

Incident ID	NRM2027235655
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: Todd Wells Title: Environmental Specialist
Signature: Todd Wells Date: 8/11/21
email: Todd_Wells@eogresources.com Telephone: (432) 686-3613

OCD Only

Received by: Chad Hensley Date: 09/14/2021

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

Closure Approved by: Chad Hensley Date: 09/14/2021
Printed Name: Chad Hensley Title: Environmental Specialist Advanced

SITE INFORMATION

Report Type: Closure Report NRM2027235655

General Site Information:

Site:	Jackson Fed SWD #1 Pipeline					
Company:	EOG Resources					
Section, Township and Range	Unit M	Sec. 01	T 25S	R 32E		
Lease Number:						
County:	Lea County					
GPS:	32.15554			-103.634813		
Surface Owner:	BLM					
Mineral Owner:						
Directions:	From the intersection of NM-128 and 1, head South on CR-1/ORLA HWY and follow for 4.8 miles. Turn left on lease road, follow for 2.21 miles. Turn left and follow the right of way for 0.21 miles to the spill, the spill is located on a pipeline right of way North of the Farber Bob Fed 1H tank battery.					

Release Data:

Date Released:	8/30/2020
Type Release:	Oil & Produced Water
Source of Contamination:	Pipeline
Fluid Released:	1 bbl oil & 19 bbl produced water
Fluids Recovered:	1 bbl oil & 14 bbl produced water

Official Communication:

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

Site Characterization

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

Recommended Remedial Action Levels (RRALs)

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

**TETRA TECH**

August 11, 2021

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

Re: Closure Report for the EOG Resources, Jackson Fed SWD #1 Pipeline, Unit M, Section 1, Township 25 South, Range 32 East, Lea County, New Mexico. NRM2027235655

Oil Conservation Division:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess and remediate a release that occurred at the EOG Resources, Jackson Fed SWD #1 Pipeline, Unit M, Section 1, Township 25 South, Range 32 East, Lea County, New Mexico (Site). The site coordinates are 32.155540°, -103.634813°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the release was discovered on August 30, 2020, and released approximately 1 barrel of oil and 19 barrels of produced water due to a closed valve causing a pipeline rupture. Approximately 1 barrel of oil and 14 barrels of produced water were recovered. The release occurred on a pipeline road, impacting an area measuring approximately 104' x 35' and migrated southwest following two truck tracks for an additional extent of 104' x 13'. The C-141 form is included in Appendix A.

Site Characterization

A site characterization was performed for the site and no 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. Additionally, the site is located in a low karst potential area.

The nearest well is listed on the New Mexico Office of the State Engineers (NMOSE) database, is in section 05 approximately 2.37 miles from the site, and has a reported depth to groundwater of 90' below surface. Additionally, a well listed on the USGS National Water Information System is in section 05 approximately 2.38 miles northeast of the site, and has a reported depth to groundwater of 118.81' feet below surface.

Tetra Tech

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

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



TETRA TECH

Additionally, during the investigation activities, a groundwater determination bore hole was drilled at the site to a total depth of 55' feet below surface, and no water was encountered during drilling. The groundwater determination bore was left open then inspected 72 hours following drilling and was no groundwater was detected. Site characterization data is included in Appendix B, and bore logs are included in Appendix C.

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 upon 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 Analytical Results

Initial Assessment

On September 30, 2020, Tetra Tech personnel were onsite to evaluate and sample the release area. A total of six (6) auger holes (AH-1 through AH-6) were installed in the release footprint with depths ranging from surface to 4.0'-4.5' below surface. Additionally, six (6) horizontals were installed to horizontally delineate the spill footprint. Selected samples were submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The sample locations are shown in Figure 3.

Referring to Table 1, none of the samples reported benzene or total BTEX concentrations above the RRALs. However, all auger holes (AH-1 through AH-6) reported total TPH concentrations above the 100 mg/kg threshold in the top 4.0' of soil, with concentrations ranging from 110 mg/kg to 11,300 mg/kg. Additionally, the area of auger hole (AH-1) reported a TPH (GRO + DRO) concentration above the RRAL, with a total concentration of 2,173 mg/kg, at a depth of 4.0'-4.5' below surface. However, chloride concentrations were also detected above 600 mg/kg threshold in the 4.0' of soil, in the areas of auger holes (AH-1, AH-4, and AH-6), with concentrations ranging from 665 mg/kg to 2,560 mg/kg. Additionally, vertical delineation was found in the areas of auger holes (AH-2 through AH-6), at depths ranging from 1.0'-3.5' below surface. However, vertical delineation was not found at auger hole (AH-1).

Bore Hole

Based on the laboratory data, Tetra Tech personnel returned to the site on December 8, 2020, to install one borehole (Bore Hole-1) to a total depth of 12'-13' below surface to vertically define the chlorides and hydrocarbon impact in the area of auger hole (AH-1). TPH concentrations were reported above the 100 mg/kg threshold in the top 4.0' of soil, with concentrations ranging

**TETRA TECH**

from 110 mg/kg to 355 mg/kg, at depths ranging from surface to 5.0 below surface. However, chloride concentrations were reported above 600 mg/kg threshold in the top 4.0' of soil, with concentrations ranging from 665 mg/kg to 1,920 mg/kg, at depths ranging from surface to 3.0' below surface. Additionally, vertical delineation was found at 6.0' below surface. All collected soil samples were submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The borehole drilling log is included in Appendix C. The sample locations are shown on Figure 3.

Remediation and Reclamation Activities

Tetra Tech personnel were onsite May 10, 2020, through May 13, 2020, to supervise the remediation and collect confirmation samples. The impacted areas were excavated to depths ranging from 2.0' below surface and 4.5' below surface, as shown on Figure 4 and Table 2.

Confirmation bottom hole and sidewall samples were collected every 200 square feet, a total of 22 bottom hole samples (BH-1 through BH-22) and 11 sidewall samples (SW-1 through SW-11) were collected to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 modified, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are 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 4.

Referring to Table 2, all final confirmation samples collected showed benzene, total BTEX, TPH, and chloride concentrations below the RRALs.

Approximately 506 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, EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Handwritten signature of Ezequiel Moreno Flores in black ink.

Ezequiel Moreno Flores,
Geologist

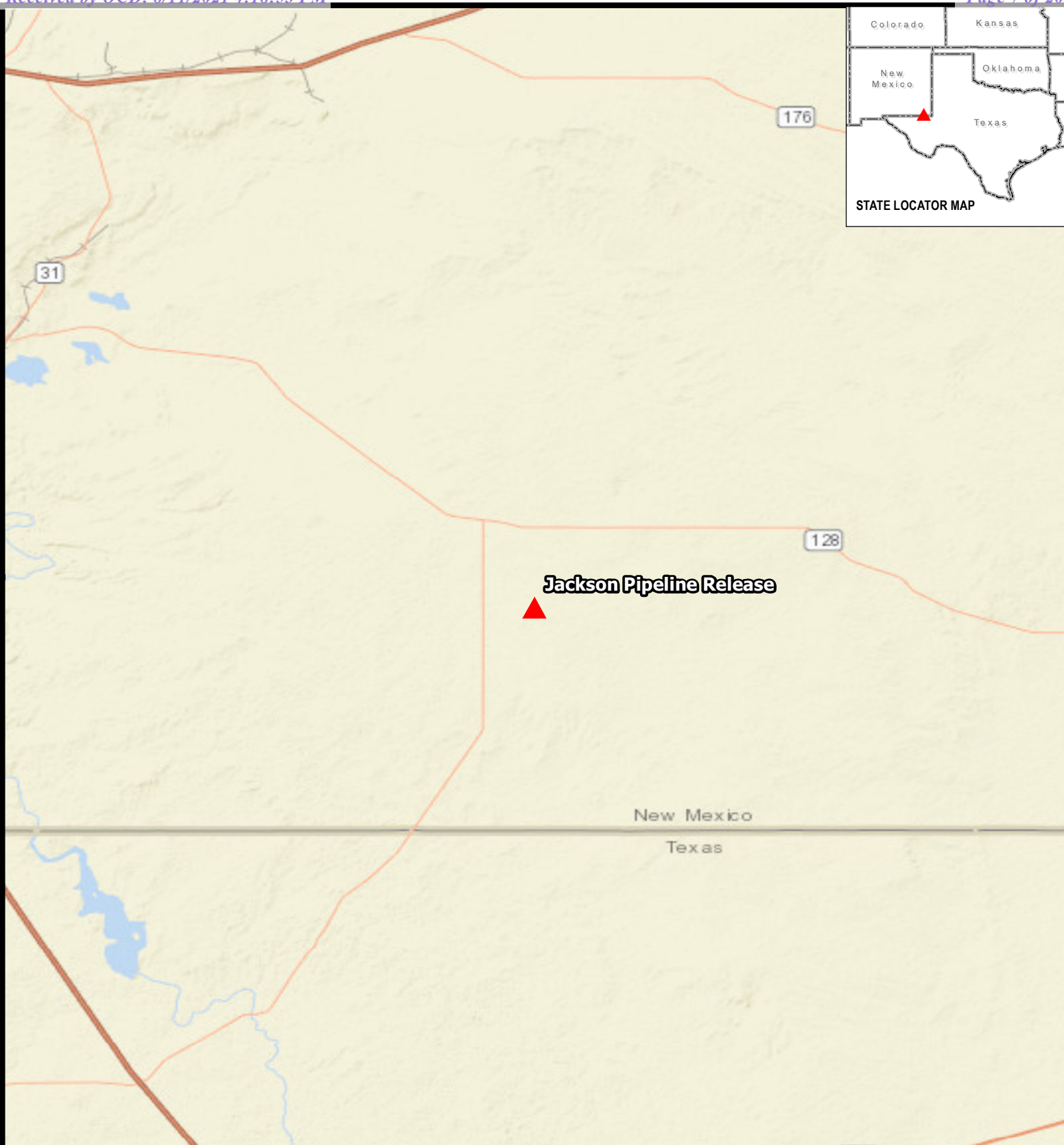
Handwritten signature of Brittany Long in black ink.

Brittany Long,
Project Manager

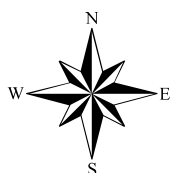
Handwritten signature of Clair Gonzales in blue ink.

Clair Gonzales, P.G.
Senior Project Manager

Figures



▲ SITE LOCATION



0 4 8 Miles
Approximate Scale

OVERVIEW MAP
JACKSON PIPELINE RELEASE
Property located at coordinates 32.15540°, -103.634813°
LEA COUNTY, NEW MEXICO



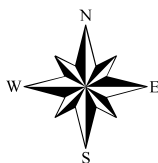
Project #:
212C-MD-02329

FIGURE
1

Service Layer Credits: ESRI Basemap - Streets, 2021.



SITE LOCATION



0 500 1,000 2,000

Approximate Scale in Feet

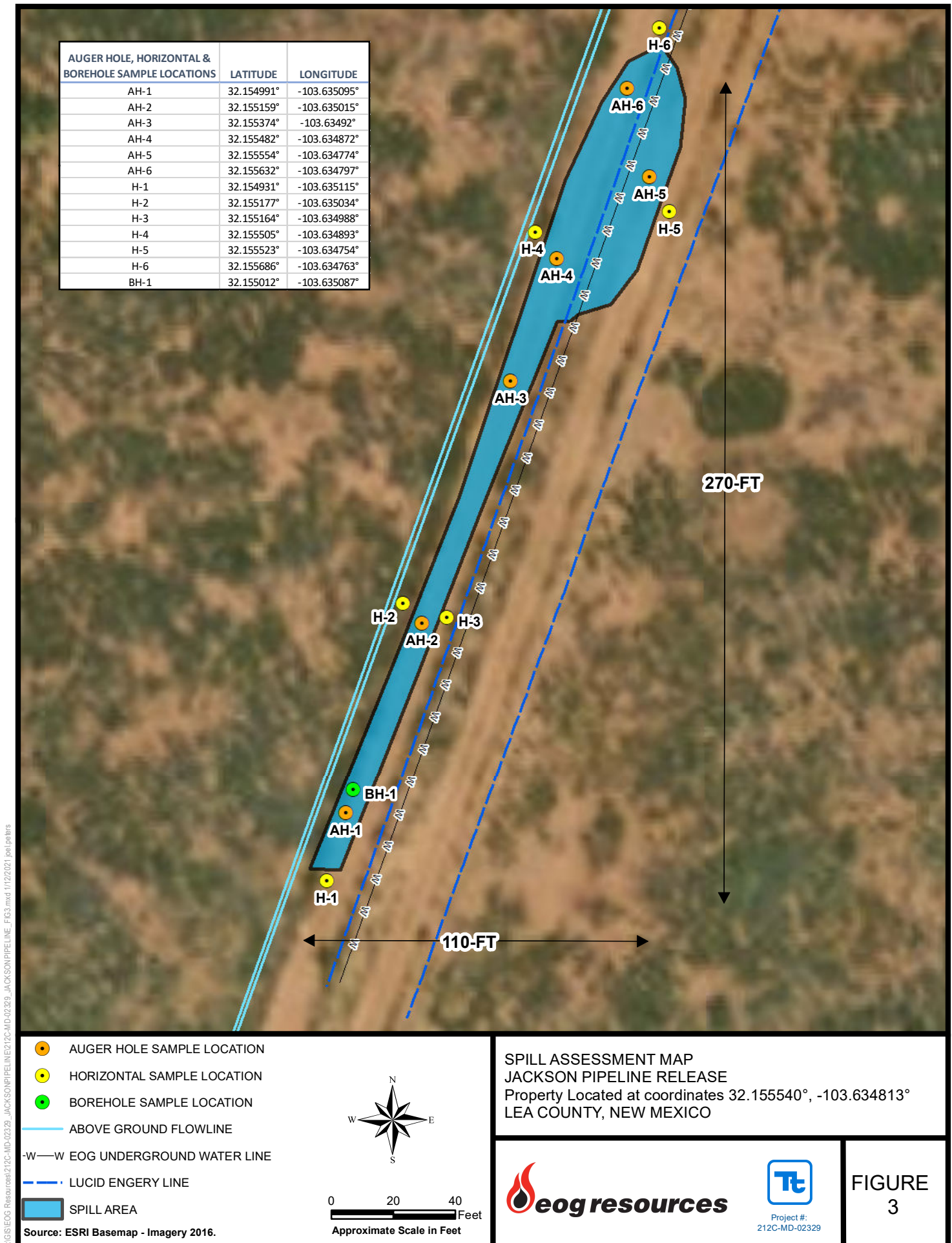
Service Layer Credits: USGS, The National Map,
Topo Base, 2021.

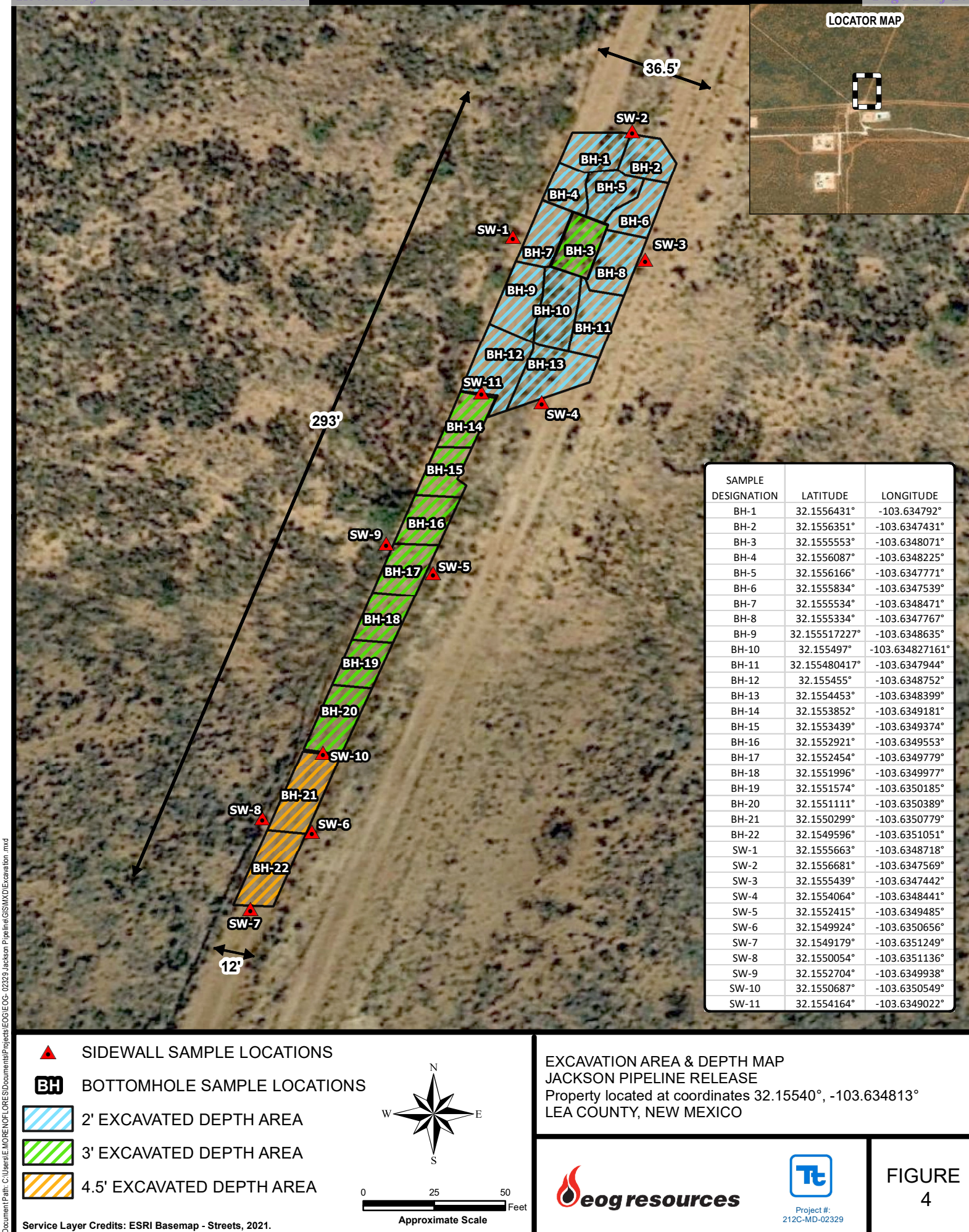
TOPOGRAPHIC MAP
JACKSON PIPELINE RELEASE
Property located at coordinates 32.15540°, -103.634813°
LEA COUNTY, NEW MEXICO



Project #:
212C-MD-02329

FIGURE
2





Tables

Table 1
EOG
Jackson Pipeline Release
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
AH-1	9/30/2020	0-1.0	X		1,810	8,690	769	11,300	1.72	1.50	2.41	32.0	37.6	83.0
	"	1.0-1.5	X		784	3,770	343	4,900	0.621	0.844	1.74	7.88	11.1	94.9
	"	2.0-2.5	X		<49.8	305	<49.8	305	<0.00200	<0.00200	0.00380	0.0114	0.0152	437
	"	3.0-3.5	X		<50.0	503	<50.0	503	<0.00202	<0.00202	0.0202	0.123	0.143	1,050
	"	4.0-4.5	X		113	2,060	114	2,290	0.00361	0.00342	0.0462	0.587	0.640	1,830
Bore Hole-1	12/8/2020	0-1.0	X		<50.0	302	<50.0	302	<0.00200	0.00442	<0.00200	0.03170	0.03612	665
	"	2.0-3.0	X		<49.8	355	<49.8	355	<0.00202	0.00805	<0.00202	0.05720	0.06525	1,920
	"	4.0-5.0	X		<50.0	110	<50.0	110	<0.00200	0.00797	<0.00200	0.01600	0.02397	52.0
	"	6.0-7.0	X		<49.9	63.8	<49.9	63.8	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	23.6
	"	8.0-9.0	X		<50.0	81.3	<50.0	81.3	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	21.6
	"	10.0-11.0	X		<49.9	65.3	<49.9	65.3	<0.00202	<0.00202	<0.00202	<0.002020	<0.002020	14.1
	"	12.0-13.0	X		<50.0	58.8	<50.0	58.8	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	50.3
AH-2	9/30/2020	0-1.0	X		<50.0	187	<50.0	187	<0.00202	<0.00202	0.00393	0.0162	0.0201	27.9
	"	1.0-1.5	X		<50.0	<50.0	<50.0	<50.0	-	-	-	-	-	23.0
	"	2.0-2.5	X		<50.0	<50.0	<50.0	<50.0	-	-	-	-	-	20.6
	"	3.0-3.5	X		-	-	-	-	-	-	-	-	-	20.1
	"	4.0-4.5	X		-	-	-	-	-	-	-	-	-	14.5
AH-3	9/30/2020	0-1.0	X		188	2,180	230	2,600	0.00210	0.00325	0.119	0.333	0.457	63.5
	"	1.0-1.5	X		<49.9	426	<49.9	426	<0.00200	<0.00200	<0.00200	0.00211	0.00211	51.9
	"	2.0-2.5	X		<49.8	136	<49.8	136	-	-	-	-	-	43.9
	"	3.0-3.5	X		<49.9	55.2	<49.9	55.2	-	-	-	-	-	48.2
	"	4.0-4.5	X		<50.0	79.1	<50.0	79.1	-	-	-	-	-	124
AH-4	9/30/2020	0-1.0	X		<49.9	1,430	195	1,630	<0.00200	<0.00200	<0.00200	0.00909	0.00909	1,150
	"	1.0-1.5	X		<49.9	423	<49.9	423	-	-	-	-	-	385
	"	2.0-2.5	X		<49.8	111	<49.8	111	-	-	-	-	-	105
	"	3.0-3.5	X		<50.0	83.7	<50.0	83.7	-	-	-	-	-	60.3
	"	4.0-4.5	X		<49.9	<49.9	<49.9	<49.9	-	-	-	-	-	92.6
AH-5	9/30/2020	0-1.0	X		<49.9	213	<49.9	213	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	26.0
	"	1.0-1.5	X		<50.0	143	<50.0	143	-	-	-	-	-	90.2
	"	2.0-2.5	X		<50.0	85.7	<50.0	85.7	-	-	-	-	-	24.5
	"	3.0-3.5	X		-	-	-	-	-	-	-	-	-	<4.98
	"	4.0-4.5	X		-	-	-	-	-	-	-	-	-	14.0
AH-6	9/30/2020	0-1.0	X		239	3,170	331	3,740	0.0979	0.131	2.00	10.2	12.4	2,560
	"	1.0-1.5	X		114	1,730	88.0	1,930	<0.00202	<0.00202	0.00481	0.0662	0.0710	1,470
	"	2.0-2.5	X		<49.9	56.3	<49.9	56.3	-	-	-	-	-	113
	"	3.0-3.5	X		<49.9	<49.9	<49.9	<49.9	-	-	-	-	-	55.3
	"	4.0-4.5	X		<50.0	<50.0	<50.0	<50.0	-	-	-	-	-	23.3

