample ID: BH-34

Lab Sample ID: 890-1750-34

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 05:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-34

Lab Sample ID: 890-1750-34

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 04:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 06:54	CH	XEN MID

Client Sample ID: BH-35

Lab Sample ID: 890-1750-35

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 05:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 04:47	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 07:06	CH	XEN MID

Client Sample ID: BH-36

Lab Sample ID: 890-1750-36

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 05:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 05:08	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 07:18	CH	XEN MID

Client Sample ID: BH-37

Lab Sample ID: 890-1750-37

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 06:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 05:29	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-37

Lab Sample ID: 890-1750-37

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 07:30	CH	XEN MID

Client Sample ID: BH-38

Lab Sample ID: 890-1750-38

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 06:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 05:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15512	12/24/21 18:23	SC	XEN MID
Soluble	Analysis	300.0		5			15747	12/30/21 07:42	CH	XEN MID

Client Sample ID: BH-39

Lab Sample ID: 890-1750-39

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 06:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 06:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 10:26	CH	XEN MID

Client Sample ID: BH-40

Lab Sample ID: 890-1750-40

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15713	01/03/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/04/22 07:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15702	12/29/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15779	12/31/21 06:30	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 10:50	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-41

Lab Sample ID: 890-1750-41

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 04:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 12:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 02:11	CH	XEN MID

Client Sample ID: BH-42

Lab Sample ID: 890-1750-42

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 05:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 13:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		5			15748	12/30/21 02:19	CH	XEN MID

Client Sample ID: BH-43

Lab Sample ID: 890-1750-43

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 05:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 14:10	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 02:26	CH	XEN MID

Client Sample ID: BH-44

Lab Sample ID: 890-1750-44

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 06:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: BH-44

Lab Sample ID: 890-1750-44

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 14:31	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 02:50	CH	XEN MID

Client Sample ID: BH-45

Lab Sample ID: 890-1750-45

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 06:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 14:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 10:58	CH	XEN MID

Client Sample ID: SW-1

Lab Sample ID: 890-1750-46

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 07:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 15:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 11:05	CH	XEN MID

Client Sample ID: SW-2

Lab Sample ID: 890-1750-47

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 07:27	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 15:33	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-2

Lab Sample ID: 890-1750-47

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 08:10	CH	XEN MID

Client Sample ID: SW-3

Lab Sample ID: 890-1750-48

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 07:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 15:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 08:18	CH	XEN MID

Client Sample ID: SW-4

Lab Sample ID: 890-1750-49

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 08:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 16:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 08:26	CH	XEN MID

Client Sample ID: SW-5

Lab Sample ID: 890-1750-50

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 08:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 16:35	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 08:50	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-6

Lab Sample ID: 890-1750-51

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 10:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 17:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 08:58	CH	XEN MID

Client Sample ID: SW-7

Lab Sample ID: 890-1750-52

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 11:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 17:36	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 09:21	CH	XEN MID

Client Sample ID: SW-8

Lab Sample ID: 890-1750-53

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 11:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 17:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 09:29	CH	XEN MID

Client Sample ID: SW-9

Lab Sample ID: 890-1750-54

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 11:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-9

Lab Sample ID: 890-1750-54

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 18:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 09:37	CH	XEN MID

Client Sample ID: SW-10

Lab Sample ID: 890-1750-55

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 12:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 18:38	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 09:45	CH	XEN MID

Client Sample ID: SW-11

Lab Sample ID: 890-1750-56

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 12:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 18:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 09:53	CH	XEN MID

Client Sample ID: SW-12

Lab Sample ID: 890-1750-57

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 13:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 19:19	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-12

Lab Sample ID: 890-1750-57

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	15513	12/24/21 18:27	SC	XEN MID
Soluble	Analysis	300.0		1			15748	12/30/21 10:01	CH	XEN MID

Client Sample ID: SW-13

Lab Sample ID: 890-1750-58

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 13:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 19:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 15:08	CH	XEN MID

Client Sample ID: SW-14

Lab Sample ID: 890-1750-59

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 14:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 20:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 15:32	CH	XEN MID

Client Sample ID: SW-15

Lab Sample ID: 890-1750-60

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15710	12/29/21 09:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 14:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15711	12/29/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 20:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 15:40	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-16

Lab Sample ID: 890-1750-61

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 18:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 22:05	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 15:48	CH	XEN MID