Table 1
EOG
Jackson Pipeline Release
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						
H-1	9/30/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<5.02
H-2	9/30/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	9.3
H-3	9/30/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<5.04
H-4	9/30/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	34.5
H-5	9/30/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	13.6
H-6	9/30/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	21.9

(-)

Not Analyzed



Exceeds Thresholds

Table 2
EOG
Jackson Pipeline Release
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	5/19/2021	2	X	-	<49.9	69.3	<49.9	69.3	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	192
BH-2	5/19/2021	2	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	591
BH-3	5/19/2021	3	X	-	<49.8	<49.8	<49.8	<49.8	0.00231	<0.00199	<0.00199	<0.00398	<0.00398	8.79
BH-4	5/19/2021	2	X	-	<49.9	74.2	<49.9	74.2	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	196
BH-5	5/19/2021	2	X	-	<49.8	<49.8	<49.8	<49.8	0.00224	<0.00202	<0.00202	<0.00404	<0.00404	10.4
BH-6	5/19/2021	2	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	8.72
BH-7	5/19/2021	2	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	201
BH-8	5/19/2021	2	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	8.09
BH-9	5/19/2021	2	X	-	<50.0	65.2	<50.0	65.2	0.00239	<0.00199	<0.00199	<0.00398	<0.00398	55.8
BH-10	5/19/2021	2	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	55.2
BH-11	5/19/2021	2	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	56.3
BH-12	5/19/2021	2	X	-	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	598
BH-13	5/19/2021	2	X	-	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	574
BH-14	5/19/2021	3	X	-	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	15.5
BH-15	5/19/2021	3	X	-	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	13.5
BH-16	5/19/2021	3	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	13.6
BH-17	5/19/2021	3	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	36.6
BH-18	5/19/2021	3	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	40.3
BH-19	5/19/2021	3	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	39.8
BH-20	5/19/2021	3	X	-	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	35.4
BH-21	5/19/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	1,450
BH-22	5/19/2021	4.5	X	-	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,490
SW-1	5/19/2021	2	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	24.8
SW-2	5/19/2021	2	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	25

Table 2
EOG
Jackson Pipeline Release
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-3	5/19/2021	2	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	18
SW-4	5/19/2021	2	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	35.1
SW-5	5/19/2021	3	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	28.1
SW-6	5/19/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	25.6
SW-7	5/19/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	127
SW-8	5/19/2021	4.5	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	25.3
SW-9	5/19/2021	3	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	63.2
SW-10	5/19/2021	4.5	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	111
SW-11	5/19/2021	3	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	51.8

(-)

Not Analyzed

Photos

EOG Resources
Jackson Pipeline Release
Lea County, New Mexico



View of Remediation Activities – View North



View of Remediation Activities— View Southwest

EOG Resources
Jackson Pipeline Release
Lea County, New Mexico



View of Remediation Activities – View Southwest



View of Remediation Activities – View North

Appendix A

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	NRM2027235655
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.155540° Longitude -103.634813°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Jackson Fed SWD #1 Pipeline	Site Type Pipeline
Date Release Discovered 8/30/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
M	1	25S	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) 1	Volume Recovered (bbls) 1
☒ Produced Water	Volume Released (bbls) 19	Volume Recovered (bbls) 14
	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: During pipeline inspection a ruptured line was discovered due to a closed valve. Approximately 20 bbls of produced water and oil released in the ROW and 15 bbls was recovered.

Incident ID	NRM2027235655
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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☒ The source of the release has been stopped.	
☒ The impacted area has been secured to protect human health and the environment.	
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Todd Wells</u>	Title: <u>Environmental Specialist</u>
Signature: <u>Todd Wells</u>	Date: <u>9-24-20</u>
email: <u>Todd_Wells@eogresources.com</u>	Telephone: <u>(432) 686-3613</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>9/28/2020</u>

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B



USGS Home
Contact
Search

National Water Information System: Mapper



Site Information



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

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs

site_no list = 320956103353801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320956103353801 25S.33E.05.12122

Lea County, New Mexico

Latitude 32°09'59.4", Longitude 103°35'47.2" NAD83

Land-surface elevation 3,473.00 feet above NGVD29

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1981-03-25		D	107.83			2		U			A
1986-03-12		D	109.34			2		U			A
1991-06-06		D	107.58			2		U			A
1996-03-07		D	108.89			2	P	S			A
2013-01-17	09:00 MST	m	118.81			2	R	S	USGS		A

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
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Status	R	Site had been pumped recently.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?

Feedback on this web site

Automated retrievals

Help



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)						(NAD83 UTM in meters)	
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
NA	C 02312	1	2	1	05	25S	33E	632292	3559772
Driller License:		Driller Company:							
Driller Name:		UNKNOWN							
Drill Start Date:		01/01/1948		Drill Finish Date:		06/30/1948		Plug Date:	
Log File Date:				PCW Rev Date:				Source:	
Pump Type:				Pipe Discharge Size:				Estimated Yield:	
Casing Size:		6.38		Depth Well:		150 feet		Depth Water:	
								20 GPM	
								90 feet	

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

7/16/21 1:14 PM POINT OF DIVERSION SUMMARY

Low Karst
OG Resources
Jackson Pipeline Resources

Legend

-  High
-  Jackson Pipeline Release
-  Low
-  Medium

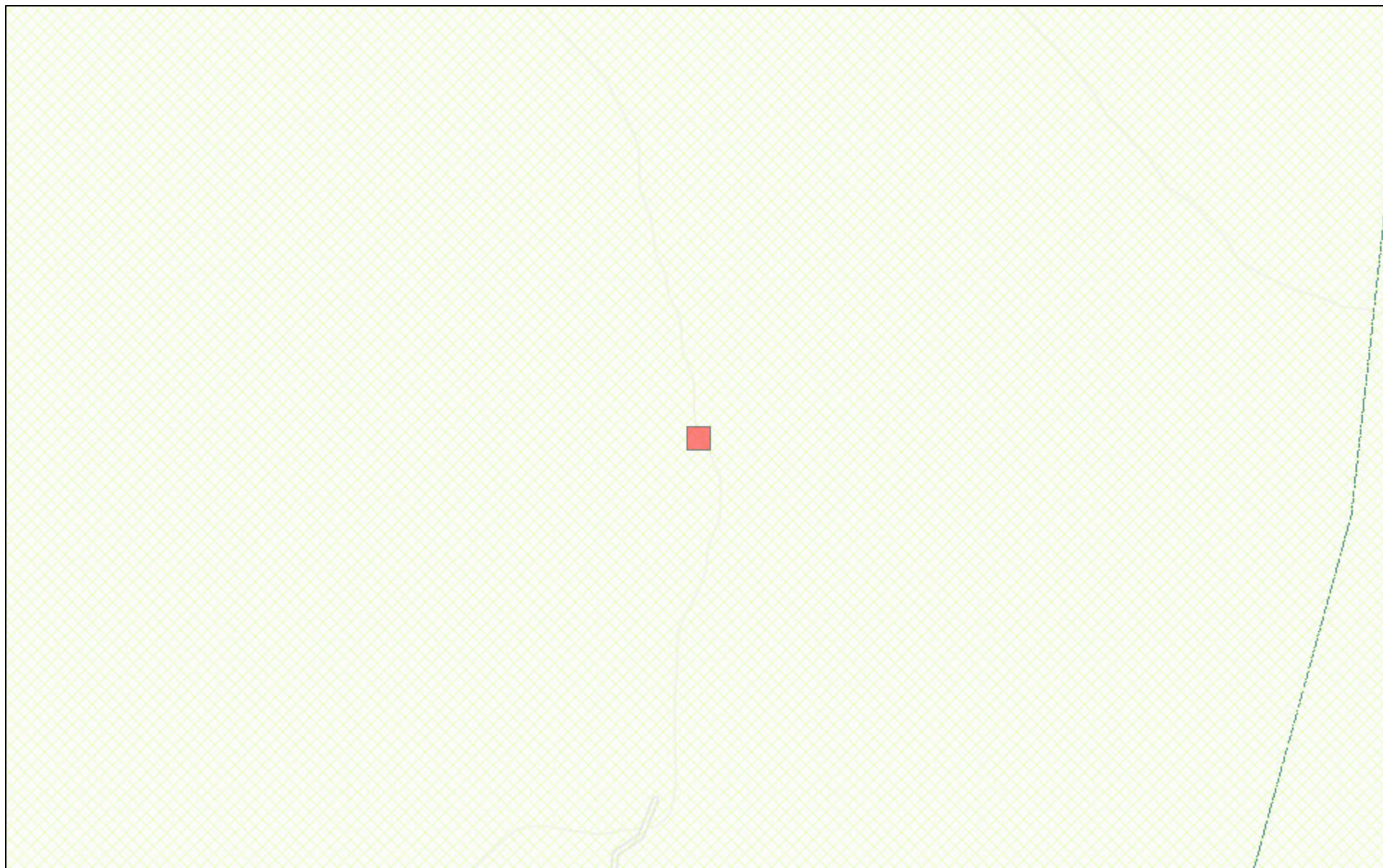
Jal Hwy

128

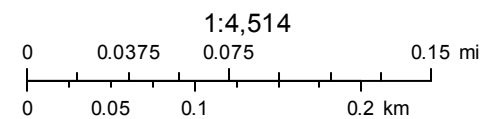
 Jackson Pipeline Release

Google Earth

New Mexico NFHL Data



October 4, 2020



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

Water Well Data
Average Depth to Groundwater (ft)
Jackson Pipeline Release
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	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	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	27	26	25
31	32	33	34	35	36

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

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


Borehole ID:
 BH1 (AH-1)

Soil Drilling Log

Project Name : Jackson Pipeline
Project No. : 212C-MD-02329
Location : Lea County, New Mexico
Coordinates : 32.15481, -103.63516
Elevation : N/A

Date : Tuesday, December 08, 2020
Sampler : CM, EM
Driller : HCI
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		fine silty SAND, reddish brown, high odor, high stain, dry	875 ppm		20				
2		fine silty SAND, reddish brown, high odor, low stain, dry	1.4 ppt		22				
4		silty SAND, light tan, moderate odor, no stain, dry	161 ppm		24				
6			118 ppm		26				
8			115 ppm		28				
10		silty SAND, light tan, low odor, no stain, dry	125 ppm	160 ppm	30				
12		silty SAND, light tan, no odor, no stain, dry	148 ppm	320 ppm	32				
14		Total Depth = 13'			34				
16					36				
18					38				
20					40				

* H.O. = Heavy Odor
 * H.S. = Heavy Staining

* L.O. = Low Odor
 * L.S. = Low Staining



Borehole ID:
GWDB

Soil Drilling Log

Project Name : Jackson Pipeline
Project No. : _____
Location : Lea County, New Mexico
Coordinates : 32.1530, -103.63481
Elevation : N/A

Date : Monday, December 07, 2020
Sampler : EM
Driller : HCI
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, powdery, dry			50				
5		fine SAND, reddish brown, dry			55		↓		
10					60		Total Depth = 55'		
15		silty SAND, light tan, dry			65				
20					70				
25		silty SAND, some silt granules 2cm, dry light tan			75				
30					80				
35		silty SAND, dark tan, some clay granules <1cm,			85				
40		Low plasticity clay, reddish brown, clay granules 1-2cm, dry			90				
45		sandy SILT, reddish brown, some clay granules 1-2cm			95				
50					100				

* H.O. = Heavy Odor
 * H.S. = Heavy Staining

* L.O. = Low Odor
 * L.S. = Low Staining

Appendix D

Certificate of Analysis Summary 674080

Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline Release

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea County, NM

Date Received in Lab: Thu 10.01.2020 14:00

Report Date: 10.08.2020 16:37

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674080-001	674080-002	674080-003	674080-004	674080-005	674080-006
	<i>Field Id:</i>	AH1 0-1'	AH1 1-1.5'	AH1 2-2.5'	AH1 3-3.5'	AH1 4-4.5'	AH2 0-1'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 14:15	09.30.2020 14:18	09.30.2020 14:21	09.30.2020 14:25	09.30.2020 14:30	09.30.2020 12:30
BTEX by EPA 8021B	<i>Extracted:</i>	10.03.2020 08:30	10.03.2020 08:30	10.03.2020 08:30	10.07.2020 12:00	10.07.2020 12:00	10.03.2020 08:30
	<i>Analyzed:</i>	10.03.2020 14:20	10.03.2020 14:40	10.03.2020 12:04	10.07.2020 14:23	10.07.2020 14:43	10.03.2020 12:25
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		1.72 0.0199	0.621 0.0200	<0.00200 0.00200	<0.00202 0.00202	0.00361 0.00201	<0.00202 0.00202
Toluene		1.50 0.0199	0.844 0.0200	<0.00200 0.00200	<0.00202 0.00202	0.00342 0.00201	<0.00202 0.00202
Ethylbenzene		2.41 0.0199	1.74 0.0200	0.00380 0.00200	0.0202 X 0.00202	0.0462 0.00201	0.00393 0.00202
m,p-Xylenes		23.5 D 0.199	5.24 0.0400	0.00485 0.00400	0.0692 X 0.00404	0.413 0.00402	0.00712 0.00403
o-Xylene		8.45 D 0.0994	2.64 0.0200	0.00650 0.00200	0.0537 X 0.00202	0.174 0.00201	0.00903 0.00202
Total Xylenes		32.0 0.0994	7.88 0.0200	0.0114 0.00200	0.123 0.00202	0.587 0.00201	0.0162 0.00202
Total BTEX		37.6 0.0199	11.1 0.0200	0.0152 0.00200	0.143 0.00202	0.640 0.00201	0.0201 0.00202
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15
	<i>Analyzed:</i>	10.03.2020 02:34	10.03.2020 02:39	10.03.2020 02:44	10.03.2020 02:50	10.03.2020 02:55	10.03.2020 03:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		83.2 4.95	94.9 4.98	437 5.05	1050 4.98	1830 X 25.3	27.9 5.03
TPH By SW8015 Mod	<i>Extracted:</i>	10.02.2020 11:00	10.02.2020 11:00	10.02.2020 11:00	10.07.2020 17:00	10.07.2020 17:00	10.02.2020 11:00
	<i>Analyzed:</i>	10.03.2020 08:14	10.02.2020 20:16	10.02.2020 20:35	10.08.2020 00:32	10.08.2020 00:51	10.02.2020 20:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		1810 250	784 49.9	<49.8 49.8	<50.0 50.0	113 49.9	<50.0 50.0
Diesel Range Organics (DRO)		8690 250	3770 49.9	305 49.8	503 50.0	2060 49.9	187 50.0
Motor Oil Range Hydrocarbons (MRO)		769 250	343 49.9	<49.8 49.8	<50.0 50.0	114 49.9	<50.0 50.0
Total TPH		11300 250	4900 49.9	305 49.8	503 50.0	2290 49.9	187 50.0

BRL - Below Reporting Limit

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Certificate of Analysis Summary 674080



Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline Release

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea County, NM

Date Received in Lab: Thu 10.01.2020 14:00

Report Date: 10.08.2020 16:37

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674080-007	674080-008	674080-009	674080-010	674080-011	674080-012
	<i>Field Id:</i>	AH2 1-1.5'	AH2 2-2.5'	AH2 3-3.5'	AH2 4-4.5'	AH3 0-1'	AH3 1-1.5'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 12:32	09.30.2020 12:35	09.30.2020 12:38	09.30.2020 12:40	09.30.2020 12:50	09.30.2020 12:52
BTEX by EPA 8021B	<i>Extracted:</i>					10.03.2020 08:30	10.07.2020 12:00
	<i>Analyzed:</i>					10.03.2020 12:46	10.07.2020 15:04
	<i>Units/RL:</i>					mg/kg RL	mg/kg RL
Benzene						0.00210 0.00199	<0.00200 0.00200
Toluene						0.00325 0.00199	<0.00200 0.00200
Ethylbenzene						0.119 0.00199	<0.00200 0.00200
m,p-Xylenes						0.131 0.00398	<0.00401 0.00401
o-Xylene						0.202 0.00199	0.00211 0.00200
Total Xylenes						0.333 0.00199	0.00211 0.00200
Total BTEX						0.457 0.00199	0.00211 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:15
	<i>Analyzed:</i>	10.03.2020 03:16	10.03.2020 03:32	10.03.2020 03:37	10.03.2020 03:42	10.03.2020 03:47	10.03.2020 03:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		23.0 4.99	20.6 4.96	20.1 5.00	14.5 4.95	63.5 5.04	51.9 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	10.07.2020 17:00	10.07.2020 17:00			10.02.2020 11:00	10.07.2020 17:00
	<i>Analyzed:</i>	10.08.2020 01:10	10.08.2020 01:29			10.02.2020 21:14	10.08.2020 01:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL			mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0			188 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0			2180 50.0	426 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0			230 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<50.0 50.0			2600 50.0	426 49.9

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Certificate of Analysis Summary 674080

Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline Release

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea County, NM

Date Received in Lab: Thu 10.01.2020 14:00

Report Date: 10.08.2020 16:37

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674080-013	674080-014	674080-015	674080-016	674080-017	674080-018
	<i>Field Id:</i>	AH3 2-2.5'	AH3 3-3.5'	AH3 4-4.5'	AH4 0-1'	AH4 1-1.5'	AH4 2-2.5'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 12:55	09.30.2020 12:58	09.30.2020 13:02	09.30.2020 13:10	09.30.2020 13:12	09.30.2020 13:15
BTEX by EPA 8021B	<i>Extracted:</i>				10.03.2020 08:30		
	<i>Analyzed:</i>				10.03.2020 13:39		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00200 0.00200		
Toluene					<0.00200 0.00200		
Ethylbenzene					<0.00200 0.00200		
m,p-Xylenes					0.00496 0.00399		
o-Xylene					0.00413 0.00200		
Total Xylenes					0.00909 0.00200		
Total BTEX					0.00909 0.00200		
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.02.2020 12:15	10.02.2020 12:15	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45
	<i>Analyzed:</i>	10.03.2020 03:58	10.03.2020 04:03	10.02.2020 15:37	10.02.2020 15:54	10.02.2020 16:00	10.02.2020 16:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		43.9 5.00	48.2 5.00	124 5.02	1150 4.96	385 4.99	105 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	10.07.2020 17:00	10.07.2020 17:00	10.07.2020 17:00	10.02.2020 11:00	10.07.2020 17:00	10.07.2020 17:00
	<i>Analyzed:</i>	10.08.2020 02:07	10.08.2020 02:26	10.08.2020 02:46	10.02.2020 21:33	10.08.2020 03:05	10.08.2020 03:43
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		136 49.8	55.2 49.9	79.1 50.0	1430 49.9	423 49.9	111 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.9 49.9	<50.0 50.0	195 49.9	<49.9 49.9	<49.8 49.8
Total TPH		136 49.8	55.2 49.9	79.1 50.0	1630 49.9	423 49.9	111 49.8

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Certificate of Analysis Summary 674080

Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline Release

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea County, NM

Date Received in Lab: Thu 10.01.2020 14:00

Report Date: 10.08.2020 16:37

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674080-019	674080-020	674080-021	674080-022	674080-023	674080-024
	<i>Field Id:</i>	AH4 3-3.5'	AH4 4-4.5'	AH5 0-1'	AH5 1-1.5'	AH5 2-2.5'	AH5 3-3.5'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 13:18	09.30.2020 13:21	09.30.2020 13:30	09.30.2020 13:35	09.30.2020 13:38	09.30.2020 13:42
BTEX by EPA 8021B	<i>Extracted:</i>			10.03.2020 08:30			
	<i>Analyzed:</i>			10.03.2020 13:59			
	<i>Units/RL:</i>			mg/kg RL			
Benzene				<0.00198 0.00198			
Toluene				<0.00198 0.00198			
Ethylbenzene				<0.00198 0.00198			
m,p-Xylenes				<0.00396 0.00396			
o-Xylene				<0.00198 0.00198			
Total Xylenes				<0.00198 0.00198			
Total BTEX				<0.00198 0.00198			
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45
	<i>Analyzed:</i>	10.02.2020 16:11	10.02.2020 16:28	10.02.2020 16:34	10.02.2020 16:39	10.02.2020 16:45	10.02.2020 16:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		60.3 5.04	92.6 4.99	26.0 4.96	90.2 5.00	24.5 5.02	<4.98 4.98
TPH By SW8015 Mod	<i>Extracted:</i>	10.07.2020 17:00	10.07.2020 17:00	10.02.2020 11:00	10.07.2020 17:00	10.07.2020 17:00	
	<i>Analyzed:</i>	10.08.2020 04:02	10.08.2020 04:22	10.02.2020 21:53	10.08.2020 04:41	10.08.2020 05:00	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	
Diesel Range Organics (DRO)		83.7 50.0	<49.9 49.9	213 49.9	143 50.0	85.7 50.0	
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	
Total TPH		83.7 50.0	<49.9 49.9	213 49.9	143 50.0	85.7 50.0	

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Certificate of Analysis Summary 674080



Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline Release

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea County, NM

Date Received in Lab: Thu 10.01.2020 14:00

Report Date: 10.08.2020 16:37

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674080-025	674080-026	674080-027	674080-028	674080-029	674080-030
	<i>Field Id:</i>	AH5 4-4.5'	AH6 0-1'	AH6 1-1.5'	AH6 2-2.5'	AH6 3-3.5'	AH6 4-4.5'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 13:46	09.30.2020 13:50	09.30.2020 13:56	09.30.2020 14:00	09.30.2020 14:05	09.30.2020 14:08
BTEX by EPA 8021B	<i>Extracted:</i>		10.03.2020 08:30	10.07.2020 12:00			
	<i>Analyzed:</i>		10.03.2020 15:01	10.07.2020 15:24			
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL			
Benzene			0.0979 0.0198	<0.00202 0.00202			
Toluene			0.131 0.0198	<0.00202 0.00202			
Ethylbenzene			2.00 0.0198	0.00481 0.00202			
m,p-Xylenes			6.74 0.0397	0.0467 0.00404			
o-Xylene			3.47 0.0198	0.0195 0.00202			
Total Xylenes			10.2 0.0198	0.0662 0.00202			
Total BTEX			12.4 0.0198	0.0710 0.00202			
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45
	<i>Analyzed:</i>	10.02.2020 16:56	10.02.2020 17:13	10.02.2020 17:19	10.02.2020 17:36	10.02.2020 17:41	10.02.2020 17:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		14.0 5.00	2560 25.0	1470 5.04	113 4.99	55.3 4.97	23.3 4.95
TPH By SW8015 Mod	<i>Extracted:</i>		10.02.2020 11:00	10.07.2020 17:00	10.07.2020 17:00	10.07.2020 17:00	10.07.2020 17:00
	<i>Analyzed:</i>		10.02.2020 22:12	10.08.2020 05:19	10.08.2020 05:38	10.08.2020 05:57	10.08.2020 06:16
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)			239 50.0	114 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)			3170 50.0	1730 50.0	56.3 49.9	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)			331 50.0	88.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Total TPH			3740 50.0	1930 50.0	56.3 49.9	<49.9 49.9	<50.0 50.0

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Certificate of Analysis Summary 674080



Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline Release

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea County, NM

Date Received in Lab: Thu 10.01.2020 14:00

Report Date: 10.08.2020 16:37

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674080-031	674080-032	674080-033	674080-034	674080-035	674080-036
	<i>Field Id:</i>	Horizontal 1 (0-1)	Horizontal 2 (0-1)	Horizontal 3 (0-1)	Horizontal 4 (0-1)	Horizontal 5 (0-1)	Horizontal 6 (0-1)
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 00:00	09.30.2020 00:00	09.30.2020 00:00	09.30.2020 00:00	09.30.2020 00:00	09.30.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	10.03.2020 08:30	10.03.2020 08:30	10.03.2020 08:30	10.03.2020 08:30	10.03.2020 08:30	10.03.2020 08:30
	<i>Analyzed:</i>	10.03.2020 16:26	10.03.2020 16:47	10.03.2020 17:07	10.03.2020 17:28	10.03.2020 17:48	10.03.2020 18:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00396 0.00396
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 12:45	10.02.2020 16:45	10.02.2020 16:45
	<i>Analyzed:</i>	10.02.2020 17:53	10.02.2020 17:58	10.02.2020 18:04	10.02.2020 18:10	10.03.2020 06:26	10.03.2020 06:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<5.02 5.02	9.25 5.00	<5.04 5.04	34.5 4.99	13.6 5.05	21.9 4.98
TPH By SW8015 Mod	<i>Extracted:</i>	10.02.2020 11:00	10.02.2020 11:00	10.03.2020 09:00	10.03.2020 09:00	10.03.2020 09:00	10.03.2020 09:00
	<i>Analyzed:</i>	10.02.2020 22:32	10.02.2020 22:51	10.03.2020 20:26	10.03.2020 20:49	10.03.2020 21:12	10.03.2020 21:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0
Total TPH		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0

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Analytical Report 674080

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Jackson Pipeline Release

212C-MD-02329

10.08.2020

Collected By: Client



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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.08.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **674080**

Jackson Pipeline Release

Project Address: Lea County, NM

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 674080. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 674080 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH1 0-1'	S	09.30.2020 14:15		674080-001
AH1 1-1.5'	S	09.30.2020 14:18		674080-002
AH1 2-2.5'	S	09.30.2020 14:21		674080-003
AH1 3-3.5'	S	09.30.2020 14:25		674080-004
AH1 4-4.5'	S	09.30.2020 14:30		674080-005
AH2 0-1'	S	09.30.2020 12:30		674080-006
AH2 1-1.5'	S	09.30.2020 12:32		674080-007
AH2 2-2.5'	S	09.30.2020 12:35		674080-008
AH2 3-3.5'	S	09.30.2020 12:38		674080-009
AH2 4-4.5'	S	09.30.2020 12:40		674080-010
AH3 0-1'	S	09.30.2020 12:50		674080-011
AH3 1-1.5'	S	09.30.2020 12:52		674080-012
AH3 2-2.5'	S	09.30.2020 12:55		674080-013
AH3 3-3.5'	S	09.30.2020 12:58		674080-014
AH3 4-4.5'	S	09.30.2020 13:02		674080-015
AH4 0-1'	S	09.30.2020 13:10		674080-016
AH4 1-1.5'	S	09.30.2020 13:12		674080-017
AH4 2-2.5'	S	09.30.2020 13:15		674080-018
AH4 3-3.5'	S	09.30.2020 13:18		674080-019
AH4 4-4.5'	S	09.30.2020 13:21		674080-020
AH5 0-1'	S	09.30.2020 13:30		674080-021
AH5 1-1.5'	S	09.30.2020 13:35		674080-022
AH5 2-2.5'	S	09.30.2020 13:38		674080-023
AH5 3-3.5'	S	09.30.2020 13:42		674080-024
AH5 4-4.5'	S	09.30.2020 13:46		674080-025
AH6 0-1'	S	09.30.2020 13:50		674080-026
AH6 1-1.5'	S	09.30.2020 13:56		674080-027
AH6 2-2.5'	S	09.30.2020 14:00		674080-028
AH6 3-3.5'	S	09.30.2020 14:05		674080-029
AH6 4-4.5'	S	09.30.2020 14:08		674080-030
Horizontal 1 (0-1)	S	09.30.2020 00:00		674080-031
Horizontal 2 (0-1)	S	09.30.2020 00:00		674080-032
Horizontal 3 (0-1)	S	09.30.2020 00:00		674080-033
Horizontal 4 (0-1)	S	09.30.2020 00:00		674080-034
Horizontal 5 (0-1)	S	09.30.2020 00:00		674080-035
Horizontal 6 (0-1)	S	09.30.2020 00:00		674080-036

**CASE NARRATIVE****Client Name: Tetra Tech- Midland****Project Name: Jackson Pipeline Release**Project ID: 212C-MD-02329
Work Order Number(s): 674080Report Date: 10.08.2020
Date Received: 10.01.2020**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3138788 BTEX by EPA 8021B

Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected.

Samples affected are: 674080-002.

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 674080-011,674080-026,674080-002,674080-001.

Batch: LBA-3138806 Inorganic Anions by EPA 300/300.1

Lab Sample ID 674080-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 674080-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014.

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

Batch: LBA-3139116 BTEX by EPA 8021B

Lab Sample ID 674080-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Benzene, Ethylbenzene, Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 674080-004, -005, -012, -027.

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



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 0-1'**
Lab Sample Id: 674080-001

Matrix: Soil
Date Collected: 09.30.2020 14:15

Date Received: 10.01.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3138806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.2	4.95	mg/kg	10.03.2020 02:34		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138817

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1810	250	mg/kg	10.03.2020 08:14		5
Diesel Range Organics (DRO)	C10C28DRO	8690	250	mg/kg	10.03.2020 08:14		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	769	250	mg/kg	10.03.2020 08:14		5
Total TPH	PHC635	11300	250	mg/kg	10.03.2020 08:14		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	124	%	70-130	10.03.2020 08:14		
o-Terphenyl	84-15-1	105	%	70-130	10.03.2020 08:14		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 0-1'**
Lab Sample Id: 674080-001

Matrix: Soil
Date Collected: 09.30.2020 14:15

Date Received: 10.01.2020 14:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:
Basis: Wet Weight

Seq Number: 3138788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	1.72	0.0199	mg/kg	10.03.2020 14:20		10
Toluene	108-88-3	1.50	0.0199	mg/kg	10.03.2020 14:20		10
Ethylbenzene	100-41-4	2.41	0.0199	mg/kg	10.03.2020 14:20		10
m,p-Xylenes	179601-23-1	23.5	0.199	mg/kg	10.04.2020 09:13	D	50
o-Xylene	95-47-6	8.45	0.0994	mg/kg	10.04.2020 09:13	D	50
Total Xylenes	1330-20-7	32.0	0.0994	mg/kg	10.04.2020 09:13		50
Total BTEX		37.6	0.0199	mg/kg	10.04.2020 09:13		50
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	174	%	70-130	10.03.2020 14:20	**	
1,4-Difluorobenzene	540-36-3	113	%	70-130	10.03.2020 14:20		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-002

Date Collected: 09.30.2020 14:18

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	94.9	4.98	mg/kg	10.03.2020 02:39		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:

Seq Number: 3138817

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	784	49.9	mg/kg	10.02.2020 20:16		1
Diesel Range Organics (DRO)	C10C28DRO	3770	49.9	mg/kg	10.02.2020 20:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	343	49.9	mg/kg	10.02.2020 20:16		1
Total TPH	PHC635	4900	49.9	mg/kg	10.02.2020 20:16		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	109	%	70-130	10.02.2020 20:16		
o-Terphenyl	84-15-1	120	%	70-130	10.02.2020 20:16		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-002

Date Collected: 09.30.2020 14:18

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.621	0.0200	mg/kg	10.03.2020 14:40		10
Toluene	108-88-3	0.844	0.0200	mg/kg	10.03.2020 14:40		10
Ethylbenzene	100-41-4	1.74	0.0200	mg/kg	10.03.2020 14:40		10
m,p-Xylenes	179601-23-1	5.24	0.0400	mg/kg	10.03.2020 14:40		10
o-Xylene	95-47-6	2.64	0.0200	mg/kg	10.03.2020 14:40		10
Total Xylenes	1330-20-7	7.88	0.0200	mg/kg	10.03.2020 14:40		10
Total BTEX		11.1	0.0200	mg/kg	10.03.2020 14:40		10
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	44	%	70-130	10.03.2020 14:40	***	
4-Bromofluorobenzene	460-00-4	743	%	70-130	10.03.2020 14:40	**	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 2-2.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-003

Date Collected: 09.30.2020 14:21

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	437	5.05	mg/kg	10.03.2020 02:44		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:

Seq Number: 3138817

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.02.2020 20:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	305	49.8	mg/kg	10.02.2020 20:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.02.2020 20:35	U	1
Total TPH	PHC635	305	49.8	mg/kg	10.02.2020 20:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	10.02.2020 20:35	
o-Terphenyl	84-15-1	91	%	70-130	10.02.2020 20:35	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 2-2.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-003

Date Collected: 09.30.2020 14:21

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.03.2020 12:04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.03.2020 12:04	U	1
Ethylbenzene	100-41-4	0.00380	0.00200	mg/kg	10.03.2020 12:04		1
m,p-Xylenes	179601-23-1	0.00485	0.00400	mg/kg	10.03.2020 12:04		1
o-Xylene	95-47-6	0.00650	0.00200	mg/kg	10.03.2020 12:04		1
Total Xylenes	1330-20-7	0.0114	0.00200	mg/kg	10.03.2020 12:04		1
Total BTEX		0.0152	0.00200	mg/kg	10.03.2020 12:04		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	10.03.2020 12:04		
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.03.2020 12:04		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 3-3.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-004

Date Collected: 09.30.2020 14:25

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	4.98	mg/kg	10.03.2020 02:50		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 00:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	503	50.0	mg/kg	10.08.2020 00:32		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 00:32	U	1
Total TPH	PHC635	503	50.0	mg/kg	10.08.2020 00:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	10.08.2020 00:32	
o-Terphenyl	84-15-1	118	%	70-130	10.08.2020 00:32	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 3-3.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-004

Date Collected: 09.30.2020 14:25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.07.2020 12:00

% Moisture:

Seq Number: 3139116

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.07.2020 14:23	UX	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.07.2020 14:23	UX	1
Ethylbenzene	100-41-4	0.0202	0.00202	mg/kg	10.07.2020 14:23	X	1
m,p-Xylenes	179601-23-1	0.0692	0.00404	mg/kg	10.07.2020 14:23	X	1
o-Xylene	95-47-6	0.0537	0.00202	mg/kg	10.07.2020 14:23	X	1
Total Xylenes	1330-20-7	0.123	0.00202	mg/kg	10.07.2020 14:23		1
Total BTEX		0.143	0.00202	mg/kg	10.07.2020 14:23		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.07.2020 14:23		
4-Bromofluorobenzene	460-00-4	110	%	70-130	10.07.2020 14:23		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 4-4.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-005

Date Collected: 09.30.2020 14:30

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1830	25.3	mg/kg	10.03.2020 02:55	X	5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	113	49.9	mg/kg	10.08.2020 00:51		1
Diesel Range Organics (DRO)	C10C28DRO	2060	49.9	mg/kg	10.08.2020 00:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	114	49.9	mg/kg	10.08.2020 00:51		1
Total TPH	PHC635	2290	49.9	mg/kg	10.08.2020 00:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	10.08.2020 00:51	
o-Terphenyl	84-15-1	129	%	70-130	10.08.2020 00:51	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH1 4-4.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-005

Date Collected: 09.30.2020 14:30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.07.2020 12:00

% Moisture:

Seq Number: 3139116

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00361	0.00201	mg/kg	10.07.2020 14:43		1
Toluene	108-88-3	0.00342	0.00201	mg/kg	10.07.2020 14:43		1
Ethylbenzene	100-41-4	0.0462	0.00201	mg/kg	10.07.2020 14:43		1
m,p-Xylenes	179601-23-1	0.413	0.00402	mg/kg	10.07.2020 14:43		1
o-Xylene	95-47-6	0.174	0.00201	mg/kg	10.07.2020 14:43		1
Total Xylenes	1330-20-7	0.587	0.00201	mg/kg	10.07.2020 14:43		1
Total BTEX		0.640	0.00201	mg/kg	10.07.2020 14:43		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.07.2020 14:43		
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.07.2020 14:43		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH2 0-1'**
Lab Sample Id: 674080-006

Matrix: Soil
Date Collected: 09.30.2020 12:30

Date Received: 10.01.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3138806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.9	5.03	mg/kg	10.03.2020 03:11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138817

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.02.2020 20:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	187	50.0	mg/kg	10.02.2020 20:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.02.2020 20:55	U	1
Total TPH	PHC635	187	50.0	mg/kg	10.02.2020 20:55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	10.02.2020 20:55	
o-Terphenyl	84-15-1	88	%	70-130	10.02.2020 20:55	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH2 0-1'**
Lab Sample Id: 674080-006

Matrix: Soil
Date Collected: 09.30.2020 12:30

Date Received: 10.01.2020 14:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:
Basis: Wet Weight

Seq Number: 3138788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.03.2020 12:25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.03.2020 12:25	U	1
Ethylbenzene	100-41-4	0.00393	0.00202	mg/kg	10.03.2020 12:25		1
m,p-Xylenes	179601-23-1	0.00712	0.00403	mg/kg	10.03.2020 12:25		1
o-Xylene	95-47-6	0.00903	0.00202	mg/kg	10.03.2020 12:25		1
Total Xylenes	1330-20-7	0.0162	0.00202	mg/kg	10.03.2020 12:25		1
Total BTEX		0.0201	0.00202	mg/kg	10.03.2020 12:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.03.2020 12:25	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.03.2020 12:25	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH2 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-007

Date Collected: 09.30.2020 12:32

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.0	4.99	mg/kg	10.03.2020 03:16		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 01:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.08.2020 01:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 01:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.08.2020 01:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	10.08.2020 01:10	
o-Terphenyl	84-15-1	104	%	70-130	10.08.2020 01:10	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH2 2-2.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-008

Date Collected: 09.30.2020 12:35

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.6	4.96	mg/kg	10.03.2020 03:32		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 01:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.08.2020 01:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 01:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.08.2020 01:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	10.08.2020 01:29	
o-Terphenyl	84-15-1	107	%	70-130	10.08.2020 01:29	

**Certificate of Analytical Results 674080****Tetra Tech- Midland, Midland, TX**

Jackson Pipeline Release

Sample Id: **AH2 3-3.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-009

Date Collected: 09.30.2020 12:38

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.1	5.00	mg/kg	10.03.2020 03:37		1

**Certificate of Analytical Results 674080****Tetra Tech- Midland, Midland, TX**

Jackson Pipeline Release

Sample Id: **AH2 4-4.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-010

Date Collected: 09.30.2020 12:40

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.5	4.95	mg/kg	10.03.2020 03:42		1



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH3 0-1'**
Lab Sample Id: 674080-011

Matrix: Soil
Date Collected: 09.30.2020 12:50

Date Received: 10.01.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:
Basis: Wet Weight

Seq Number: 3138806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.5	5.04	mg/kg	10.03.2020 03:47		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138817

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	188	50.0	mg/kg	10.02.2020 21:14		1
Diesel Range Organics (DRO)	C10C28DRO	2180	50.0	mg/kg	10.02.2020 21:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	230	50.0	mg/kg	10.02.2020 21:14		1
Total TPH	PHC635	2600	50.0	mg/kg	10.02.2020 21:14		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	96	%	70-130	10.02.2020 21:14		
o-Terphenyl	84-15-1	124	%	70-130	10.02.2020 21:14		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH3 0-1'**
Lab Sample Id: 674080-011

Matrix: Soil
Date Collected: 09.30.2020 12:50

Date Received: 10.01.2020 14:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:
Basis: Wet Weight

Seq Number: 3138788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00210	0.00199	mg/kg	10.03.2020 12:46		1
Toluene	108-88-3	0.00325	0.00199	mg/kg	10.03.2020 12:46		1
Ethylbenzene	100-41-4	0.119	0.00199	mg/kg	10.03.2020 12:46		1
m,p-Xylenes	179601-23-1	0.131	0.00398	mg/kg	10.03.2020 12:46		1
o-Xylene	95-47-6	0.202	0.00199	mg/kg	10.03.2020 12:46		1
Total Xylenes	1330-20-7	0.333	0.00199	mg/kg	10.03.2020 12:46		1
Total BTEX		0.457	0.00199	mg/kg	10.03.2020 12:46		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	144	%	70-130	10.03.2020 12:46	**	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.03.2020 12:46		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH3 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-012

Date Collected: 09.30.2020 12:52

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.9	5.00	mg/kg	10.03.2020 03:53		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.08.2020 01:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	426	49.9	mg/kg	10.08.2020 01:48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.08.2020 01:48	U	1
Total TPH	PHC635	426	49.9	mg/kg	10.08.2020 01:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	10.08.2020 01:48	
o-Terphenyl	84-15-1	119	%	70-130	10.08.2020 01:48	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH3 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-012

Date Collected: 09.30.2020 12:52

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.07.2020 12:00

% Moisture:

Seq Number: 3139116

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.07.2020 15:04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.07.2020 15:04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.07.2020 15:04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.07.2020 15:04	U	1
o-Xylene	95-47-6	0.00211	0.00200	mg/kg	10.07.2020 15:04		1
Total Xylenes	1330-20-7	0.00211	0.00200	mg/kg	10.07.2020 15:04		1
Total BTEX		0.00211	0.00200	mg/kg	10.07.2020 15:04		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	10.07.2020 15:04		
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.07.2020 15:04		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH3 2-2.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-013

Date Collected: 09.30.2020 12:55

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.9	5.00	mg/kg	10.03.2020 03:58		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.08.2020 02:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	136	49.8	mg/kg	10.08.2020 02:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.08.2020 02:07	U	1
Total TPH	PHC635	136	49.8	mg/kg	10.08.2020 02:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	10.08.2020 02:07	
o-Terphenyl	84-15-1	111	%	70-130	10.08.2020 02:07	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH3 3-3.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-014

Date Collected: 09.30.2020 12:58

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:15

% Moisture:

Seq Number: 3138806

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.2	5.00	mg/kg	10.03.2020 04:03		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.08.2020 02:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	55.2	49.9	mg/kg	10.08.2020 02:26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.08.2020 02:26	U	1
Total TPH	PHC635	55.2	49.9	mg/kg	10.08.2020 02:26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	10.08.2020 02:26	
o-Terphenyl	84-15-1	103	%	70-130	10.08.2020 02:26	



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Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH3 4-4.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-015

Date Collected: 09.30.2020 13:02

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	124	5.02	mg/kg	10.02.2020 15:37		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 02:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	79.1	50.0	mg/kg	10.08.2020 02:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 02:46	U	1
Total TPH	PHC635	79.1	50.0	mg/kg	10.08.2020 02:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	10.08.2020 02:46	
o-Terphenyl	84-15-1	106	%	70-130	10.08.2020 02:46	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH4 0-1'**
Lab Sample Id: 674080-016

Matrix: Soil
Date Collected: 09.30.2020 13:10

Date Received: 10.01.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:
Basis: Wet Weight

Seq Number: 3138807

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1150	4.96	mg/kg	10.02.2020 15:54		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138817