Client Sample ID: SW-17

Lab Sample ID: 890-1750-62

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 18:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 23:07	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 15:56	CH	XEN MID

Client Sample ID: SW-18

Lab Sample ID: 890-1750-63

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 19:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 23:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 16:20	CH	XEN MID

Client Sample ID: SW-19

Lab Sample ID: 890-1750-64

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 19:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-19

Lab Sample ID: 890-1750-64

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/30/21 23:48	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 16:27	CH	XEN MID

Client Sample ID: SW-20

Lab Sample ID: 890-1750-65

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 20:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 00:09	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		1			15750	12/30/21 16:35	CH	XEN MID

Client Sample ID: SW-21

Lab Sample ID: 890-1750-66

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 20:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 00:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.00 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 16:43	CH	XEN MID

Client Sample ID: SW-22

Lab Sample ID: 890-1750-67

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 21:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 00:50	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-22

Lab Sample ID: 890-1750-67

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 16:51	CH	XEN MID

Client Sample ID: SW-23

Lab Sample ID: 890-1750-68

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 21:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 01:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 16:59	CH	XEN MID

Client Sample ID: SW-24

Lab Sample ID: 890-1750-69

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 22:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 01:32	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 17:23	CH	XEN MID

Client Sample ID: SW-25

Lab Sample ID: 890-1750-70

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	12/31/21 22:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 01:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 17:31	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-26

Lab Sample ID: 890-1750-71

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 00:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 02:35	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 17:55	CH	XEN MID

Client Sample ID: SW-27

Lab Sample ID: 890-1750-72

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 00:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 02:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 18:03	CH	XEN MID

Client Sample ID: SW-28

Lab Sample ID: 890-1750-73

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 01:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 03:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.00 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		5			15750	12/30/21 18:11	CH	XEN MID

Client Sample ID: SW-29

Lab Sample ID: 890-1750-74

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 01:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-29

Lab Sample ID: 890-1750-74

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 03:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		10			15750	12/30/21 18:19	CH	XEN MID

Client Sample ID: SW-30

Lab Sample ID: 890-1750-75

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 02:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 03:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15514	12/24/21 18:29	SC	XEN MID
Soluble	Analysis	300.0		10			15750	12/30/21 18:27	CH	XEN MID

Client Sample ID: SW-31

Lab Sample ID: 890-1750-76

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 02:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 04:20	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		10			15751	12/31/21 13:19	CH	XEN MID

Client Sample ID: SW-32

Lab Sample ID: 890-1750-77

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 02:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 04:40	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-32

Lab Sample ID: 890-1750-77

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		10			15751	12/31/21 13:27	CH	XEN MID

Client Sample ID: SW-33

Lab Sample ID: 890-1750-78

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 03:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 05:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		10			15751	12/31/21 13:36	CH	XEN MID

Client Sample ID: SW-34

Lab Sample ID: 890-1750-79

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 03:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 05:22	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		10			15751	12/31/21 13:44	CH	XEN MID

Client Sample ID: SW-35

Lab Sample ID: 890-1750-80

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	15712	12/29/21 09:08	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15781	01/01/22 04:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15708	12/29/21 09:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15783	12/31/21 05:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		10			15751	12/31/21 14:09	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-36

Lab Sample ID: 890-1750-81

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 15:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15825	12/31/21 12:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		5			15751	12/31/21 14:18	CH	XEN MID

Client Sample ID: SW-37

Lab Sample ID: 890-1750-82

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 15:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15825	12/31/21 13:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		5			15751	12/31/21 14:26	CH	XEN MID

Client Sample ID: SW-38

Lab Sample ID: 890-1750-83

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 17:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15659	12/28/21 13:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15677	12/29/21 15:44	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		5			15751	12/31/21 14:34	CH	XEN MID

Client Sample ID: SW-39

Lab Sample ID: 890-1750-84

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 17:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-39

Lab Sample ID: 890-1750-84

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	15659	12/28/21 13:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15677	12/29/21 16:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		5			15751	12/31/21 14:43	CH	XEN MID

Client Sample ID: SW-40

Lab Sample ID: 890-1750-85

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 17:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15659	12/28/21 13:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15677	12/29/21 16:26	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		5			15751	12/31/21 14:51	CH	XEN MID

Client Sample ID: SW-41

Lab Sample ID: 890-1750-86

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 18:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	15659	12/28/21 13:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15677	12/29/21 16:47	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		1			15751	12/31/21 15:16	CH	XEN MID