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.02.2020 21:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	1430	49.9	mg/kg	10.02.2020 21:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	195	49.9	mg/kg	10.02.2020 21:33		1
Total TPH	PHC635	1630	49.9	mg/kg	10.02.2020 21:33		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	76	%	70-130	10.02.2020 21:33		
o-Terphenyl	84-15-1	95	%	70-130	10.02.2020 21:33		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH4 0-1'**
Lab Sample Id: 674080-016

Matrix: Soil
Date Collected: 09.30.2020 13:10

Date Received: 10.01.2020 14:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:
Basis: Wet Weight

Seq Number: 3138788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.03.2020 13:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.03.2020 13:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.03.2020 13:39	U	1
m,p-Xylenes	179601-23-1	0.00496	0.00399	mg/kg	10.03.2020 13:39		1
o-Xylene	95-47-6	0.00413	0.00200	mg/kg	10.03.2020 13:39		1
Total Xylenes	1330-20-7	0.00909	0.00200	mg/kg	10.03.2020 13:39		1
Total BTEX		0.00909	0.00200	mg/kg	10.03.2020 13:39		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.03.2020 13:39		
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.03.2020 13:39		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH4 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-017

Date Collected: 09.30.2020 13:12

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	385	4.99	mg/kg	10.02.2020 16:00		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.08.2020 03:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	423	49.9	mg/kg	10.08.2020 03:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.08.2020 03:05	U	1
Total TPH	PHC635	423	49.9	mg/kg	10.08.2020 03:05		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-130	10.08.2020 03:05		
o-Terphenyl	84-15-1	105	%	70-130	10.08.2020 03:05		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH4 2-2.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-018

Date Collected: 09.30.2020 13:15

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	105	5.00	mg/kg	10.02.2020 16:05		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.08.2020 03:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	111	49.8	mg/kg	10.08.2020 03:43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.08.2020 03:43	U	1
Total TPH	PHC635	111	49.8	mg/kg	10.08.2020 03:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	10.08.2020 03:43	
o-Terphenyl	84-15-1	103	%	70-130	10.08.2020 03:43	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH4 3-3.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-019

Date Collected: 09.30.2020 13:18

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.3	5.04	mg/kg	10.02.2020 16:11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 04:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	83.7	50.0	mg/kg	10.08.2020 04:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 04:02	U	1
Total TPH	PHC635	83.7	50.0	mg/kg	10.08.2020 04:02		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-130	10.08.2020 04:02		
o-Terphenyl	84-15-1	97	%	70-130	10.08.2020 04:02		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH4 4-4.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-020

Date Collected: 09.30.2020 13:21

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	92.6	4.99	mg/kg	10.02.2020 16:28		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.08.2020 04:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.08.2020 04:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.08.2020 04:22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.08.2020 04:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	10.08.2020 04:22	
o-Terphenyl	84-15-1	99	%	70-130	10.08.2020 04:22	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH5 0-1'**
Lab Sample Id: 674080-021

Matrix: Soil
Date Collected: 09.30.2020 13:30

Date Received: 10.01.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:
Basis: Wet Weight

Seq Number: 3138807

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.0	4.96	mg/kg	10.02.2020 16:34		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138817

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.02.2020 21:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	213	49.9	mg/kg	10.02.2020 21:53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.02.2020 21:53	U	1
Total TPH	PHC635	213	49.9	mg/kg	10.02.2020 21:53		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	72	%	70-130	10.02.2020 21:53		
o-Terphenyl	84-15-1	85	%	70-130	10.02.2020 21:53		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH5 0-1'**
Lab Sample Id: 674080-021

Matrix: Soil
Date Collected: 09.30.2020 13:30

Date Received: 10.01.2020 14:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:
Basis: Wet Weight

Seq Number: 3138788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.03.2020 13:59	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.03.2020 13:59	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.03.2020 13:59	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.03.2020 13:59	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.03.2020 13:59	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.03.2020 13:59	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.03.2020 13:59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.03.2020 13:59		
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.03.2020 13:59		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH5 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-022

Date Collected: 09.30.2020 13:35

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.2	5.00	mg/kg	10.02.2020 16:39		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 04:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	143	50.0	mg/kg	10.08.2020 04:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 04:41	U	1
Total TPH	PHC635	143	50.0	mg/kg	10.08.2020 04:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	10.08.2020 04:41	
o-Terphenyl	84-15-1	108	%	70-130	10.08.2020 04:41	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH5 2-2.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-023

Date Collected: 09.30.2020 13:38

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.5	5.02	mg/kg	10.02.2020 16:45		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 05:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	85.7	50.0	mg/kg	10.08.2020 05:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 05:00	U	1
Total TPH	PHC635	85.7	50.0	mg/kg	10.08.2020 05:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	10.08.2020 05:00	
o-Terphenyl	84-15-1	104	%	70-130	10.08.2020 05:00	

**Certificate of Analytical Results 674080****Tetra Tech- Midland, Midland, TX**

Jackson Pipeline Release

Sample Id: **AH5 3-3.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-024

Date Collected: 09.30.2020 13:42

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	10.02.2020 16:51	U	1

**Certificate of Analytical Results 674080****Tetra Tech- Midland, Midland, TX****Jackson Pipeline Release**Sample Id: **AH5 4-4.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-025

Date Collected: 09.30.2020 13:46

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.0	5.00	mg/kg	10.02.2020 16:56		1



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH6 0-1'**
Lab Sample Id: 674080-026

Matrix: Soil
Date Collected: 09.30.2020 13:50

Date Received: 10.01.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:
Basis: Wet Weight

Seq Number: 3138807

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2560	25.0	mg/kg	10.02.2020 17:13		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.02.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138817

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	239	50.0	mg/kg	10.02.2020 22:12		1
Diesel Range Organics (DRO)	C10C28DRO	3170	50.0	mg/kg	10.02.2020 22:12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	331	50.0	mg/kg	10.02.2020 22:12		1
Total TPH	PHC635	3740	50.0	mg/kg	10.02.2020 22:12		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	86	%	70-130	10.02.2020 22:12		
o-Terphenyl	84-15-1	116	%	70-130	10.02.2020 22:12		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH6 0-1'**
Lab Sample Id: 674080-026

Matrix: Soil
Date Collected: 09.30.2020 13:50

Date Received: 10.01.2020 14:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:
Basis: Wet Weight

Seq Number: 3138788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0979	0.0198	mg/kg	10.03.2020 15:01		10
Toluene	108-88-3	0.131	0.0198	mg/kg	10.03.2020 15:01		10
Ethylbenzene	100-41-4	2.00	0.0198	mg/kg	10.03.2020 15:01		10
m,p-Xylenes	179601-23-1	6.74	0.0397	mg/kg	10.03.2020 15:01		10
o-Xylene	95-47-6	3.47	0.0198	mg/kg	10.03.2020 15:01		10
Total Xylenes	1330-20-7	10.2	0.0198	mg/kg	10.03.2020 15:01		10
Total BTEX		12.4	0.0198	mg/kg	10.03.2020 15:01		10
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	170	%	70-130	10.03.2020 15:01	**	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.03.2020 15:01		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH6 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-027

Date Collected: 09.30.2020 13:56

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1470	5.04	mg/kg	10.02.2020 17:19		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	114	50.0	mg/kg	10.08.2020 05:19		1
Diesel Range Organics (DRO)	C10C28DRO	1730	50.0	mg/kg	10.08.2020 05:19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	88.0	50.0	mg/kg	10.08.2020 05:19		1
Total TPH	PHC635	1930	50.0	mg/kg	10.08.2020 05:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	10.08.2020 05:19	
o-Terphenyl	84-15-1	118	%	70-130	10.08.2020 05:19	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH6 1-1.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-027

Date Collected: 09.30.2020 13:56

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.07.2020 12:00

% Moisture:

Seq Number: 3139116

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.07.2020 15:24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.07.2020 15:24	U	1
Ethylbenzene	100-41-4	0.00481	0.00202	mg/kg	10.07.2020 15:24		1
m,p-Xylenes	179601-23-1	0.0467	0.00404	mg/kg	10.07.2020 15:24		1
o-Xylene	95-47-6	0.0195	0.00202	mg/kg	10.07.2020 15:24		1
Total Xylenes	1330-20-7	0.0662	0.00202	mg/kg	10.07.2020 15:24		1
Total BTEX		0.0710	0.00202	mg/kg	10.07.2020 15:24		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.07.2020 15:24		
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.07.2020 15:24		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH6 2-2.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-028

Date Collected: 09.30.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	113	4.99	mg/kg	10.02.2020 17:36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.08.2020 05:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	56.3	49.9	mg/kg	10.08.2020 05:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.08.2020 05:38	U	1
Total TPH	PHC635	56.3	49.9	mg/kg	10.08.2020 05:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	10.08.2020 05:38	
o-Terphenyl	84-15-1	97	%	70-130	10.08.2020 05:38	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH6 3-3.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-029

Date Collected: 09.30.2020 14:05

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.3	4.97	mg/kg	10.02.2020 17:41		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.08.2020 05:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.08.2020 05:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.08.2020 05:57	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.08.2020 05:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	89	%	70-130	10.08.2020 05:57		
o-Terphenyl	84-15-1	93	%	70-130	10.08.2020 05:57		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **AH6 4-4.5'**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-030

Date Collected: 09.30.2020 14:08

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.02.2020 12:45

% Moisture:

Seq Number: 3138807

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.3	4.95	mg/kg	10.02.2020 17:47		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 10.07.2020 17:00

% Moisture:

Seq Number: 3139157

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.08.2020 06:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.08.2020 06:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.08.2020 06:16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.08.2020 06:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	10.08.2020 06:16	
o-Terphenyl	84-15-1	97	%	70-130	10.08.2020 06:16	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 1 (0-1)** Matrix: Soil Date Received: 10.01.2020 14:00
 Lab Sample Id: 674080-031 Date Collected: 09.30.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.02.2020 12:45 % Moisture:
 Seq Number: 3138807 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	10.02.2020 17:53	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.02.2020 11:00 % Moisture:
 Seq Number: 3138817 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.02.2020 22:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.02.2020 22:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.02.2020 22:32	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.02.2020 22:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	10.02.2020 22:32	
o-Terphenyl	84-15-1	80	%	70-130	10.02.2020 22:32	



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 1 (0-1)**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-031

Date Collected: 09.30.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.03.2020 16:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.03.2020 16:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.03.2020 16:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.03.2020 16:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.03.2020 16:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.03.2020 16:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.03.2020 16:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.03.2020 16:26		
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.03.2020 16:26		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 2 (0-1)** Matrix: Soil Date Received: 10.01.2020 14:00
 Lab Sample Id: 674080-032 Date Collected: 09.30.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.02.2020 12:45 % Moisture:
 Seq Number: 3138807 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.25	5.00	mg/kg	10.02.2020 17:58		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.02.2020 11:00 % Moisture:
 Seq Number: 3138817 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.02.2020 22:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.02.2020 22:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.02.2020 22:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.02.2020 22:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	70	%	70-130	10.02.2020 22:51		
o-Terphenyl	84-15-1	75	%	70-130	10.02.2020 22:51		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 2 (0-1)**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-032

Date Collected: 09.30.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.03.2020 16:47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.03.2020 16:47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.03.2020 16:47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.03.2020 16:47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.03.2020 16:47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.03.2020 16:47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.03.2020 16:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.03.2020 16:47		
4-Bromofluorobenzene	460-00-4	104	%	70-130	10.03.2020 16:47		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 3 (0-1)** Matrix: Soil Date Received: 10.01.2020 14:00
 Lab Sample Id: 674080-033 Date Collected: 09.30.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.02.2020 12:45 % Moisture:
 Seq Number: 3138807 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	10.02.2020 18:04	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.03.2020 09:00 % Moisture:
 Seq Number: 3138823 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.03.2020 20:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.03.2020 20:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.03.2020 20:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.03.2020 20:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-130	10.03.2020 20:26		
o-Terphenyl	84-15-1	73	%	70-130	10.03.2020 20:26		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 3 (0-1)**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-033

Date Collected: 09.30.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.03.2020 17:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.03.2020 17:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.03.2020 17:07	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.03.2020 17:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.03.2020 17:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.03.2020 17:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.03.2020 17:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.03.2020 17:07		
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.03.2020 17:07		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 4 (0-1)** Matrix: Soil Date Received: 10.01.2020 14:00
 Lab Sample Id: 674080-034 Date Collected: 09.30.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.02.2020 12:45 % Moisture:
 Seq Number: 3138807 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.5	4.99	mg/kg	10.02.2020 18:10		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.03.2020 09:00 % Moisture:
 Seq Number: 3138823 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.03.2020 20:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.03.2020 20:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.03.2020 20:49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.03.2020 20:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	79	%	70-130	10.03.2020 20:49		
o-Terphenyl	84-15-1	73	%	70-130	10.03.2020 20:49		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 4 (0-1)**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-034

Date Collected: 09.30.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.03.2020 17:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.03.2020 17:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.03.2020 17:28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.03.2020 17:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.03.2020 17:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.03.2020 17:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.03.2020 17:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.03.2020 17:28		
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.03.2020 17:28		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 5 (0-1)** Matrix: Soil Date Received: 10.01.2020 14:00
 Lab Sample Id: 674080-035 Date Collected: 09.30.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.02.2020 16:45 % Moisture:
 Seq Number: 3138812 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.6	5.05	mg/kg	10.03.2020 06:26		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.03.2020 09:00 % Moisture:
 Seq Number: 3138823 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.03.2020 21:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.03.2020 21:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.03.2020 21:12	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.03.2020 21:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-130	10.03.2020 21:12		
o-Terphenyl	84-15-1	73	%	70-130	10.03.2020 21:12		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 5 (0-1)**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-035

Date Collected: 09.30.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.03.2020 17:48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.03.2020 17:48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.03.2020 17:48	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.03.2020 17:48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.03.2020 17:48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.03.2020 17:48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.03.2020 17:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.03.2020 17:48		
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.03.2020 17:48		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 6 (0-1)** Matrix: Soil Date Received: 10.01.2020 14:00
 Lab Sample Id: 674080-036 Date Collected: 09.30.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.02.2020 16:45 % Moisture:
 Seq Number: 3138812 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.9	4.98	mg/kg	10.03.2020 06:33		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.03.2020 09:00 % Moisture:
 Seq Number: 3138823 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.03.2020 21:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.03.2020 21:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.03.2020 21:34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.03.2020 21:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	80	%	70-130	10.03.2020 21:34		
o-Terphenyl	84-15-1	72	%	70-130	10.03.2020 21:34		



Certificate of Analytical Results 674080

Tetra Tech- Midland, Midland, TX

Jackson Pipeline Release

Sample Id: **Horizontal 6 (0-1)**

Matrix: Soil

Date Received: 10.01.2020 14:00

Lab Sample Id: 674080-036

Date Collected: 09.30.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.03.2020 08:30

% Moisture:

Seq Number: 3138788

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.03.2020 18:09	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.03.2020 18:09	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.03.2020 18:09	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.03.2020 18:09	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.03.2020 18:09	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.03.2020 18:09	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.03.2020 18:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.03.2020 18:09		
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.03.2020 18:09		

Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



Tetra Tech- Midland Jackson Pipeline Release

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138806

Matrix: Solid

Prep Method: E300P

Date Prep: 10.02.2020

MB Sample Id: 7712519-1-BLK

LCS Sample Id: 7712519-1-BKS

LCSD Sample Id: 7712519-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	276	110	272	109	90-110	1	20	mg/kg	10.03.2020 01:31	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138807

Matrix: Solid

Prep Method: E300P

Date Prep: 10.02.2020

MB Sample Id: 7712520-1-BLK

LCS Sample Id: 7712520-1-BKS

LCSD Sample Id: 7712520-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	268	107	264	106	90-110	2	20	mg/kg	10.02.2020 15:26	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138812

Matrix: Solid

Prep Method: E300P

Date Prep: 10.02.2020

MB Sample Id: 7712578-1-BLK

LCS Sample Id: 7712578-1-BKS

LCSD Sample Id: 7712578-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	271	108	269	108	90-110	1	20	mg/kg	10.03.2020 04:27	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138806

Matrix: Soil

Prep Method: E300P

Date Prep: 10.02.2020

Parent Sample Id: 674034-015

MS Sample Id: 674034-015 S

MSD Sample Id: 674034-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	426	250	688	105	689	105	90-110	0	20	mg/kg	10.03.2020 01:46	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138806

Matrix: Soil

Prep Method: E300P

Date Prep: 10.02.2020

Parent Sample Id: 674080-005

MS Sample Id: 674080-005 S

MSD Sample Id: 674080-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1830	1260	3310	117	3250	113	90-110	2	20	mg/kg	10.03.2020 03:00	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138807

Matrix: Soil

Prep Method: E300P

Date Prep: 10.02.2020

Parent Sample Id: 674080-015

MS Sample Id: 674080-015 S

MSD Sample Id: 674080-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	124	251	385	104	382	103	90-110	1	20	mg/kg	10.02.2020 15:43	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Tetra Tech- Midland

Jackson Pipeline Release

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138807

Matrix: Soil

Prep Method: E300P

Date Prep: 10.02.2020

Parent Sample Id: 674080-025

MS Sample Id: 674080-025 S

MSD Sample Id: 674080-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	14.0	250	279	106	276	105	90-110	1	20	mg/kg	10.02.2020 17:02	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138812

Matrix: Soil

Prep Method: E300P

Date Prep: 10.02.2020

Parent Sample Id: 674215-002

MS Sample Id: 674215-002 S

MSD Sample Id: 674215-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2590	1260	3850	100	3900	104	90-110	1	20	mg/kg	10.03.2020 06:14	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3138812

Matrix: Soil

Prep Method: E300P

Date Prep: 10.02.2020

Parent Sample Id: 674216-001

MS Sample Id: 674216-001 S

MSD Sample Id: 674216-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	854	252	1070	86	1080	90	90-110	1	20	mg/kg	10.03.2020 04:46	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3138817

Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.02.2020

MB Sample Id: 7712595-1-BLK

LCS Sample Id: 7712595-1-BKS

LCSD Sample Id: 7712595-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1040	104	936	94	70-130	11	20	mg/kg	10.02.2020 14:47	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	956	96	70-130	11	20	mg/kg	10.02.2020 14:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		99		92		70-130	%	10.02.2020 14:47
o-Terphenyl	98		104		93		70-130	%	10.02.2020 14:47

Analytical Method: TPH By SW8015 Mod

Seq Number: 3138823

Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.03.2020

MB Sample Id: 7712607-1-BLK

LCS Sample Id: 7712607-1-BKS

LCSD Sample Id: 7712607-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	963	96	943	94	70-130	2	20	mg/kg	10.03.2020 13:12	
Diesel Range Organics (DRO)	<50.0	1000	930	93	911	91	70-130	2	20	mg/kg	10.03.2020 13:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		93		94		70-130	%	10.03.2020 13:12
o-Terphenyl	89		86		90		70-130	%	10.03.2020 13:12

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Tetra Tech- Midland

Jackson Pipeline Release

Analytical Method: TPH By SW8015 Mod

Seq Number: 3139157

MB Sample Id: 7712845-1-BLK

Matrix: Solid

LCS Sample Id: 7712845-1-BKS

Prep Method: SW8015P

Date Prep: 10.07.2020

LCSD Sample Id: 7712845-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	956	96	1160	116	70-130	19	20	mg/kg	10.07.2020 22:55	
Diesel Range Organics (DRO)	<50.0	1000	979	98	1150	115	70-130	16	20	mg/kg	10.07.2020 22:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		108		127		70-130	%	10.07.2020 22:55
o-Terphenyl	106		114		129		70-130	%	10.07.2020 22:55

Analytical Method: TPH By SW8015 Mod

Seq Number: 3138817

Matrix: Solid

MB Sample Id: 7712595-1-BLK

Prep Method: SW8015P

Date Prep: 10.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.02.2020 14:27	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3138823

Matrix: Solid

MB Sample Id: 7712607-1-BLK

Prep Method: SW8015P

Date Prep: 10.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.03.2020 12:49	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3139157

Matrix: Solid

MB Sample Id: 7712845-1-BLK

Prep Method: SW8015P

Date Prep: 10.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.07.2020 22:36	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3138817

Matrix: Soil

Parent Sample Id: 674139-001

MS Sample Id: 674139-001 S

Prep Method: SW8015P

Date Prep: 10.02.2020

MSD Sample Id: 674139-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1010	101	968	97	70-130	4	20	mg/kg	10.02.2020 15:44	
Diesel Range Organics (DRO)	<49.9	997	1040	104	1010	101	70-130	3	20	mg/kg	10.02.2020 15:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		85		70-130	%	10.02.2020 15:44
o-Terphenyl	86		84		70-130	%	10.02.2020 15:44

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Tetra Tech- Midland

Jackson Pipeline Release

Analytical Method: TPH By SW8015 Mod

Seq Number: 3138823

Parent Sample Id: 674015-021

Matrix: Soil

MS Sample Id: 674015-021 S

Prep Method: SW8015P

Date Prep: 10.03.2020

MSD Sample Id: 674015-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	885	89	857	86	70-130	3	20	mg/kg	10.03.2020 14:20	
Diesel Range Organics (DRO)	<49.9	998	894	90	909	91	70-130	2	20	mg/kg	10.03.2020 14:20	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		83		70-130	%	10.03.2020 14:20
o-Terphenyl	75		76		70-130	%	10.03.2020 14:20

Analytical Method: TPH By SW8015 Mod

Seq Number: 3139157

Parent Sample Id: 674250-001

Matrix: Soil

MS Sample Id: 674250-001 S

Prep Method: SW8015P

Date Prep: 10.07.2020

MSD Sample Id: 674250-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	930	93	1140	114	70-130	20	20	mg/kg	10.07.2020 23:53	
Diesel Range Organics (DRO)	163	997	1090	93	1350	119	70-130	21	20	mg/kg	10.07.2020 23:53	F

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		130		70-130	%	10.07.2020 23:53
o-Terphenyl	127		99		70-130	%	10.07.2020 23:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138788

MB Sample Id: 7712590-1-BLK

Matrix: Solid

LCS Sample Id: 7712590-1-BKS

Prep Method: SW5035A

Date Prep: 10.03.2020

LCSD Sample Id: 7712590-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.106	106	0.102	102	70-130	4	35	mg/kg	10.03.2020 09:20	
Toluene	<0.00200	0.100	0.0988	99	0.0945	95	70-130	4	35	mg/kg	10.03.2020 09:20	
Ethylbenzene	<0.00200	0.100	0.105	105	0.102	102	70-130	3	35	mg/kg	10.03.2020 09:20	
m,p-Xylenes	<0.00400	0.200	0.210	105	0.205	103	70-130	2	35	mg/kg	10.03.2020 09:20	
o-Xylene	<0.00200	0.100	0.106	106	0.102	102	70-130	4	35	mg/kg	10.03.2020 09:20	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		98		98		70-130	%	10.03.2020 09:20
4-Bromofluorobenzene	106		100		98		70-130	%	10.03.2020 09:20

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Tetra Tech- Midland Jackson Pipeline Release

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139116

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.07.2020

MB Sample Id: 7712835-1-BLK

LCS Sample Id: 7712835-1-BKS

LCSD Sample Id: 7712835-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0955	96	0.0943	94	70-130	1	35	mg/kg	10.07.2020 12:00	
Toluene	<0.00200	0.100	0.0979	98	0.0953	95	70-130	3	35	mg/kg	10.07.2020 12:00	
Ethylbenzene	<0.00200	0.100	0.0957	96	0.0939	94	70-130	2	35	mg/kg	10.07.2020 12:00	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.188	94	70-130	2	35	mg/kg	10.07.2020 12:00	
o-Xylene	<0.00200	0.100	0.0961	96	0.0943	94	70-130	2	35	mg/kg	10.07.2020 12:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		98		70-130	%	10.07.2020 12:00
4-Bromofluorobenzene	108		98		97		70-130	%	10.07.2020 12:00

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138788

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.03.2020

Parent Sample Id: 674034-019

MS Sample Id: 674034-019 S

MSD Sample Id: 674034-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.00891	9	0.0913	90	70-130	164	35	mg/kg	10.03.2020 10:01	XF
Toluene	<0.00200	0.100	0.00759	8	0.0834	83	70-130	167	35	mg/kg	10.03.2020 10:01	XF
Ethylbenzene	<0.00200	0.100	0.00672	7	0.0846	84	70-130	171	35	mg/kg	10.03.2020 10:01	XF
m,p-Xylenes	<0.00401	0.200	0.0167	8	0.174	86	70-130	165	35	mg/kg	10.03.2020 10:01	XF
o-Xylene	<0.00200	0.100	0.0110	11	0.0878	87	70-130	155	35	mg/kg	10.03.2020 10:01	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		70-130	%	10.03.2020 10:01
4-Bromofluorobenzene	114		101		70-130	%	10.03.2020 10:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139116

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.07.2020

Parent Sample Id: 674080-004

MS Sample Id: 674080-004 S

MSD Sample Id: 674080-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0586	58	0.0650	65	70-130	10	35	mg/kg	10.07.2020 12:41	X
Toluene	<0.00201	0.101	0.0599	59	0.0658	66	70-130	9	35	mg/kg	10.07.2020 12:41	X
Ethylbenzene	0.0202	0.101	0.0738	53	0.0864	66	70-130	16	35	mg/kg	10.07.2020 12:41	X
m,p-Xylenes	0.0692	0.201	0.175	53	0.210	70	70-130	18	35	mg/kg	10.07.2020 12:41	X
o-Xylene	0.0537	0.101	0.111	57	0.134	80	70-130	19	35	mg/kg	10.07.2020 12:41	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		94		70-130	%	10.07.2020 12:41
4-Bromofluorobenzene	115		116		70-130	%	10.07.2020 12:41

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Analysis Request of Custody Record



Tetra Tech, Inc.

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

674080

Page 1 of 1

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Jackson Pipeline Release			
Project Location: Lea County, New Mexico		Project #: 212C-MD-02329	
Invoice to: Todd Wells			
Receiving Laboratory: Xenco Labs		Sampler Signature: Scant Y <i>[Signature]</i>	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX				PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE							
									YEAR: 2020						
AH3 0-1'		9/30/2020	12:50	X				X				1	N		
AH3 1-1.5'		9/30/2020	12:52	X				X				1	N		
AH3 2-2.5'		9/30/2020	12:55	X				X				1	N		
AH3 3-3.5'		9/30/2020	12:58	X				X				1	N		
AH3 4-4.5'		9/30/2020	13:02	X				X				1	N		
AH4 0-1'		9/30/2020	13:10	X				X				1	N		
AH4 1-1.5'		9/30/2020	13:12	X				X				1	N		
AH4 2-2.5'		9/30/2020	13:15	X				X				1	N		
AH4 3-3.5'		9/30/2020	13:18	X				X				1	N		
AH4 4-4.5'		9/30/2020	13:21	X				X				1	N		

Received by: <i>[Signature]</i>	Date: 10/1/2020	Time: 14:00
Received by: <i>[Signature]</i>	Date: 10/1/2020	Time: 14:00
Received by:	Date:	Time:

LAB USE ONLY	REMARKS
Standard	
RUSH: Same Day 24 hr 48 hr 72 hr	
Special Report Limits or TRRP Report	

ORIGINAL COPY

(Circle or Specify Method No.)

 (Circle) HAND DELIVERED ☐ FEDEX ☐ UPS ☐ Tracking #:

 Sample Temperature
 -8.7-8.2



Tetra Tech, Inc.

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

674080

Client Name:

EOG

Site Manager:

Mike Carmona

Project Name:

Jackson Pipeline Release

Project Location:

Lea County, New Mexico

Project #:

212C-MD-02329

Invoice to:

Todd Wells

Receiving Laboratory:

Xenco Labs

Sampler Signature:

Scant Y

Comments:

SAMPLE IDENTIFICATION

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		DATE	TIME		WATER	SOIL	HCL	HNO ₃			ICE	BTEX 8021B	TPH TX1005 (Ext to C3)	TPH 8015M (GRO - DI	PAH 8270C	Total Metals Ag As Ba C	TCLP Metals Ag As Ba C	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 62	GC/MS Semi. Vol. 8270	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate T	General Water Chemist	Anion/Cation Balance																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
AH5	0-1'	9/30/2020	13:30	X				X		1	N	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

Relinquished by:

M. Carmona
10/1/2020 14:00

Received by:

10.1.2020 14:00

LAB USE ONLY

REMARKS:

Relinquished by:

M. Carmona
10/1/2020 14:00

Received by:

10.1.2020 14:00

Relinquished by:

M. Carmona
10/1/2020 14:00

Received by:

10.1.2020 14:00

Relinquished by:

M. Carmona
10/1/2020 14:00

Received by:

10.1.2020 14:00

Relinquished by:

M. Carmona
10/1/2020 14:00

Received by:

10.1.2020 14:00

Circle HAND DELIVERED EDEX UPS Tracking #:

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☒ Standard



Tetra Tech, Inc.

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

674080

Client Name: EOG

Site Manager: Mike Carmona

Project Name: Jackson Pipeline Release

Project Location: Lea County, New Mexico

Project #:

212C-MD-02329

Invoice to:

Todd Wells

Receiving Laboratory:

Xenco Labs

Comments:

Sampler Signature:

Scant Y

SAMPLE IDENTIFICATION

LAB #
(LAB USE ONLY)

SAMPLING

YEAR: 2020

DATE TIME

MATRIX

WATER SOIL

PRESERVATIVE METHOD

HCL HNO₃ ICE

CONTAINERS

FILTERED (Y/N)

BTEX 8021B
TPH TX1005 (Ext to C35)
TPH 8015M (GRO - DRO - ORO - MRO)
PAH 8270C
Total Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Volatiles
TCLP Semi Volatiles
RCI
GC/MS Vol. 8260B / 624
GC/MS Semi. Vol. 8270C/625
PCB's 8082 / 608
NORM
PLM (Asbestos)
Chloride 300.0
Chloride Sulfate TDS
General Water Chemistry (see attached list)
Anion/Cation Balance

Hold

ANALYSIS REQUEST
(Circle or Specify Method No.)

Requested by:

Date: 10/1/2020 Time: 1400

Received by:

Date: 10/1/2020 Time: 14:00

Requested by:

Date: Time:

Received by:

Date: Time:

Requested by:

Date: Time:

Received by:

Date: Time:

LAB USE ONLY

Sample Temperature

-87/8.2

REMARKS:

☒ Standard

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Push Charges Authorized

☐ Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED INDEX UPS Tracking #:

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 901 West Wall Street, Ste 100
 Midland, Texas 79701
 Tel (432) 682-4539
 Fax (432) 682-3946

674080

Page 1 of 1

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Jackson Pipeline Release			
Project Location: Lea County, New Mexico		Project #: 212C-MD-02329	
Invoice to: Todd Wells			
Receiving Laboratory: Xenco Labs		Sampler Signature: Scant Y <i>pm. [signature]</i>	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS
	DATE	TIME	YEAR: 2020	WATER	SOIL	HCL	HNO ₃	ICE				
AH1 0-1'	9/30/2020	14:15		X					1	N	X	
AH1 1-1.5'	9/30/2020	14:18		X					1	N	X	
AH1 2-2.5'	9/30/2020	14:21		X					1	N	X	
AH1 3-3.5'	9/30/2020	14:25		X					1	N	X	
AH1 4-4.5'	9/30/2020	14:30		X					1	N	X	
AH2 0-1'	9/30/2020	12:30		X					1	N	X	
AH2 1-1.5'	9/30/2020	12:32		X					1	N	X	
AH2 2-2.5'	9/30/2020	12:35		X					1	N	X	
AH2 3-3.5'	9/30/2020	12:38		X					1	N	X	
AH2 4-4.5'	9/30/2020	12:40		X					1	N	X	

LAB USE ONLY	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 INDEX UPS Tracking #:

-87/-8.2

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10.01.2020 02.00.00 PM

Work Order #: 674080

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-8.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 10.01.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.05.2020

Certificate of Analysis Summary 680444

Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Wed 12.09.2020 15:31

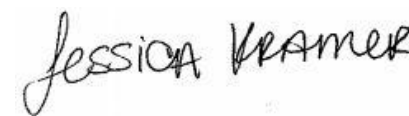
Report Date: 12.14.2020 09:55

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680444-001	680444-002	680444-003	680444-004	680444-005	680444-006
	<i>Field Id:</i>	Bore Hole-1 (0-1')	Bore Hole-1 (2-3')	Bore Hole-1 (4-5')	Bore Hole-1 (6-7')	Bore Hole-1 (8-9')	Bore Hole-1 (10-11')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.08.2020 00:00	12.08.2020 00:00	12.08.2020 00:00	12.08.2020 00:00	12.08.2020 00:00	12.08.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	12.10.2020 16:30	12.10.2020 16:30	12.10.2020 16:30	12.10.2020 16:30	12.10.2020 16:30	12.10.2020 16:30
	<i>Analyzed:</i>	12.11.2020 04:30	12.11.2020 04:50	12.11.2020 05:11	12.11.2020 05:31	12.11.2020 05:52	12.11.2020 06:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Toluene		0.00442 0.00200	0.00805 0.00202	0.00797 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.00399 0.00399	<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398	<0.00396 0.00396	<0.00403 0.00403
o-Xylene		0.0317 0.00200	0.0572 0.00202	0.0160 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total Xylenes		0.03170 0.002000	0.05720 0.002020	0.01600 0.002000	<0.001990 0.001990	<0.001980 0.001980	<0.002020 0.002020
Total BTEX		0.03612 0.002000	0.06525 0.002020	0.02397 0.002000	<0.001990 0.001990	<0.001980 0.001980	<0.002020 0.002020
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	12.10.2020 11:35	12.10.2020 11:35	12.10.2020 11:35	12.10.2020 11:35	12.10.2020 11:35	12.10.2020 11:35
	<i>Analyzed:</i>	12.10.2020 13:40	12.10.2020 13:45	12.10.2020 14:00	12.10.2020 14:06	12.10.2020 14:11	12.10.2020 14:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		665 5.05	1920 24.8	52.0 4.95	23.6 5.03	21.6 5.00	14.1 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	12.09.2020 17:00	12.09.2020 17:00	12.09.2020 17:00	12.09.2020 17:00	12.09.2020 17:00	12.09.2020 17:00
	<i>Analyzed:</i>	12.10.2020 02:06	12.10.2020 03:01	12.10.2020 03:20	12.10.2020 03:38	12.10.2020 03:57	12.10.2020 04:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		302 50.0	355 49.8	110 50.0	63.8 49.9	81.3 50.0	65.3 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Total TPH		302.0 50.00	355.0 49.80	110.0 50.00	63.80 49.90	81.30 50.00	65.30 49.90

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 680444

Tetra Tech- Midland, Midland, TX

Project Name: Jackson Pipeline

Project Id: 212C-MD-02329

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Wed 12.09.2020 15:31

Report Date: 12.14.2020 09:55

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 680444-007 Field Id: Bore Hole-1 (12-13') Depth: Matrix: SOIL Sampled: 12.08.2020 00:00					
BTEX by EPA 8021B	Extracted: 12.10.2020 16:30 Analyzed: 12.11.2020 06:33 Units/RL: mg/kg RL					
Benzene	<0.00200 0.00200					
Toluene	<0.00200 0.00200					
Ethylbenzene	<0.00200 0.00200					
m,p-Xylenes	<0.00401 0.00401					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.002000 0.002000					
Total BTEX	<0.002000 0.002000					
Inorganic Anions by EPA 300/300.1	Extracted: 12.10.2020 11:35 Analyzed: 12.10.2020 14:21 Units/RL: mg/kg RL					
Chloride	50.3 4.97					
TPH By SW8015 Mod	Extracted: 12.09.2020 17:00 Analyzed: 12.10.2020 04:34 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0					
Diesel Range Organics (DRO)	58.8 50.0					
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0					
Total TPH	58.80 50.00					

BRL - Below Reporting Limit

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



Analytical Report 680444

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Jackson Pipeline

212C-MD-02329

12.14.2020

Collected By: Client



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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.14.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **680444**

Jackson Pipeline

Project Address: Lea Co, NM

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 680444. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 680444 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 680444****Tetra Tech- Midland, Midland, TX**

Jackson Pipeline

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bore Hole-1 (0-1')	S	12.08.2020 00:00		680444-001
Bore Hole-1 (2-3')	S	12.08.2020 00:00		680444-002
Bore Hole-1 (4-5')	S	12.08.2020 00:00		680444-003
Bore Hole-1 (6-7')	S	12.08.2020 00:00		680444-004
Bore Hole-1 (8-9')	S	12.08.2020 00:00		680444-005
Bore Hole-1 (10-11')	S	12.08.2020 00:00		680444-006
Bore Hole-1 (12-13')	S	12.08.2020 00:00		680444-007



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Jackson Pipeline

Project ID: 212C-MD-02329
Work Order Number(s): 680444

Report Date: 12.14.2020
Date Received: 12.09.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (0-1')** Matrix: Soil Date Received: 12.09.2020 15:31
 Lab Sample Id: 680444-001 Date Collected: 12.08.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 12.10.2020 11:35 % Moisture:
 Seq Number: 3144512 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	665	5.05	mg/kg	12.10.2020 13:40		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 12.09.2020 17:00 % Moisture:
 Seq Number: 3144418 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.2020 02:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	302	50.0	mg/kg	12.10.2020 02:06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.2020 02:06	U	1
Total TPH	PHC635	302.0	50.00	mg/kg	12.10.2020 02:06		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-130	12.10.2020 02:06		
o-Terphenyl	84-15-1	128	%	70-130	12.10.2020 02:06		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (0-1')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-001

Date Collected: 12.08.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.10.2020 16:30

% Moisture:

Seq Number: 3144554

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.2020 04:30	U	1
Toluene	108-88-3	0.00442	0.00200	mg/kg	12.11.2020 04:30		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.2020 04:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.11.2020 04:30	U	1
o-Xylene	95-47-6	0.0317	0.00200	mg/kg	12.11.2020 04:30		1
Total Xylenes	1330-20-7	0.03170	0.002000	mg/kg	12.11.2020 04:30		1
Total BTEX		0.03612	0.002000	mg/kg	12.11.2020 04:30		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.11.2020 04:30		
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.11.2020 04:30		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (2-3')** Matrix: Soil Date Received: 12.09.2020 15:31
 Lab Sample Id: 680444-002 Date Collected: 12.08.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 12.10.2020 11:35 % Moisture:
 Seq Number: 3144512 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1920	24.8	mg/kg	12.10.2020 13:45		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 12.09.2020 17:00 % Moisture:
 Seq Number: 3144418 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.2020 03:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	355	49.8	mg/kg	12.10.2020 03:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.2020 03:01	U	1
Total TPH	PHC635	355.0	49.80	mg/kg	12.10.2020 03:01		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-130	12.10.2020 03:01		
o-Terphenyl	84-15-1	127	%	70-130	12.10.2020 03:01		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (2-3')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-002

Date Collected: 12.08.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.10.2020 16:30

% Moisture:

Seq Number: 3144554

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.11.2020 04:50	U	1
Toluene	108-88-3	0.00805	0.00202	mg/kg	12.11.2020 04:50		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.11.2020 04:50	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.11.2020 04:50	U	1
o-Xylene	95-47-6	0.0572	0.00202	mg/kg	12.11.2020 04:50		1
Total Xylenes	1330-20-7	0.05720	0.002020	mg/kg	12.11.2020 04:50		1
Total BTEX		0.06525	0.002020	mg/kg	12.11.2020 04:50		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.11.2020 04:50		
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.11.2020 04:50		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (4-5')** Matrix: Soil Date Received: 12.09.2020 15:31
 Lab Sample Id: 680444-003 Date Collected: 12.08.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 12.10.2020 11:35 % Moisture:
 Seq Number: 3144512 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	52.0	4.95	mg/kg	12.10.2020 14:00		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 12.09.2020 17:00 % Moisture:
 Seq Number: 3144418 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.2020 03:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	110	50.0	mg/kg	12.10.2020 03:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.2020 03:20	U	1
Total TPH	PHC635	110.0	50.00	mg/kg	12.10.2020 03:20		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-130	12.10.2020 03:20		
o-Terphenyl	84-15-1	118	%	70-130	12.10.2020 03:20		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (4-5')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-003

Date Collected: 12.08.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.10.2020 16:30

% Moisture:

Seq Number: 3144554

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.2020 05:11	U	1
Toluene	108-88-3	0.00797	0.00200	mg/kg	12.11.2020 05:11		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.2020 05:11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.11.2020 05:11	U	1
o-Xylene	95-47-6	0.0160	0.00200	mg/kg	12.11.2020 05:11		1
Total Xylenes	1330-20-7	0.01600	0.002000	mg/kg	12.11.2020 05:11		1
Total BTEX		0.02397	0.002000	mg/kg	12.11.2020 05:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.11.2020 05:11	
4-Bromofluorobenzene	460-00-4	112	%	70-130	12.11.2020 05:11	



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (6-7')** Matrix: Soil Date Received: 12.09.2020 15:31
 Lab Sample Id: 680444-004 Date Collected: 12.08.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 12.10.2020 11:35 % Moisture:
 Seq Number: 3144512 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.6	5.03	mg/kg	12.10.2020 14:06		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 12.09.2020 17:00 % Moisture:
 Seq Number: 3144418 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.2020 03:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	63.8	49.9	mg/kg	12.10.2020 03:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.2020 03:38	U	1
Total TPH	PHC635	63.80	49.90	mg/kg	12.10.2020 03:38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	106	%	70-130	12.10.2020 03:38		
o-Terphenyl	84-15-1	112	%	70-130	12.10.2020 03:38		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (6-7')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-004

Date Collected: 12.08.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.10.2020 16:30

% Moisture:

Seq Number: 3144554

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.11.2020 05:31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.11.2020 05:31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.11.2020 05:31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.11.2020 05:31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.11.2020 05:31	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	12.11.2020 05:31	U	1
Total BTEX		<0.001990	0.001990	mg/kg	12.11.2020 05:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.11.2020 05:31		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.11.2020 05:31		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (8-9')** Matrix: Soil Date Received: 12.09.2020 15:31
 Lab Sample Id: 680444-005 Date Collected: 12.08.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 12.10.2020 11:35 % Moisture:
 Seq Number: 3144512 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.6	5.00	mg/kg	12.10.2020 14:11		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 12.09.2020 17:00 % Moisture:
 Seq Number: 3144418 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.2020 03:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.3	50.0	mg/kg	12.10.2020 03:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.2020 03:57	U	1
Total TPH	PHC635	81.30	50.00	mg/kg	12.10.2020 03:57		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	112	%	70-130	12.10.2020 03:57		
o-Terphenyl	84-15-1	116	%	70-130	12.10.2020 03:57		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (8-9')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-005

Date Collected: 12.08.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.10.2020 16:30

% Moisture:

Seq Number: 3144554

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.11.2020 05:52	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.11.2020 05:52	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.11.2020 05:52	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.11.2020 05:52	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.11.2020 05:52	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	12.11.2020 05:52	U	1
Total BTEX		<0.001980	0.001980	mg/kg	12.11.2020 05:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.11.2020 05:52		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.11.2020 05:52		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (10-11')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-006

Date Collected: 12.08.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.10.2020 11:35

% Moisture:

Seq Number: 3144512

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.1	5.00	mg/kg	12.10.2020 14:16		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.09.2020 17:00

% Moisture:

Seq Number: 3144418

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.2020 04:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	65.3	49.9	mg/kg	12.10.2020 04:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.2020 04:15	U	1
Total TPH	PHC635	65.30	49.90	mg/kg	12.10.2020 04:15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-130	12.10.2020 04:15		
o-Terphenyl	84-15-1	114	%	70-130	12.10.2020 04:15		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (10-11')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-006

Date Collected: 12.08.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.10.2020 16:30

% Moisture:

Seq Number: 3144554

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.11.2020 06:12	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.11.2020 06:12	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.11.2020 06:12	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.11.2020 06:12	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.11.2020 06:12	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	12.11.2020 06:12	U	1
Total BTEX		<0.002020	0.002020	mg/kg	12.11.2020 06:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.11.2020 06:12		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.11.2020 06:12		



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (12-13')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-007

Date Collected: 12.08.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 12.10.2020 11:35

% Moisture:

Seq Number: 3144512

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.3	4.97	mg/kg	12.10.2020 14:21		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.09.2020 17:00

% Moisture:

Seq Number: 3144418

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.2020 04:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	58.8	50.0	mg/kg	12.10.2020 04:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.2020 04:34	U	1
Total TPH	PHC635	58.80	50.00	mg/kg	12.10.2020 04:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	12.10.2020 04:34	
o-Terphenyl	84-15-1	115	%	70-130	12.10.2020 04:34	



Certificate of Analytical Results 680444

Tetra Tech- Midland, Midland, TX

Jackson Pipeline

Sample Id: **Bore Hole-1 (12-13')**

Matrix: Soil

Date Received: 12.09.2020 15:31

Lab Sample Id: 680444-007

Date Collected: 12.08.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.10.2020 16:30

% Moisture:

Seq Number: 3144554

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.2020 06:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.11.2020 06:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.2020 06:33	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.11.2020 06:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.11.2020 06:33	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.11.2020 06:33	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.11.2020 06:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.11.2020 06:33		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.11.2020 06:33		

Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



Tetra Tech- Midland Jackson Pipeline

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3144512

Matrix: Solid

Prep Method: E300P

Date Prep: 12.10.2020

MB Sample Id: 7716798-1-BLK

LCS Sample Id: 7716798-1-BKS

LCSD Sample Id: 7716798-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	258	103	259	104	90-110	0	20	mg/kg	12.10.2020 13:03	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3144512

Matrix: Solid

Prep Method: E300P

Date Prep: 12.10.2020

Parent Sample Id: 680433-002

MS Sample Id: 680433-002 S

MSD Sample Id: 680433-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	280	112	270	108	90-110	4	20	mg/kg	12.10.2020 13:19	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3144512

Matrix: Soil

Prep Method: E300P

Date Prep: 12.10.2020

Parent Sample Id: 680447-001

MS Sample Id: 680447-001 S

MSD Sample Id: 680447-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.03	252	288	114	282	112	90-110	2	20	mg/kg	12.10.2020 14:32	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3144418

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.09.2020

MB Sample Id: 7716769-1-BLK

LCS Sample Id: 7716769-1-BKS

LCSD Sample Id: 7716769-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	998	100	979	98	70-130	2	20	mg/kg	12.10.2020 01:29	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-130	0	20	mg/kg	12.10.2020 01:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		117		113		70-130	%	12.10.2020 01:29
o-Terphenyl	114		119		119		70-130	%	12.10.2020 01:29

Analytical Method: TPH By SW8015 Mod

Seq Number: 3144418

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.09.2020

MB Sample Id: 7716769-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.10.2020 01:10	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Tetra Tech- Midland

Jackson Pipeline

Analytical Method: TPH By SW8015 Mod

Seq Number: 3144418

Parent Sample Id: 680444-001

Matrix: Soil

MS Sample Id: 680444-001 S

Prep Method: SW8015P

Date Prep: 12.09.2020

MSD Sample Id: 680444-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	1030	103	1010	101	70-130	2	20	mg/kg	12.10.2020 02:24	
Diesel Range Organics (DRO)	302	998	1360	106	1320	102	70-130	3	20	mg/kg	12.10.2020 02:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		122		70-130	%	12.10.2020 02:24
o-Terphenyl	126		125		70-130	%	12.10.2020 02:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3144554

MB Sample Id: 7716885-1-BLK

Matrix: Solid

LCS Sample Id: 7716885-1-BKS

Prep Method: SW5035A

Date Prep: 12.10.2020

LCSD Sample Id: 7716885-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0979	98	0.0990	99	70-130	1	35	mg/kg	12.11.2020 01:49	
Toluene	<0.00200	0.100	0.0906	91	0.0920	92	70-130	2	35	mg/kg	12.11.2020 01:49	
Ethylbenzene	<0.00200	0.100	0.0964	96	0.0981	98	70-130	2	35	mg/kg	12.11.2020 01:49	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.191	96	70-130	3	35	mg/kg	12.11.2020 01:49	
o-Xylene	<0.00200	0.100	0.0930	93	0.0952	95	70-130	2	35	mg/kg	12.11.2020 01:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		104		103		70-130	%	12.11.2020 01:49
4-Bromofluorobenzene	111		98		96		70-130	%	12.11.2020 01:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3144554

Parent Sample Id: 680540-007

Matrix: Sludge

MS Sample Id: 680540-007 S

Prep Method: SW5035A

Date Prep: 12.10.2020

MSD Sample Id: 680540-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000598	0.0996	0.0670	67	0.0631	63	70-130	6	35	mg/kg	12.11.2020 02:29	X
Toluene	0.00230	0.0996	0.0582	56	0.0566	55	70-130	3	35	mg/kg	12.11.2020 02:29	X
Ethylbenzene	0.000906	0.0996	0.0564	56	0.0552	55	70-130	2	35	mg/kg	12.11.2020 02:29	X
m,p-Xylenes	0.00170	0.199	0.108	53	0.103	51	70-130	5	35	mg/kg	12.11.2020 02:29	X
o-Xylene	0.00161	0.0996	0.0525	51	0.0778	77	70-130	39	35	mg/kg	12.11.2020 02:29	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.11.2020 02:29
4-Bromofluorobenzene	104		109		70-130	%	12.11.2020 02:29

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12.09.2020 03.31.00 PM

Work Order #: 680444

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 12.09.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.11.2020



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-707-1

Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Jackson Pipeline Release
Revision: 1

For:

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

Attn: Clair Gonzales

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

Authorized for release by:
6/14/2021 2:11:55 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: Jackson Pipeline Release

Laboratory Job ID: 890-707-1
SDG: Lea County NM

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
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
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Eurofins Xenco, Carlsbad

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Job ID: 890-707-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-707-1

Comments

No additional comments.

Receipt

The samples were received on 5/20/2021 3:00 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 was 2.0° C.

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH-15 (3') (890-707-15). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH-4 (2') (890-707-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 880-3332 and analytical batch 880-3336 were outside control limits: (LCS 880-3332/1-A), (LCSD 880-3332/2-A), (880-2354-A-21-A MS) and (880-2354-A-21-B MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-3336 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

GC Semi VOA

Method 8015B NM: The surrogate recovery for the blank associated with preparation batch 880-3408 and analytical batch 880-3402 was outside the lower control limits.

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-1 (2')

Lab Sample ID: 890-707-1

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/21/21 08:40	05/21/21 17:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/21/21 08:40	05/21/21 17:50	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/21/21 08:40	05/21/21 17:50	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/21/21 08:40	05/21/21 17:50	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/21/21 08:40	05/21/21 17:50	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/21/21 08:40	05/21/21 17:50	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		05/21/21 08:40	05/21/21 17:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	05/21/21 08:40	05/21/21 17:50	1
1,4-Difluorobenzene (Surr)	120		70 - 130	05/21/21 08:40	05/21/21 17:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 14:18	1
Diesel Range Organics (Over C10-C28)	69.3		49.9		mg/Kg		05/24/21 11:15	05/24/21 14:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 14:18	1
Total TPH	69.3		49.9		mg/Kg		05/24/21 11:15	05/24/21 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	05/24/21 11:15	05/24/21 14:18	1
o-Terphenyl	104		70 - 130	05/24/21 11:15	05/24/21 14:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	192		5.01		mg/Kg			05/25/21 03:22	1

Client Sample ID: BH-2 (2')

Lab Sample ID: 890-707-2

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 18:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 18:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 18:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 18:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 18:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 18:11	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	05/21/21 08:40	05/21/21 18:11	1
1,4-Difluorobenzene (Surr)	131	S1+	70 - 130	05/21/21 08:40	05/21/21 18:11	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-2 (2')

Lab Sample ID: 890-707-2

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:21	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:21	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:21	1
Total TPH	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	05/24/21 11:15	05/24/21 15:21	1
o-Terphenyl	103		70 - 130	05/24/21 11:15	05/24/21 15:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	591		4.98		mg/Kg			05/25/21 03:37	1

Client Sample ID: BH-3 (2')

Lab Sample ID: 890-707-3

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00231		0.00199		mg/Kg		05/21/21 08:40	05/21/21 18:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 18:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 18:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 18:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 18:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 18:31	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	05/21/21 08:40	05/21/21 18:31	1
1,4-Difluorobenzene (Surr)	124		70 - 130	05/21/21 08:40	05/21/21 18:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:42	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:42	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:42	1
Total TPH	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	05/24/21 11:15	05/24/21 15:42	1
o-Terphenyl	93		70 - 130	05/24/21 11:15	05/24/21 15:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.79		4.95		mg/Kg			05/25/21 03:42	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-4 (2')

Lab Sample ID: 890-707-4

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:40	05/21/21 18:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:40	05/21/21 18:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:40	05/21/21 18:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/21/21 08:40	05/21/21 18:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:40	05/21/21 18:52	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/21/21 08:40	05/21/21 18:52	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/21/21 08:40	05/21/21 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	05/21/21 08:40	05/21/21 18:52	1
1,4-Difluorobenzene (Surr)	138	S1+	70 - 130	05/21/21 08:40	05/21/21 18:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 16:04	1
Diesel Range Organics (Over C10-C28)	74.2		49.9		mg/Kg		05/24/21 11:15	05/24/21 16:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 16:04	1
Total TPH	74.2		49.9		mg/Kg		05/24/21 11:15	05/24/21 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130	05/24/21 11:15	05/24/21 16:04	1
o-Terphenyl	108		70 - 130	05/24/21 11:15	05/24/21 16:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	196		5.03		mg/Kg			05/25/21 03:47	1

Client Sample ID: BH-5 (2')

Lab Sample ID: 890-707-5

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00224		0.00202		mg/Kg		05/21/21 08:40	05/21/21 19:13	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/21/21 08:40	05/21/21 19:13	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/21/21 08:40	05/21/21 19:13	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/21/21 08:40	05/21/21 19:13	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/21/21 08:40	05/21/21 19:13	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/21/21 08:40	05/21/21 19:13	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		05/21/21 08:40	05/21/21 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	05/21/21 08:40	05/21/21 19:13	1
1,4-Difluorobenzene (Surr)	129		70 - 130	05/21/21 08:40	05/21/21 19:13	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-5 (2')

Lab Sample ID: 890-707-5

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 16:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 16:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 16:25	1
Total TPH	<49.8	U	49.8		mg/Kg		05/24/21 11:15	05/24/21 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130	05/24/21 11:15	05/24/21 16:25	1
o-Terphenyl	108		70 - 130	05/24/21 11:15	05/24/21 16:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.4		5.03		mg/Kg			05/25/21 03:52	1

Client Sample ID: BH-6 (2')

Lab Sample ID: 890-707-6

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:33	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/21/21 08:40	05/21/21 19:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:33	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/21/21 08:40	05/21/21 19:33	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/21/21 08:40	05/21/21 19:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	05/21/21 08:40	05/21/21 19:33	1
1,4-Difluorobenzene (Surr)	126		70 - 130	05/21/21 08:40	05/21/21 19:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 16:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 16:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 16:46	1
Total TPH	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	05/24/21 11:15	05/24/21 16:46	1
o-Terphenyl	102		70 - 130	05/24/21 11:15	05/24/21 16:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.72		5.05		mg/Kg			05/25/21 04:06	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-7 (2')

Lab Sample ID: 890-707-7

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 19:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 19:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 19:54	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	05/21/21 08:40	05/21/21 19:54	1
1,4-Difluorobenzene (Surr)	122		70 - 130	05/21/21 08:40	05/21/21 19:54	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	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 17:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 17:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 17:07	1
Total TPH	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	140	S1+	70 - 130	05/24/21 11:15	05/24/21 17:07	1
o-Terphenyl	122		70 - 130	05/24/21 11:15	05/24/21 17:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201		5.02		mg/Kg			05/25/21 04:11	1

Client Sample ID: BH-8 (2')

Lab Sample ID: 890-707-8

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 20:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 20:15	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	05/21/21 08:40	05/21/21 20:15	1
1,4-Difluorobenzene (Surr)	113		70 - 130	05/21/21 08:40	05/21/21 20:15	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-8 (2')

Lab Sample ID: 890-707-8

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 17:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 17:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 17:28	1
Total TPH	<49.9	U	49.9		mg/Kg		05/24/21 11:15	05/24/21 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	05/24/21 11:15	05/24/21 17:28	1
o-Terphenyl	119		70 - 130	05/24/21 11:15	05/24/21 17:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.09		4.98		mg/Kg			05/25/21 04:16	1

Client Sample ID: BH-9 (2')

Lab Sample ID: 890-707-9

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00239		0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 20:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:40	05/21/21 20:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 20:36	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/21/21 08:40	05/21/21 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	05/21/21 08:40	05/21/21 20:36	1
1,4-Difluorobenzene (Surr)	123		70 - 130	05/21/21 08:40	05/21/21 20:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 17:49	1
Diesel Range Organics (Over C10-C28)	65.2		50.0		mg/Kg		05/24/21 11:15	05/24/21 17:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 17:49	1
Total TPH	65.2		50.0		mg/Kg		05/24/21 11:15	05/24/21 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130	05/24/21 11:15	05/24/21 17:49	1
o-Terphenyl	131	S1+	70 - 130	05/24/21 11:15	05/24/21 17:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.8		4.96		mg/Kg			05/25/21 04:21	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-10 (2')

Lab Sample ID: 890-707-10

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/21/21 23:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/21/21 23:42	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/21/21 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	05/21/21 08:47	05/21/21 23:42	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/21/21 23:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 18:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 18:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 18:10	1
Total TPH	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130	05/24/21 11:15	05/24/21 18:10	1
o-Terphenyl	102		70 - 130	05/24/21 11:15	05/24/21 18:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.2		4.97		mg/Kg			05/25/21 04:26	1

Client Sample ID: BH-11 (2')

Lab Sample ID: 890-707-11

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 00:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 00:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 00:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 00:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 00:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 00:02	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 00:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	05/21/21 08:47	05/22/21 00:02	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/22/21 00:02	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-11 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 2

Lab Sample ID: 890-707-11

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 14:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 14:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 14:18	1
Total TPH	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	05/24/21 11:18	05/24/21 14:18	1
o-Terphenyl	113		70 - 130	05/24/21 11:18	05/24/21 14:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.3		4.99		mg/Kg			05/25/21 04:31	1

Client Sample ID: BH-12 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 2

Lab Sample ID: 890-707-12

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:23	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:23	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:23	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 00:23	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:23	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 00:23	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	05/21/21 08:47	05/22/21 00:23	1
1,4-Difluorobenzene (Surr)	97		70 - 130	05/21/21 08:47	05/22/21 00:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:21	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:21	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:21	1
Total TPH	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	05/24/21 11:18	05/24/21 15:21	1
o-Terphenyl	104		70 - 130	05/24/21 11:18	05/24/21 15:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	598		4.95		mg/Kg			05/25/21 04:45	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-13 (2')

Lab Sample ID: 890-707-13

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:43	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:43	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:43	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/21/21 08:47	05/22/21 00:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 00:43	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/21/21 08:47	05/22/21 00:43	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		05/21/21 08:47	05/22/21 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	05/21/21 08:47	05/22/21 00:43	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/22/21 00:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:42	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:42	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:42	1
Total TPH	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	05/24/21 11:18	05/24/21 15:42	1
o-Terphenyl	91		70 - 130	05/24/21 11:18	05/24/21 15:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	574		5.03		mg/Kg			06/10/21 12:12	1

Client Sample ID: BH-14 (3')

Lab Sample ID: 890-707-14

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 01:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 01:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 01:04	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 01:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 01:04	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 01:04	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	05/21/21 08:47	05/22/21 01:04	1
1,4-Difluorobenzene (Surr)	99		70 - 130	05/21/21 08:47	05/22/21 01:04	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-14 (3')

Lab Sample ID: 890-707-14

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:04	1
Total TPH	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	05/24/21 11:18	05/24/21 16:04	1
o-Terphenyl	92		70 - 130	05/24/21 11:18	05/24/21 16:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.5		5.04		mg/Kg			05/25/21 05:05	1

Client Sample ID: BH-15 (3')

Lab Sample ID: 890-707-15

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

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		05/21/21 08:47	05/22/21 01:24	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 01:24	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 01:24	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 01:24	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 01:24	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 01:24	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	41	S1-	70 - 130	05/21/21 08:47	05/22/21 01:24	1
1,4-Difluorobenzene (Surr)	99		70 - 130	05/21/21 08:47	05/22/21 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 16:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 16:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 16:25	1
Total TPH	<49.8	U	49.8		mg/Kg		05/24/21 11:18	05/24/21 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	05/24/21 11:18	05/24/21 16:25	1
o-Terphenyl	95		70 - 130	05/24/21 11:18	05/24/21 16:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.5		5.04		mg/Kg			05/25/21 05:10	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-16 (3')

Lab Sample ID: 890-707-16

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 01:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 01:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 01:44	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/21/21 08:47	05/22/21 01:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 01:44	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/21/21 08:47	05/22/21 01:44	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/21/21 08:47	05/22/21 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	05/21/21 08:47	05/22/21 01:44	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/22/21 01:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:46	1
Total TPH	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	05/24/21 11:18	05/24/21 16:46	1
o-Terphenyl	100		70 - 130	05/24/21 11:18	05/24/21 16:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.6		4.97		mg/Kg			05/25/21 05:15	1

Client Sample ID: BH-17 (3')

Lab Sample ID: 890-707-17

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 02:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 02:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 02:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 02:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 02:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 02:05	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	05/21/21 08:47	05/22/21 02:05	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/21/21 08:47	05/22/21 02:05	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-17 (3')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 3

Lab Sample ID: 890-707-17

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:07	1
Total TPH	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	05/24/21 11:18	05/24/21 17:07	1
o-Terphenyl	87		70 - 130	05/24/21 11:18	05/24/21 17:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.6		4.95		mg/Kg			05/25/21 05:20	1

Client Sample ID: BH-18 (3')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 3

Lab Sample ID: 890-707-18

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 02:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 02:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 02:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 02:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 02:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 02:25	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	05/21/21 08:47	05/22/21 02:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	05/21/21 08:47	05/22/21 02:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 17:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 17:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 17:28	1
Total TPH	<49.9	U	49.9		mg/Kg		05/24/21 11:18	05/24/21 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	05/24/21 11:18	05/24/21 17:28	1
o-Terphenyl	82		70 - 130	05/24/21 11:18	05/24/21 17:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.3		5.03		mg/Kg			05/25/21 05:25	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-19 (3')

Lab Sample ID: 890-707-19

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 02:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 02:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 02:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 02:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 02:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 02:46	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 02:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	05/21/21 08:47	05/22/21 02:46	1
1,4-Difluorobenzene (Surr)	94		70 - 130	05/21/21 08:47	05/22/21 02:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:49	1
Total TPH	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	05/24/21 11:18	05/24/21 17:49	1
o-Terphenyl	100		70 - 130	05/24/21 11:18	05/24/21 17:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.8		5.01		mg/Kg			05/25/21 05:29	1

Client Sample ID: BH-20 (3')

Lab Sample ID: 890-707-20

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

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		05/21/21 08:47	05/22/21 14:54	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 14:54	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 14:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 14:54	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 14:54	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 14:54	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 14:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/22/21 14:54	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/21/21 08:47	05/22/21 14:54	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-20 (3')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 3

Lab Sample ID: 890-707-20

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 18:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 18:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 18:10	1
Total TPH	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/24/21 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	05/24/21 11:18	05/24/21 18:10	1
o-Terphenyl	94		70 - 130	05/24/21 11:18	05/24/21 18:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.4		5.05		mg/Kg			05/25/21 05:34	1

Client Sample ID: BH-21 (4.5')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 4.5

Lab Sample ID: 890-707-21

Matrix: Solid

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		05/21/21 08:47	05/22/21 15:14	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 15:14	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 15:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 15:14	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/21/21 08:47	05/22/21 15:14	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 15:14	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/21/21 08:47	05/22/21 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	05/21/21 08:47	05/22/21 15:14	1
1,4-Difluorobenzene (Surr)	99		70 - 130	05/21/21 08:47	05/22/21 15:14	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		05/21/21 14:45	05/22/21 14:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 14:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 14:27	1
Total TPH	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	05/21/21 14:45	05/22/21 14:27	1
o-Terphenyl	95		70 - 130	05/21/21 14:45	05/22/21 14:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1450		4.95		mg/Kg			05/25/21 06:57	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-22 (4.5')

Lab Sample ID: 890-707-22

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

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		05/21/21 08:47	05/22/21 15:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 15:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 15:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 15:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 15:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 15:35	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	05/21/21 08:47	05/22/21 15:35	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/21/21 08:47	05/22/21 15:35	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		05/21/21 14:45	05/22/21 16:49	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 16:49	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 16:49	1
Total TPH	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 16:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	05/21/21 14:45	05/22/21 16:49	1
o-Terphenyl	107		70 - 130	05/21/21 14:45	05/22/21 16:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1490		4.99		mg/Kg			05/25/21 07:02	1