Client Sample ID: SW-42

Lab Sample ID: 890-1750-87

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 18:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15607	12/28/21 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15643	12/28/21 22:45	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Client Sample ID: SW-42

Lab Sample ID: 890-1750-87

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		1			15751	12/31/21 15:24	CH	XEN MID

Client Sample ID: SW-43

Lab Sample ID: 890-1750-88

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/22/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15845	01/03/22 18:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15607	12/28/21 08:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15643	12/28/21 23:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	15515	12/24/21 18:31	SC	XEN MID
Soluble	Analysis	300.0		1			15751	12/31/21 15:49	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
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	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		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: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

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

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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1750-1	BH-1	Solid	12/21/21 00:00	12/22/21 16:44	4
890-1750-2	BH-2	Solid	12/21/21 00:00	12/22/21 16:44	4
890-1750-3	BH-3	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-4	BH-4	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-5	BH-5	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-6	BH-6	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-7	BH-7	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-8	BH-8	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-9	BH-9	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-10	BH-10	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-11	BH-11	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-12	BH-12	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-13	BH-13	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-14	BH-14	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-15	BH-15	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-16	BH-16	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-17	BH-17	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-18	BH-18	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-19	BH-19	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-20	BH-20	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-21	BH-21	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-22	BH-22	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-23	BH-23	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-24	BH-24	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-25	BH-25	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-26	BH-26	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-27	BH-27	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-28	BH-28	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-29	BH-29	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-30	BH-30	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-31	BH-31	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-32	BH-32	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-33	BH-33	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-34	BH-34	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-35	BH-35	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-36	BH-36	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-37	BH-37	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-38	BH-38	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-39	BH-39	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-40	BH-40	Solid	12/21/21 00:00	12/22/21 16:44	30
890-1750-41	BH-41	Solid	12/21/21 00:00	12/22/21 16:44	30
890-1750-42	BH-42	Solid	12/21/21 00:00	12/22/21 16:44	30
890-1750-43	BH-43	Solid	12/21/21 00:00	12/22/21 16:44	30
890-1750-44	BH-44	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-45	BH-45	Solid	12/21/21 00:00	12/22/21 16:44	4.5
890-1750-46	SW-1	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-47	SW-2	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-48	SW-3	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-49	SW-4	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-50	SW-5	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-51	SW-6	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-52	SW-7	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-53	SW-8	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-54	SW-9	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Hallertau 5 Fed #4

Job ID: 890-1750-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1750-55	SW-10	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-56	SW-11	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-57	SW-12	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-58	SW-13	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-59	SW-14	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-60	SW-15	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-61	SW-16	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-62	SW-17	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4
890-1750-63	SW-18	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-64	SW-19	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-65	SW-20	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-66	SW-21	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-67	SW-22	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-68	SW-23	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-69	SW-24	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-70	SW-25	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-71	SW-26	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-72	SW-27	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-73	SW-28	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-74	SW-29	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-75	SW-30	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-76	SW-31	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-77	SW-32	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-78	SW-33	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-79	SW-34	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-80	SW-35	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-81	SW-36	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-82	SW-37	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-83	SW-38	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-84	SW-39	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-85	SW-40	Solid	12/21/21 00:00	12/22/21 16:44	4 - 30
890-1750-86	SW-41	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5
890-1750-87	SW-42	Solid	12/21/21 00:00	12/22/21 16:44	0 - 2
890-1750-88	SW-43	Solid	12/21/21 00:00	12/22/21 16:44	0 - 4.5

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

890-1750 Chain of Custody



Page 1 of 9

Client Name: Cimarex		Site Manager: Brittany Long	
Project Name: Hallertau 5 Fed #4		Project #: 212C-MD-02564	
Project Location: Lea County, New Mexico		Project #: 212C-MD-02564	
Invoice to: Cimarex - Laci Luig		Sampler Signature: Ezequiel Moreno	
Receiving Laboratory: Eurofins Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)		
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			ICE	None
	BH-1 (4)	12/22/2021	12:21 P.M.	X				X			
	BH-2 (4)	12/22/2021		X				X			
	BH-3 (4.5)	12/22/2021		X				X			
	BH-4 (4.5)	12/22/2021		X				X			
	BH-5 (4.5)	12/22/2021		X				X			
	BH-6 (4.5)	12/22/2021		X				X			
	BH-7 (4.5)	12/22/2021		X				X			
	BH-8 (4.5)	12/22/2021		X				X			
	BH-9 (4.5)	12/22/2021		X				X			
	BH-10 (4.5)	12/22/2021		X				X			

Relinquished by: <i>[Signature]</i>	Date: 12/22/21	Time: 1644	Received by: <i>[Signature]</i>	Date: 12-22-21	Time: 1644
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB USE ONLY	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			

Sample Temperature	2.0
1.8	

REMARKS:	☒ STANDARD
☐ RUSH. Same Day 24 hr - 48 hr - 72 hr	
☐ Rush Charges Authorized	
☐ Special Report Limits or TRRP Report	

(Circle) HAND DELIVERED FEDEX UPS Tracking #

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Analysis Request of Chain of Custody Record

Page 2 of 9



Tetra Tech, Inc.

 901 W. WAIN STREET, Suite 100
 Midland, Texas 79705
 Tel: (432) 682-4559 Fax: (432) 682-3846

Client Name:		Cimarex		Site Manager:		Brittany Long	
Project Name:		Hallertau 5 Fed #4		Project #:		212C-MD-02564	
Project Location: (county, state)		Lea County, New Mexico					
Invoice to:		Cimarex - Laci Luig		Sampler Signature:		Ezequiel Moreno	
Receiving Laboratory:		Eurofins Xenco					
Comments:							

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None			
		YEAR 2020										
	BH-11 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			BTEX 8021B BTEX 8260B
	BH-12 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			TPH TX1005 (Ext to C35)
	BH-13 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			TPH 8015M (GRO - DRO - ORO - MRO)
	BH-14 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			PAH 8270C
	BH-15 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			Total Metals Ag As Ba Cd Cr Pb Se Hg
	BH-16 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			TCLP Metals Ag As Ba Cd Cr Pb Se Hg
	BH-17 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			TCLP Volatiles
	BH-18 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			TCLP Semi Volatiles
	BH-19 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			RCI
	BH-20 (4.5)	12/22/2021	12:21/21 E.M.	X	X	X	X	X	X			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

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>[Signature]</i>	12/22/21	1644	<i>[Signature]</i>	12-22-21	1644
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Relinquished by:	Date:	Time:	Received by:	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

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Analysis Request of Custody Record



Tetra Tech, Inc.

30100 West Street, Suite 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Page 3 of 9

Client Name: Cimarex		Site Manager: Brittany Long	
Project Name: Hallertau 5 Fed #4		Project #: 212C-MD-02564	
Project Location: Lea County, New Mexico		Project #: 212C-MD-02564	
Invoice to: Cimarex - Laci Luig		Sampler Signature: Ezequiel Moreno	
Receiving Laboratory: Eurofins Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)		
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			ICE	None
		YEAR 2020	DATE	TIME							
	BH-21 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-22 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-23 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-24 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-25 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-26 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-27 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-28 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-29 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		
	BH-30 (4.5)	12/22/2021	12:21	X	X	X	X	X	X		

Relinquished by: <i>[Signature]</i> Date: 12/22/21 Time: 1645	Received by: <i>[Signature]</i> Date: 12-22-21 Time: 1446
Relinquished by: _____ Date: _____ Time: _____	Received by: _____ Date: _____ Time: _____
Relinquished by: _____ Date: _____ Time: _____	Received by: _____ 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

ANALYSIS REQUEST (Circle or Specify Method No.) 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

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(Circle) HAND DELIVERED FEDEX UPS Tracking #

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

901W Main Street, Ste 100
Midland, Texas 79705
Tel (432) 662-4559
Fax (432) 682-3946

Client Name: Cimarex		Site Manager: Brittany Long	
Project Name: Hallertau 5 Fed #4		Project #: 212C-MD-02564	
Project Location: Lea County, New Mexico		Project #:	
Invoice to: Cimarex - Laci Luig		Sampler Signature: Ezequiel Moreno	
Receiving Laboratory: Eurofins Xenco		Comments:	
LAB # LAB USE ONLY		SAMPLE IDENTIFICATION	
BH-31 (4.5')		12/22/2021 12:21 P.M.	
BH-32 (4.5')		12/22/2021	
BH-33 (4.5')		12/22/2021	
BH-34 (4.5')		12/22/2021	
BH-35 (4.5')		12/22/2021	
BH-36 (4.5')		12/22/2021	
BH-37 (4.5')		12/22/2021	
BH-38 (4.5')		12/22/2021	
BH-39 (4.5')		12/22/2021	
BH-40 (30')		12/22/2021	
Relinquished by: [Signature]		Received by: [Signature]	
Date: 12/22/21		Date: 12/22/21	
Time: 1646		Time: 1644	
Relinquished by:		Received by:	
Date:		Date:	
Time:		Time:	
Relinquished by:		Received by:	
Date:		Date:	
Time:		Time:	