Client Sample ID: SW-1 (2')

Lab Sample ID: 890-707-23

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 15:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 15:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 15:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/22/21 15:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 15:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/22/21 15:55	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/22/21 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	05/21/21 08:47	05/22/21 15:55	1
1,4-Difluorobenzene (Surr)	99		70 - 130	05/21/21 08:47	05/22/21 15:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-1 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 2

Lab Sample ID: 890-707-23

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 17:11	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 17:11	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 17:11	1
Total TPH	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	05/21/21 14:45	05/22/21 17:11	1
o-Terphenyl	96		70 - 130	05/21/21 14:45	05/22/21 17:11	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.8		5.01		mg/Kg			05/25/21 07:07	1

Client Sample ID: SW-2 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 2

Lab Sample ID: 890-707-24

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 16:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 16:16	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	05/21/21 08:47	05/22/21 16:16	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/22/21 16:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:32	1
Total TPH	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	05/21/21 14:45	05/22/21 17:32	1
o-Terphenyl	108		70 - 130	05/21/21 14:45	05/22/21 17:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.0		5.03		mg/Kg			05/25/21 07:12	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-3 (2')

Lab Sample ID: 890-707-25

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 16:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 16:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 16:36	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/22/21 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	05/21/21 08:47	05/22/21 16:36	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/21/21 08:47	05/22/21 16:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:54	1
Total TPH	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	05/21/21 14:45	05/22/21 17:54	1
o-Terphenyl	100		70 - 130	05/21/21 14:45	05/22/21 17:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.0		5.04		mg/Kg			05/25/21 07:17	1

Client Sample ID: SW-4 (2')

Lab Sample ID: 890-707-26

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 16:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 16:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 16:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 16:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/21/21 08:47	05/22/21 16:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 16:56	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/21/21 08:47	05/22/21 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	05/21/21 08:47	05/22/21 16:56	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/22/21 16:56	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-4 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 2

Lab Sample ID: 890-707-26

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 18:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 18:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 18:16	1
Total TPH	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	05/21/21 14:45	05/22/21 18:16	1
o-Terphenyl	105		70 - 130	05/21/21 14:45	05/22/21 18:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.1		5.05		mg/Kg			05/25/21 07:22	1

Client Sample ID: SW-5 (3')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 3

Lab Sample ID: 890-707-27

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 17:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 17:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 17:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/22/21 17:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/22/21 17:17	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/22/21 17:17	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/21/21 08:47	05/22/21 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	05/21/21 08:47	05/22/21 17:17	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/21/21 08:47	05/22/21 17:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:37	1
Total TPH	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	05/21/21 14:45	05/22/21 18:37	1
o-Terphenyl	95		70 - 130	05/21/21 14:45	05/22/21 18:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.1		4.98		mg/Kg			05/25/21 07:36	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-6 (4.5')

Lab Sample ID: 890-707-28

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

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		05/21/21 08:47	05/22/21 17:37	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 17:37	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 17:37	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 17:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 17:37	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 17:37	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/21/21 08:47	05/22/21 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	05/21/21 08:47	05/22/21 17:37	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/21/21 08:47	05/22/21 17:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:59	1
Total TPH	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	05/21/21 14:45	05/22/21 18:59	1
o-Terphenyl	92		70 - 130	05/21/21 14:45	05/22/21 18:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.6		4.95		mg/Kg			05/25/21 07:41	1

Client Sample ID: SW-7 (4.5')

Lab Sample ID: 890-707-29

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

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		05/21/21 08:47	05/22/21 17:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 17:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 17:58	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/21/21 08:47	05/22/21 17:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/21/21 08:47	05/22/21 17:58	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/21/21 08:47	05/22/21 17:58	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		05/21/21 08:47	05/22/21 17:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	05/21/21 08:47	05/22/21 17:58	1
1,4-Difluorobenzene (Surr)	97		70 - 130	05/21/21 08:47	05/22/21 17:58	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-7 (4.5')

Lab Sample ID: 890-707-29

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

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		05/21/21 14:45	05/22/21 19:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 19:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 19:20	1
Total TPH	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 19:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	05/21/21 14:45	05/22/21 19:20	1
o-Terphenyl	99		70 - 130	05/21/21 14:45	05/22/21 19:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	127		4.98		mg/Kg			05/25/21 07:56	1

Client Sample ID: SW-8 (4.5')

Lab Sample ID: 890-707-30

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

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		05/21/21 15:00	05/22/21 12:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 12:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 12:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/21/21 15:00	05/22/21 12:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 12:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/21/21 15:00	05/22/21 12:02	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/21/21 15:00	05/22/21 12:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	05/21/21 15:00	05/22/21 12:02	1
1,4-Difluorobenzene (Surr)	102		70 - 130	05/21/21 15:00	05/22/21 12:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 19:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 19:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 19:42	1
Total TPH	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	05/21/21 14:45	05/22/21 19:42	1
o-Terphenyl	86		70 - 130	05/21/21 14:45	05/22/21 19:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.3		5.03		mg/Kg			05/25/21 08:01	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-9 (3')

Lab Sample ID: 890-707-31

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *	0.00200		mg/Kg		05/21/21 15:00	05/22/21 12:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 12:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 12:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/21/21 15:00	05/22/21 12:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 12:29	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/21/21 15:00	05/22/21 12:29	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/21/21 15:00	05/22/21 12:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	05/21/21 15:00	05/22/21 12:29	1
1,4-Difluorobenzene (Surr)	105		70 - 130	05/21/21 15:00	05/22/21 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 20:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 20:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 20:25	1
Total TPH	<49.8	U	49.8		mg/Kg		05/21/21 14:45	05/22/21 20:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	05/21/21 14:45	05/22/21 20:25	1
o-Terphenyl	89		70 - 130	05/21/21 14:45	05/22/21 20:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.2		5.02		mg/Kg			05/25/21 08:06	1

Client Sample ID: SW-10 (4.5')

Lab Sample ID: 890-707-32

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

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		05/21/21 15:00	05/22/21 12:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/21/21 15:00	05/22/21 12:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/21/21 15:00	05/22/21 12:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/21/21 15:00	05/22/21 12:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/21/21 15:00	05/22/21 12:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/21/21 15:00	05/22/21 12:55	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/21/21 15:00	05/22/21 12:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	05/21/21 15:00	05/22/21 12:55	1
1,4-Difluorobenzene (Surr)	104		70 - 130	05/21/21 15:00	05/22/21 12:55	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-10 (4.5')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 4.5

Lab Sample ID: 890-707-32

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 20:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 20:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 20:47	1
Total TPH	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	05/21/21 14:45	05/22/21 20:47	1
o-Terphenyl	100		70 - 130	05/21/21 14:45	05/22/21 20:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		5.05		mg/Kg			05/25/21 08:11	1

Client Sample ID: SW-11 (3')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Sample Depth: - 3

Lab Sample ID: 890-707-33

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *	0.00200		mg/Kg		05/21/21 15:00	05/22/21 13:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 13:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 13:20	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/21/21 15:00	05/22/21 13:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 15:00	05/22/21 13:20	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/21/21 15:00	05/22/21 13:20	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/21/21 15:00	05/22/21 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	05/21/21 15:00	05/22/21 13:20	1
1,4-Difluorobenzene (Surr)	101		70 - 130	05/21/21 15:00	05/22/21 13:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 21:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 21:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 21:08	1
Total TPH	<49.9	U	49.9		mg/Kg		05/21/21 14:45	05/22/21 21:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	05/21/21 14:45	05/22/21 21:08	1
o-Terphenyl	94		70 - 130	05/21/21 14:45	05/22/21 21:08	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.8		4.99		mg/Kg			05/25/21 08:16	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
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)
890-707-1	BH-1 (2')	103	120
890-707-2	BH-2 (2')	98	131 S1+
890-707-3	BH-3 (2')	103	124
890-707-4	BH-4 (2')	104	138 S1+
890-707-5	BH-5 (2')	101	129
890-707-6	BH-6 (2')	104	126
890-707-7	BH-7 (2')	97	122
890-707-8	BH-8 (2')	94	113
890-707-9	BH-9 (2')	101	123
890-707-10	BH-10 (2')	88	96
890-707-10 MS	BH-10 (2')	110	103
890-707-10 MSD	BH-10 (2')	102	102
890-707-11	BH-11 (2')	95	96
890-707-12	BH-12 (2')	98	97
890-707-13	BH-13 (2')	92	96
890-707-14	BH-14 (3')	94	99
890-707-15	BH-15 (3')	41 S1-	99
890-707-16	BH-16 (3')	90	96
890-707-17	BH-17 (3')	101	98
890-707-18	BH-18 (3')	97	93
890-707-19	BH-19 (3')	95	94
890-707-20	BH-20 (3')	96	98
890-707-21	BH-21 (4.5')	98	99
890-707-22	BH-22 (4.5')	89	98
890-707-23	SW-1 (2')	97	99
890-707-24	SW-2 (2')	92	96
890-707-25	SW-3 (2')	91	98
890-707-26	SW-4 (2')	94	96
890-707-27	SW-5 (3')	92	98
890-707-28	SW-6 (4.5')	96	95
890-707-29	SW-7 (4.5')	85	97
890-707-30	SW-8 (4.5')	100	102
890-707-31	SW-9 (3')	103	105
890-707-32	SW-10 (4.5')	124	104
890-707-33	SW-11 (3')	124	101
LCS 880-3314/1-A	Lab Control Sample	88	123
LCS 880-3316/1-A	Lab Control Sample	107	104
LCS 880-3332/1-A	Lab Control Sample	113	101
LCSD 880-3314/2-A	Lab Control Sample Dup	95	127
LCSD 880-3316/2-A	Lab Control Sample Dup	109	104
LCSD 880-3332/2-A	Lab Control Sample Dup	99	105
MB 880-3312/5-A	Method Blank	90	95
MB 880-3313/5-A	Method Blank	81	80
MB 880-3314/5-A	Method Blank	105	114
MB 880-3316/5-A	Method Blank	90	94
MB 880-3332/5-A	Method Blank	76	85

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-707-1	BH-1 (2')	119	104
890-707-1 MS	BH-1 (2')	113	85
890-707-1 MSD	BH-1 (2')	108	84
890-707-2	BH-2 (2')	118	103
890-707-3	BH-3 (2')	114	93
890-707-4	BH-4 (2')	126	108
890-707-5	BH-5 (2')	126	108
890-707-6	BH-6 (2')	121	102
890-707-7	BH-7 (2')	140 S1+	122
890-707-8	BH-8 (2')	136 S1+	119
890-707-9	BH-9 (2')	151 S1+	131 S1+
890-707-10	BH-10 (2')	124	102
890-707-11	BH-11 (2')	118	113
890-707-11 MS	BH-11 (2')	91	83
890-707-11 MSD	BH-11 (2')	99	88
890-707-12	BH-12 (2')	110	104
890-707-13	BH-13 (2')	95	91
890-707-14	BH-14 (3')	98	92
890-707-15	BH-15 (3')	99	95
890-707-16	BH-16 (3')	110	100
890-707-17	BH-17 (3')	95	87
890-707-18	BH-18 (3')	90	82
890-707-19	BH-19 (3')	108	100
890-707-20	BH-20 (3')	98	94
890-707-21	BH-21 (4.5')	92	95
890-707-21 MS	BH-21 (4.5')	98	87
890-707-21 MSD	BH-21 (4.5')	95	86
890-707-22	BH-22 (4.5')	99	107
890-707-23	SW-1 (2')	93	96
890-707-24	SW-2 (2')	112	108
890-707-25	SW-3 (2')	102	100
890-707-26	SW-4 (2')	105	105
890-707-27	SW-5 (3')	91	95
890-707-28	SW-6 (4.5')	90	92
890-707-29	SW-7 (4.5')	96	99
890-707-30	SW-8 (4.5')	86	86
890-707-31	SW-9 (3')	87	89
890-707-32	SW-10 (4.5')	95	100
890-707-33	SW-11 (3')	90	94
LCS 880-3357/2-A	Lab Control Sample	109	94
LCS 880-3408/2-A	Lab Control Sample	128	98
LCS 880-3409/2-A	Lab Control Sample	111	99
LCSD 880-3357/3-A	Lab Control Sample Dup	99	95
LCSD 880-3408/3-A	Lab Control Sample Dup	123	98
LCSD 880-3409/3-A	Lab Control Sample Dup	116	104
MB 880-3357/1-A	Method Blank	1 S1-	2 S1-
MB 880-3408/1-A	Method Blank	0.3 S1-	0.6 S1-
MB 880-3409/1-A	Method Blank	109	106

Surrogate Legend

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release
1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Job ID: 890-707-1
SDG: Lea County NM

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Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3312/5-A

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:33	05/21/21 12:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:33	05/21/21 12:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:33	05/21/21 12:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:33	05/21/21 12:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:33	05/21/21 12:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:33	05/21/21 12:29	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:33	05/21/21 12:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	05/21/21 08:33	05/21/21 12:29	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/21/21 08:33	05/21/21 12:29	1

Lab Sample ID: MB 880-3313/5-A

Matrix: Solid

Analysis Batch: 3336

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 11:00	05/21/21 15:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 11:00	05/21/21 15:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 11:00	05/21/21 15:57	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 11:00	05/21/21 15:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	05/21/21 11:00	05/21/21 15:57	1
1,4-Difluorobenzene (Surr)	80		70 - 130	05/21/21 11:00	05/21/21 15:57	1

Lab Sample ID: MB 880-3314/5-A

Matrix: Solid

Analysis Batch: 3318

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 12:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 12:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 12:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 12:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:40	05/21/21 12:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 12:37	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:40	05/21/21 12:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	05/21/21 08:40	05/21/21 12:37	1
1,4-Difluorobenzene (Surr)	114		70 - 130	05/21/21 08:40	05/21/21 12:37	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-3314/1-A

Matrix: Solid

Analysis Batch: 3318

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1137		mg/Kg		114	70 - 130
Toluene	0.100	0.1048		mg/Kg		105	70 - 130
Ethylbenzene	0.100	0.09652		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.1973		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09550		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: LCSD 880-3314/2-A

Matrix: Solid

Analysis Batch: 3318

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3314

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1187		mg/Kg		119	70 - 130	4	35
Toluene	0.100	0.1134		mg/Kg		113	70 - 130	8	35
Ethylbenzene	0.100	0.1035		mg/Kg		104	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2151		mg/Kg		108	70 - 130	9	35
o-Xylene	0.100	0.1029		mg/Kg		103	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	127		70 - 130

Lab Sample ID: MB 880-3316/5-A

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3316

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/21/21 23:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 08:47	05/21/21 23:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/21/21 23:20	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 08:47	05/21/21 23:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	05/21/21 08:47	05/21/21 23:20	1
1,4-Difluorobenzene (Surr)	94		70 - 130	05/21/21 08:47	05/21/21 23:20	1

Lab Sample ID: LCS 880-3316/1-A

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3316

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1045		mg/Kg		104	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-3316/1-A

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3316

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	0.100	0.09984		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1039		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.2192		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1108		mg/Kg		111	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3316/2-A

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3316

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1067		mg/Kg		107	70 - 130	2	35
Toluene	0.100	0.1019		mg/Kg		102	70 - 130	2	35
Ethylbenzene	0.100	0.1038		mg/Kg		104	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2181		mg/Kg		109	70 - 130	1	35
o-Xylene	0.100	0.1109		mg/Kg		111	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-707-10 MS

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: BH-10 (2')

Prep Type: Total/NA

Prep Batch: 3316

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.100	0.09339		mg/Kg		93	70 - 130
Toluene	<0.00200	U	0.100	0.09034		mg/Kg		90	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.09338		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.201	0.1944		mg/Kg		97	70 - 130
o-Xylene	<0.00200	U	0.100	0.09727		mg/Kg		97	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-707-10 MSD

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: BH-10 (2')

Prep Type: Total/NA

Prep Batch: 3316

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.09474		mg/Kg		96	70 - 130	1	35
Toluene	<0.00200	U	0.0990	0.09226		mg/Kg		93	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.0990	0.09360		mg/Kg		95	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1930		mg/Kg		97	70 - 130	1	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Lab Sample ID: 890-707-10 MSD

Matrix: Solid

Analysis Batch: 3317

Client Sample ID: BH-10 (2')

Prep Type: Total/NA

Prep Batch: 3316

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene	<0.00200	U	0.0990	0.09729		mg/Kg		98	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-3332/5-A

Matrix: Solid

Analysis Batch: 3336

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/21/21 09:47	05/22/21 05:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/21/21 09:47	05/22/21 05:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/21/21 09:47	05/22/21 05:08	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/21/21 09:47	05/22/21 05:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	05/21/21 09:47	05/22/21 05:08	1
1,4-Difluorobenzene (Surr)	85		70 - 130	05/21/21 09:47	05/22/21 05:08	1

Lab Sample ID: LCS 880-3332/1-A

Matrix: Solid

Analysis Batch: 3336

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1269		mg/Kg		127	70 - 130
Toluene	0.100	0.1162		mg/Kg		116	70 - 130
Ethylbenzene	0.100	0.1116		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2178		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-3332/2-A

Matrix: Solid

Analysis Batch: 3336

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3332

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1350	*+	mg/Kg		135	70 - 130	6	35
Toluene	0.100	0.1082		mg/Kg		108	70 - 130	7	35
Ethylbenzene	0.100	0.1021		mg/Kg		102	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1988		mg/Kg		99	70 - 130	9	35
o-Xylene	0.100	0.09510		mg/Kg		95	70 - 130	9	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-3357/1-A

Matrix: Solid

Analysis Batch: 3365

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3357

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 13:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 13:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 13:21	1
Total TPH	<50.0	U	50.0		mg/Kg		05/21/21 14:45	05/22/21 13:21	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	1	S1-	70 - 130	05/21/21 14:45	05/22/21 13:21	1
o-Terphenyl	2	S1-	70 - 130	05/21/21 14:45	05/22/21 13:21	1

Lab Sample ID: LCS 880-3357/2-A

Matrix: Solid

Analysis Batch: 3365

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3357

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1095		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1158		mg/Kg		116	70 - 130

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	109		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: LCSD 880-3357/3-A

Matrix: Solid

Analysis Batch: 3365

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3357

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	968.5		mg/Kg		97	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	1000	1126		mg/Kg		113	70 - 130	3	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	99		70 - 130
o-Terphenyl	95		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Lab Sample ID: 890-707-21 MS

Matrix: Solid

Analysis Batch: 3365

Client Sample ID: BH-21 (4.5')

Prep Type: Total/NA

Prep Batch: 3357

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	972.8		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1058		mg/Kg		106	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	98		70 - 130						
o-Terphenyl	87		70 - 130						

Lab Sample ID: 890-707-21 MSD

Matrix: Solid

Analysis Batch: 3365

Client Sample ID: BH-21 (4.5')

Prep Type: Total/NA

Prep Batch: 3357

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	996	937.5		mg/Kg		92	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1058		mg/Kg		106	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	95		70 - 130								
o-Terphenyl	86		70 - 130								

Lab Sample ID: MB 880-3408/1-A

Matrix: Solid

Analysis Batch: 3402

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 12:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 12:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 12:53	1
Total TPH	<50.0	U	50.0		mg/Kg		05/24/21 11:15	05/24/21 12:53	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	0.3	S1-	70 - 130				05/24/21 11:15	05/24/21 12:53	1
o-Terphenyl	0.6	S1-	70 - 130				05/24/21 11:15	05/24/21 12:53	1

Lab Sample ID: LCS 880-3408/2-A

Matrix: Solid

Analysis Batch: 3402

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	910.5		mg/Kg		91	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1060		mg/Kg		106	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-3408/2-A

Matrix: Solid

Analysis Batch: 3402

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3408

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	128		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: LCSD 880-3408/3-A

Matrix: Solid

Analysis Batch: 3402

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3408

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	893.4		mg/Kg		89	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1032		mg/Kg		103	70 - 130	3	20
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	123		70 - 130								
o-Terphenyl	98		70 - 130								

Lab Sample ID: 890-707-1 MS

Matrix: Solid

Analysis Batch: 3402

Client Sample ID: BH-1 (2')

Prep Type: Total/NA

Prep Batch: 3408

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	875.2		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	69.3		996	996.8		mg/Kg		93	70 - 130		
Surrogate		MS	MS								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	113		70 - 130								
o-Terphenyl	85		70 - 130								

Lab Sample ID: 890-707-1 MSD

Matrix: Solid

Analysis Batch: 3402

Client Sample ID: BH-1 (2')

Prep Type: Total/NA

Prep Batch: 3408

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	996	852.0		mg/Kg		86	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	69.3		996	993.6		mg/Kg		93	70 - 130	0	20
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	108		70 - 130								
o-Terphenyl	84		70 - 130								

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-3409/1-A

Matrix: Solid

Analysis Batch: 3406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3409

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/25/21 11:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/25/21 11:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/25/21 11:16	1
Total TPH	<50.0	U	50.0		mg/Kg		05/24/21 11:18	05/25/21 11:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	05/24/21 11:18	05/25/21 11:16	1
o-Terphenyl	106		70 - 130	05/24/21 11:18	05/25/21 11:16	1

Lab Sample ID: LCS 880-3409/2-A

Matrix: Solid

Analysis Batch: 3406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	933.1		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1011		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-3409/3-A

Matrix: Solid

Analysis Batch: 3406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3409

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1024		mg/Kg		102	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1069		mg/Kg		107	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 890-707-11 MS

Matrix: Solid

Analysis Batch: 3406

Client Sample ID: BH-11 (2')

Prep Type: Total/NA

Prep Batch: 3409

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	765.9		mg/Kg		75	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	878.2		mg/Kg		88	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

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

Lab Sample ID: 890-707-11 MS

Matrix: Solid

Analysis Batch: 3406

Client Sample ID: BH-11 (2')