LAB USE ONLY		REMARKS:	
STANDARD		☒ STANDARD	
RUSH		☐ RUSH Same Day 24 hr 48 hr 72 hr	
Special Report Limits or TRRP Report		☐ 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		Hold	
-----------------------	--	-------------------------	--	------------------------------------	--	-----------	--	--------------------------------------	--	-------------------------------------	--	----------------	--	---------------------	--	-----	--	------------------------	--	----------------------------	--	------------------	--	------	--	----------------	--	----------	--	----------------------	--	---	--	----------------------	--	------	--

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Tetra Tech, Inc.

götv Valli Stiehl. Sie 100

Midland, Texas 79703

Tel (432) 682-4559

7

Brittany Long

212C-MD-02564

Ezequiel Morenc

SAMPLE IDENTIFICATION

SAMPLING

**PRESERVATIVE
METHOD**

RS
N)

DATE	2/1/21
TIME	E.M

WATER
SOIL
HCL
HNO ₃
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.)

LAB USE ONLY

REMARKS: ☒ STANDARD

Sample Temperature ☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

REMARKS:

☒ STANDARD

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

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(Circle)	HAND DELIVERED	FEDEX	UPS	Tracking #

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 3017W West Street, Ste 100
 Midland, Texas 79705
 Tel (432) 662-4559
 Fax (432) 682-3948

Page 6 of 9

Client Name:		Cimarex		Site Manager:		Brittany Long	
Project Name:		Hallertau 5 Fed #4		Project #:		212C-MD-02564	
Project Location: (county, state)		Lea County, New Mexico					
Invoice to:		Cimarex - Laci Luig		Sampler Signature:		Ezequiel Moreno	
Receiving Laboratory:		Eurofins Xenco		Comments:			
LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
		YEAR: 2020	DATE				
	SW-6 (0-4.5)	12/21/21	EM.				
	SW-7 (0-4.5)	12/22/2021		X		X	
	SW-8 (0-4.5)	12/22/2021		X		X	
	SW-9 (0-4.5)	12/22/2021		X		X	
	SW-10 (0-4)	12/22/2021		X		X	
	SW-11 (0-4)	12/22/2021		X		X	
	SW-12 (0-4)	12/22/2021		X		X	
	SW-13 (0-4)	12/22/2021		X		X	
	SW-14 (0-4)	12/22/2021		X		X	
	SW-15 (0-4)	12/22/2021		X		X	
Relinquished by:	Date:	Time:	Received by:	Date:	Time:		
Hand Mue	12/22/21	1647	Roe	12-22-21	1644		
Relinquished by:	Date:	Time:	Received by:	Date:	Time:		

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB USE ONLY	REMARKS:	☒ STANDARD
		☐ RUSH: Same Day 24 hr 48 hr 72 hr
Sample Temperature	☐ 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		
Hold		

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

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Analysis Request of Chain of Custody Record

Page 7 of 9



Tetra Tech, Inc.

 5017W Wall Street, Ste 100
 Midland, Texas 79705
 Tel (432) 682-4559
 Fax (432) 682-3848

Client Name: Cimarex		Site Manager: Brittany Long	
Project Name: Hallertau 5 Fed #4		Project #: 212C-MD-02564	
Project Location: Lea County, New Mexico			
Invoice to: Cimarex - Laci Luig		Sampler Signature: Ezequiel Moreno	
Receiving Laboratory: Eurofins Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None			
												YEAR
	SW-16 (0-4')	12/22/2021	EM		X			X				
	SW-17 (0-4')	12/22/2021			X			X				
	SW-18 (4-30')	12/22/2021			X			X				
	SW-19 (4-30')	12/22/2021			X			X				
	SW-20 (4-30')	12/22/2021			X			X				
	SW-21 (4-30')	12/22/2021			X			X				
	SW-22 (4-30')	12/22/2021			X			X				
	SW-23 (4-30')	12/22/2021			X			X				
	SW-24 (4-30')	12/22/2021			X			X				
	SW-25 (4-30')	12/22/2021			X			X				

Relinquished by: <i>[Signature]</i> Date: 12/22/21 Time: 1647	Received by: <i>[Signature]</i> Date: 12-22-21 Time: 1644
Relinquished by: _____ Date: _____ Time: _____	Received by: _____ 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

ANALYSIS REQUEST (Circle or Specify Method No.) 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
--

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 901 W. Wall Street, Suite 100
 Midland, Texas 79705
 Tel (432) 692-4558
 Fax (432) 692-3946

Page 8 of 9

Client Name: Cimarex		Site Manager: Brittany Long	
Project Name: Hallertau 5 Fed #4		Project #: 212C-MD-02564	
Project Location: Lea County, New Mexico		Project #: 212C-MD-02564	
Invoice to: Cimarex - Laci Luig		Sampler Signature: Ezequiel Moreno	
Receiving Laboratory: Eurofins Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
										YEAR: 2020			12/21/21
	SW-26 (4-30')	12/22/2021	EM.	X				X					
	SW-27 (4-30')	12/22/2021		X				X					
	SW-28 (4-30')	12/22/2021		X				X					
	SW-29 (4-30')	12/22/2021		X				X					
	SW-30 (4-30')	12/22/2021		X				X					
	SW-31 (4-30')	12/22/2021		X				X					
	SW-32 (4-30')	12/22/2021		X				X					
	SW-33 (4-30')	12/22/2021		X				X					
	SW-34 (4-30')	12/22/2021		X				X					
	SW-35 (4-30')	12/22/2021		X				X					

Relinquished by: <i>[Signature]</i> 12/22/21 1647	Received by: <i>[Signature]</i> 12/22/21 1649
Date: 12/22/21	Date: 12/22/21
Time: 1647	Time: 1649
Relinquished by:	Received by:
Date:	Date:
Time:	Time:

Relinquished by:	Date:	Time:
Received by:	Date:	Time:

ORIGINAL COPY

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB USE ONLY	REMARKS:
☒ STANDARD	
☐ RUSH: Same Day 24 hr 48 hr 72 hr	
☐ Rush Charges Authorized	
☐ Special Report Limits or TRRP Report	

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Analysis Request of Chain of Custody Record

Page 9 of 9



Tetra Tech, Inc.

 901 W. Vian Street, Suite 100
 Midland, Texas 79705
 Tel (432) 682-4559
 Fax (432) 682-3846

Client Name:		Cimarex		Site Manager:		Brittany Long	
Project Name:		Hallertau 5 Fed #4		Project #:		212C-MD-02564	
Project Location: (county, state)		Lea County, New Mexico		Project #:		212C-MD-02564	
Invoice to:		Cimarex - Laci Luig		Sampler Signature:		Ezequiel Moreno	
Receiving Laboratory:		Eurofins Xenco		Sampler Signature:		Ezequiel Moreno	
Comments:							

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
										YEAR: 2020			12/21/21
	SW-36 (4-30')	12/22/2021	11:00 A.M.	X	X			X					
	SW-37 (4-30')	12/22/2021		X	X			X					
	SW-38 (4-30')	12/22/2021		X	X			X					
	SW-39 (4-30')	12/22/2021		X	X			X					
	SW-40 (4-30')	12/22/2021		X	X			X					
	SW-41 (0-4.5')	12/22/2021		X	X			X					
	SW-42 (0-2')	12/22/2021		X	X			X					
	SW-43 (0-4.5')	12/22/2021		X	X			X					

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>E. M. Luig</i>	12/22/21	1647	<i>Joe C. G.</i>	12-22-21	1644
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

ORIGINAL COPY

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB USE ONLY	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			

REMARKS:	
☒ STANDARD	
☐ RUSH: Same Day 24 hr 48 hr 72 hr	
☐ Rush Charges Authorized	
☐ Special Report Limits or TRRP Report	

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-1750-1

SDG Number: Lea County NM

Login Number: 1750

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, 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: 890-1750-1

SDG Number: Lea County NM

Login Number: 1750

List Source: Eurofins Xenco, Midland

List Number: 2

List Creation: 12/23/21 01:03 PM

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	

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 76314

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld Street Midland, TX 79701	OGRID: 162683
	Action Number: 76314
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	Closure Report Received and approved.	2/21/2022