Prep Type: Total/NA

Prep Batch: 3409

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 890-707-11 MSD

Matrix: Solid

Analysis Batch: 3406

Client Sample ID: BH-11 (2')

Prep Type: Total/NA

Prep Batch: 3409

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	996	808.0		mg/Kg		80	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	940.2		mg/Kg		94	70 - 130	7	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	88		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3421/1-A

Matrix: Solid

Analysis Batch: 3434

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/25/21 03:08	1

Lab Sample ID: LCS 880-3421/2-A

Matrix: Solid

Analysis Batch: 3434

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	241.9		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-3421/3-A

Matrix: Solid

Analysis Batch: 3434

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	241.7		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-707-1 MS

Matrix: Solid

Analysis Batch: 3434

Client Sample ID: BH-1 (2')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	192		251	434.8		mg/Kg		97	90 - 110

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-707-1 MSD

Matrix: Solid

Analysis Batch: 3434

Client Sample ID: BH-1 (2')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	192		251	435.5		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-707-11 MS

Matrix: Solid

Analysis Batch: 3434

Client Sample ID: BH-11 (2')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	56.3		250	308.7		mg/Kg		101	90 - 110		

Lab Sample ID: 890-707-11 MSD

Matrix: Solid

Analysis Batch: 3434

Client Sample ID: BH-11 (2')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	56.3		250	308.9		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-3422/1-A

Matrix: Solid

Analysis Batch: 3435

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/25/21 05:59	1

Lab Sample ID: LCS 880-3422/2-A

Matrix: Solid

Analysis Batch: 3435

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	250	243.3		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-3422/3-A

Matrix: Solid

Analysis Batch: 3435

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	243.2		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-707-26 MS

Matrix: Solid

Analysis Batch: 3435

Client Sample ID: SW-4 (2')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	35.1		253	292.6		mg/Kg		102	90 - 110		

Lab Sample ID: 890-707-26 MSD

Matrix: Solid

Analysis Batch: 3435

Client Sample ID: SW-4 (2')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	35.1		253	292.3		mg/Kg		102	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3944/1-A

Matrix: Solid

Analysis Batch: 3954

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			06/10/21 09:55	1

Lab Sample ID: LCS 880-3944/2-A

Matrix: Solid

Analysis Batch: 3954

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248.1		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-3944/3-A

Matrix: Solid

Analysis Batch: 3954

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	248.7		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

GC VOA

Prep Batch: 3312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3312/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 3313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3313/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 3314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-1	BH-1 (2')	Total/NA	Solid	5035	
890-707-2	BH-2 (2')	Total/NA	Solid	5035	
890-707-3	BH-3 (2')	Total/NA	Solid	5035	
890-707-4	BH-4 (2')	Total/NA	Solid	5035	
890-707-5	BH-5 (2')	Total/NA	Solid	5035	
890-707-6	BH-6 (2')	Total/NA	Solid	5035	
890-707-7	BH-7 (2')	Total/NA	Solid	5035	
890-707-8	BH-8 (2')	Total/NA	Solid	5035	
890-707-9	BH-9 (2')	Total/NA	Solid	5035	
MB 880-3314/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3314/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3314/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 3316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-10	BH-10 (2')	Total/NA	Solid	5035	
890-707-11	BH-11 (2')	Total/NA	Solid	5035	
890-707-12	BH-12 (2')	Total/NA	Solid	5035	
890-707-13	BH-13 (2')	Total/NA	Solid	5035	
890-707-14	BH-14 (3')	Total/NA	Solid	5035	
890-707-15	BH-15 (3')	Total/NA	Solid	5035	
890-707-16	BH-16 (3')	Total/NA	Solid	5035	
890-707-17	BH-17 (3')	Total/NA	Solid	5035	
890-707-18	BH-18 (3')	Total/NA	Solid	5035	
890-707-19	BH-19 (3')	Total/NA	Solid	5035	
890-707-20	BH-20 (3')	Total/NA	Solid	5035	
890-707-21	BH-21 (4.5')	Total/NA	Solid	5035	
890-707-22	BH-22 (4.5')	Total/NA	Solid	5035	
890-707-23	SW-1 (2')	Total/NA	Solid	5035	
890-707-24	SW-2 (2')	Total/NA	Solid	5035	
890-707-25	SW-3 (2')	Total/NA	Solid	5035	
890-707-26	SW-4 (2')	Total/NA	Solid	5035	
890-707-27	SW-5 (3')	Total/NA	Solid	5035	
890-707-28	SW-6 (4.5')	Total/NA	Solid	5035	
890-707-29	SW-7 (4.5')	Total/NA	Solid	5035	
MB 880-3316/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3316/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3316/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-707-10 MS	BH-10 (2')	Total/NA	Solid	5035	
890-707-10 MSD	BH-10 (2')	Total/NA	Solid	5035	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

GC VOA

Analysis Batch: 3317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-10	BH-10 (2')	Total/NA	Solid	8021B	3316
890-707-11	BH-11 (2')	Total/NA	Solid	8021B	3316
890-707-12	BH-12 (2')	Total/NA	Solid	8021B	3316
890-707-13	BH-13 (2')	Total/NA	Solid	8021B	3316
890-707-14	BH-14 (3')	Total/NA	Solid	8021B	3316
890-707-15	BH-15 (3')	Total/NA	Solid	8021B	3316
890-707-16	BH-16 (3')	Total/NA	Solid	8021B	3316
890-707-17	BH-17 (3')	Total/NA	Solid	8021B	3316
890-707-18	BH-18 (3')	Total/NA	Solid	8021B	3316
890-707-19	BH-19 (3')	Total/NA	Solid	8021B	3316
890-707-20	BH-20 (3')	Total/NA	Solid	8021B	3316
890-707-21	BH-21 (4.5')	Total/NA	Solid	8021B	3316
890-707-22	BH-22 (4.5')	Total/NA	Solid	8021B	3316
890-707-23	SW-1 (2')	Total/NA	Solid	8021B	3316
890-707-24	SW-2 (2')	Total/NA	Solid	8021B	3316
890-707-25	SW-3 (2')	Total/NA	Solid	8021B	3316
890-707-26	SW-4 (2')	Total/NA	Solid	8021B	3316
890-707-27	SW-5 (3')	Total/NA	Solid	8021B	3316
890-707-28	SW-6 (4.5')	Total/NA	Solid	8021B	3316
890-707-29	SW-7 (4.5')	Total/NA	Solid	8021B	3316
MB 880-3312/5-A	Method Blank	Total/NA	Solid	8021B	3312
MB 880-3316/5-A	Method Blank	Total/NA	Solid	8021B	3316
LCS 880-3316/1-A	Lab Control Sample	Total/NA	Solid	8021B	3316
LCSD 880-3316/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3316
890-707-10 MS	BH-10 (2')	Total/NA	Solid	8021B	3316
890-707-10 MSD	BH-10 (2')	Total/NA	Solid	8021B	3316

Analysis Batch: 3318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-1	BH-1 (2')	Total/NA	Solid	8021B	3314
890-707-2	BH-2 (2')	Total/NA	Solid	8021B	3314
890-707-3	BH-3 (2')	Total/NA	Solid	8021B	3314
890-707-4	BH-4 (2')	Total/NA	Solid	8021B	3314
890-707-5	BH-5 (2')	Total/NA	Solid	8021B	3314
890-707-6	BH-6 (2')	Total/NA	Solid	8021B	3314
890-707-7	BH-7 (2')	Total/NA	Solid	8021B	3314
890-707-8	BH-8 (2')	Total/NA	Solid	8021B	3314
890-707-9	BH-9 (2')	Total/NA	Solid	8021B	3314
MB 880-3314/5-A	Method Blank	Total/NA	Solid	8021B	3314
LCS 880-3314/1-A	Lab Control Sample	Total/NA	Solid	8021B	3314
LCSD 880-3314/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3314

Prep Batch: 3332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-30	SW-8 (4.5')	Total/NA	Solid	5035	
890-707-31	SW-9 (3')	Total/NA	Solid	5035	
890-707-32	SW-10 (4.5')	Total/NA	Solid	5035	
890-707-33	SW-11 (3')	Total/NA	Solid	5035	
MB 880-3332/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3332/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3332/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

GC VOA

Analysis Batch: 3336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-30	SW-8 (4.5')	Total/NA	Solid	8021B	3332
890-707-31	SW-9 (3')	Total/NA	Solid	8021B	3332
890-707-32	SW-10 (4.5')	Total/NA	Solid	8021B	3332
890-707-33	SW-11 (3')	Total/NA	Solid	8021B	3332
MB 880-3313/5-A	Method Blank	Total/NA	Solid	8021B	3313
MB 880-3332/5-A	Method Blank	Total/NA	Solid	8021B	3332
LCS 880-3332/1-A	Lab Control Sample	Total/NA	Solid	8021B	3332
LCSD 880-3332/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3332

GC Semi VOA

Prep Batch: 3357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-21	BH-21 (4.5')	Total/NA	Solid	8015NM Prep	
890-707-22	BH-22 (4.5')	Total/NA	Solid	8015NM Prep	
890-707-23	SW-1 (2')	Total/NA	Solid	8015NM Prep	
890-707-24	SW-2 (2')	Total/NA	Solid	8015NM Prep	
890-707-25	SW-3 (2')	Total/NA	Solid	8015NM Prep	
890-707-26	SW-4 (2')	Total/NA	Solid	8015NM Prep	
890-707-27	SW-5 (3')	Total/NA	Solid	8015NM Prep	
890-707-28	SW-6 (4.5')	Total/NA	Solid	8015NM Prep	
890-707-29	SW-7 (4.5')	Total/NA	Solid	8015NM Prep	
890-707-30	SW-8 (4.5')	Total/NA	Solid	8015NM Prep	
890-707-31	SW-9 (3')	Total/NA	Solid	8015NM Prep	
890-707-32	SW-10 (4.5')	Total/NA	Solid	8015NM Prep	
890-707-33	SW-11 (3')	Total/NA	Solid	8015NM Prep	
MB 880-3357/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3357/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3357/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-707-21 MS	BH-21 (4.5')	Total/NA	Solid	8015NM Prep	
890-707-21 MSD	BH-21 (4.5')	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-21	BH-21 (4.5')	Total/NA	Solid	8015B NM	3357
890-707-22	BH-22 (4.5')	Total/NA	Solid	8015B NM	3357
890-707-23	SW-1 (2')	Total/NA	Solid	8015B NM	3357
890-707-24	SW-2 (2')	Total/NA	Solid	8015B NM	3357
890-707-25	SW-3 (2')	Total/NA	Solid	8015B NM	3357
890-707-26	SW-4 (2')	Total/NA	Solid	8015B NM	3357
890-707-27	SW-5 (3')	Total/NA	Solid	8015B NM	3357
890-707-28	SW-6 (4.5')	Total/NA	Solid	8015B NM	3357
890-707-29	SW-7 (4.5')	Total/NA	Solid	8015B NM	3357
890-707-30	SW-8 (4.5')	Total/NA	Solid	8015B NM	3357
890-707-31	SW-9 (3')	Total/NA	Solid	8015B NM	3357
890-707-32	SW-10 (4.5')	Total/NA	Solid	8015B NM	3357
890-707-33	SW-11 (3')	Total/NA	Solid	8015B NM	3357
MB 880-3357/1-A	Method Blank	Total/NA	Solid	8015B NM	3357
LCS 880-3357/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3357
LCSD 880-3357/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3357
890-707-21 MS	BH-21 (4.5')	Total/NA	Solid	8015B NM	3357

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 3365 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-21 MSD	BH-21 (4.5')	Total/NA	Solid	8015B NM	3357

Analysis Batch: 3402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-1	BH-1 (2')	Total/NA	Solid	8015B NM	3408
890-707-2	BH-2 (2')	Total/NA	Solid	8015B NM	3408
890-707-3	BH-3 (2')	Total/NA	Solid	8015B NM	3408
890-707-4	BH-4 (2')	Total/NA	Solid	8015B NM	3408
890-707-5	BH-5 (2')	Total/NA	Solid	8015B NM	3408
890-707-6	BH-6 (2')	Total/NA	Solid	8015B NM	3408
890-707-7	BH-7 (2')	Total/NA	Solid	8015B NM	3408
890-707-8	BH-8 (2')	Total/NA	Solid	8015B NM	3408
890-707-9	BH-9 (2')	Total/NA	Solid	8015B NM	3408
890-707-10	BH-10 (2')	Total/NA	Solid	8015B NM	3408
MB 880-3408/1-A	Method Blank	Total/NA	Solid	8015B NM	3408
LCS 880-3408/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3408
LCSD 880-3408/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3408
890-707-1 MS	BH-1 (2')	Total/NA	Solid	8015B NM	3408
890-707-1 MSD	BH-1 (2')	Total/NA	Solid	8015B NM	3408

Analysis Batch: 3406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-11	BH-11 (2')	Total/NA	Solid	8015B NM	3409
890-707-12	BH-12 (2')	Total/NA	Solid	8015B NM	3409
890-707-13	BH-13 (2')	Total/NA	Solid	8015B NM	3409
890-707-14	BH-14 (3')	Total/NA	Solid	8015B NM	3409
890-707-15	BH-15 (3')	Total/NA	Solid	8015B NM	3409
890-707-16	BH-16 (3')	Total/NA	Solid	8015B NM	3409
890-707-17	BH-17 (3')	Total/NA	Solid	8015B NM	3409
890-707-18	BH-18 (3')	Total/NA	Solid	8015B NM	3409
890-707-19	BH-19 (3')	Total/NA	Solid	8015B NM	3409
890-707-20	BH-20 (3')	Total/NA	Solid	8015B NM	3409
MB 880-3409/1-A	Method Blank	Total/NA	Solid	8015B NM	3409
LCS 880-3409/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3409
LCSD 880-3409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3409
890-707-11 MS	BH-11 (2')	Total/NA	Solid	8015B NM	3409
890-707-11 MSD	BH-11 (2')	Total/NA	Solid	8015B NM	3409

Prep Batch: 3408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-1	BH-1 (2')	Total/NA	Solid	8015NM Prep	
890-707-2	BH-2 (2')	Total/NA	Solid	8015NM Prep	
890-707-3	BH-3 (2')	Total/NA	Solid	8015NM Prep	
890-707-4	BH-4 (2')	Total/NA	Solid	8015NM Prep	
890-707-5	BH-5 (2')	Total/NA	Solid	8015NM Prep	
890-707-6	BH-6 (2')	Total/NA	Solid	8015NM Prep	
890-707-7	BH-7 (2')	Total/NA	Solid	8015NM Prep	
890-707-8	BH-8 (2')	Total/NA	Solid	8015NM Prep	
890-707-9	BH-9 (2')	Total/NA	Solid	8015NM Prep	
890-707-10	BH-10 (2')	Total/NA	Solid	8015NM Prep	
MB 880-3408/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 3408 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-3408/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3408/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-707-1 MS	BH-1 (2')	Total/NA	Solid	8015NM Prep	
890-707-1 MSD	BH-1 (2')	Total/NA	Solid	8015NM Prep	

Prep Batch: 3409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-11	BH-11 (2')	Total/NA	Solid	8015NM Prep	
890-707-12	BH-12 (2')	Total/NA	Solid	8015NM Prep	
890-707-13	BH-13 (2')	Total/NA	Solid	8015NM Prep	
890-707-14	BH-14 (3')	Total/NA	Solid	8015NM Prep	
890-707-15	BH-15 (3')	Total/NA	Solid	8015NM Prep	
890-707-16	BH-16 (3')	Total/NA	Solid	8015NM Prep	
890-707-17	BH-17 (3')	Total/NA	Solid	8015NM Prep	
890-707-18	BH-18 (3')	Total/NA	Solid	8015NM Prep	
890-707-19	BH-19 (3')	Total/NA	Solid	8015NM Prep	
890-707-20	BH-20 (3')	Total/NA	Solid	8015NM Prep	
MB 880-3409/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3409/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-707-11 MS	BH-11 (2')	Total/NA	Solid	8015NM Prep	
890-707-11 MSD	BH-11 (2')	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-1	BH-1 (2')	Soluble	Solid	DI Leach	
890-707-2	BH-2 (2')	Soluble	Solid	DI Leach	
890-707-3	BH-3 (2')	Soluble	Solid	DI Leach	
890-707-4	BH-4 (2')	Soluble	Solid	DI Leach	
890-707-5	BH-5 (2')	Soluble	Solid	DI Leach	
890-707-6	BH-6 (2')	Soluble	Solid	DI Leach	
890-707-7	BH-7 (2')	Soluble	Solid	DI Leach	
890-707-8	BH-8 (2')	Soluble	Solid	DI Leach	
890-707-9	BH-9 (2')	Soluble	Solid	DI Leach	
890-707-10	BH-10 (2')	Soluble	Solid	DI Leach	
890-707-11	BH-11 (2')	Soluble	Solid	DI Leach	
890-707-12	BH-12 (2')	Soluble	Solid	DI Leach	
890-707-14	BH-14 (3')	Soluble	Solid	DI Leach	
890-707-15	BH-15 (3')	Soluble	Solid	DI Leach	
890-707-16	BH-16 (3')	Soluble	Solid	DI Leach	
890-707-17	BH-17 (3')	Soluble	Solid	DI Leach	
890-707-18	BH-18 (3')	Soluble	Solid	DI Leach	
890-707-19	BH-19 (3')	Soluble	Solid	DI Leach	
890-707-20	BH-20 (3')	Soluble	Solid	DI Leach	
MB 880-3421/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3421/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3421/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-707-1 MS	BH-1 (2')	Soluble	Solid	DI Leach	
890-707-1 MSD	BH-1 (2')	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 3421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-11 MS	BH-11 (2')	Soluble	Solid	DI Leach	
890-707-11 MSD	BH-11 (2')	Soluble	Solid	DI Leach	

Leach Batch: 3422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-21	BH-21 (4.5')	Soluble	Solid	DI Leach	
890-707-22	BH-22 (4.5')	Soluble	Solid	DI Leach	
890-707-23	SW-1 (2')	Soluble	Solid	DI Leach	
890-707-24	SW-2 (2')	Soluble	Solid	DI Leach	
890-707-25	SW-3 (2')	Soluble	Solid	DI Leach	
890-707-26	SW-4 (2')	Soluble	Solid	DI Leach	
890-707-27	SW-5 (3')	Soluble	Solid	DI Leach	
890-707-28	SW-6 (4.5')	Soluble	Solid	DI Leach	
890-707-29	SW-7 (4.5')	Soluble	Solid	DI Leach	
890-707-30	SW-8 (4.5')	Soluble	Solid	DI Leach	
890-707-31	SW-9 (3')	Soluble	Solid	DI Leach	
890-707-32	SW-10 (4.5')	Soluble	Solid	DI Leach	
890-707-33	SW-11 (3')	Soluble	Solid	DI Leach	
MB 880-3422/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3422/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3422/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-707-26 MS	SW-4 (2')	Soluble	Solid	DI Leach	
890-707-26 MSD	SW-4 (2')	Soluble	Solid	DI Leach	

Analysis Batch: 3434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-1	BH-1 (2')	Soluble	Solid	300.0	3421
890-707-2	BH-2 (2')	Soluble	Solid	300.0	3421
890-707-3	BH-3 (2')	Soluble	Solid	300.0	3421
890-707-4	BH-4 (2')	Soluble	Solid	300.0	3421
890-707-5	BH-5 (2')	Soluble	Solid	300.0	3421
890-707-6	BH-6 (2')	Soluble	Solid	300.0	3421
890-707-7	BH-7 (2')	Soluble	Solid	300.0	3421
890-707-8	BH-8 (2')	Soluble	Solid	300.0	3421
890-707-9	BH-9 (2')	Soluble	Solid	300.0	3421
890-707-10	BH-10 (2')	Soluble	Solid	300.0	3421
890-707-11	BH-11 (2')	Soluble	Solid	300.0	3421
890-707-12	BH-12 (2')	Soluble	Solid	300.0	3421
890-707-14	BH-14 (3')	Soluble	Solid	300.0	3421
890-707-15	BH-15 (3')	Soluble	Solid	300.0	3421
890-707-16	BH-16 (3')	Soluble	Solid	300.0	3421
890-707-17	BH-17 (3')	Soluble	Solid	300.0	3421
890-707-18	BH-18 (3')	Soluble	Solid	300.0	3421
890-707-19	BH-19 (3')	Soluble	Solid	300.0	3421
890-707-20	BH-20 (3')	Soluble	Solid	300.0	3421
MB 880-3421/1-A	Method Blank	Soluble	Solid	300.0	3421
LCS 880-3421/2-A	Lab Control Sample	Soluble	Solid	300.0	3421
LCSD 880-3421/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3421
890-707-1 MS	BH-1 (2')	Soluble	Solid	300.0	3421
890-707-1 MSD	BH-1 (2')	Soluble	Solid	300.0	3421
890-707-11 MS	BH-11 (2')	Soluble	Solid	300.0	3421

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

HPLC/IC (Continued)

Analysis Batch: 3434 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-11 MSD	BH-11 (2')	Soluble	Solid	300.0	3421

Analysis Batch: 3435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-21	BH-21 (4.5')	Soluble	Solid	300.0	3422
890-707-22	BH-22 (4.5')	Soluble	Solid	300.0	3422
890-707-23	SW-1 (2')	Soluble	Solid	300.0	3422
890-707-24	SW-2 (2')	Soluble	Solid	300.0	3422
890-707-25	SW-3 (2')	Soluble	Solid	300.0	3422
890-707-26	SW-4 (2')	Soluble	Solid	300.0	3422
890-707-27	SW-5 (3')	Soluble	Solid	300.0	3422
890-707-28	SW-6 (4.5')	Soluble	Solid	300.0	3422
890-707-29	SW-7 (4.5')	Soluble	Solid	300.0	3422
890-707-30	SW-8 (4.5')	Soluble	Solid	300.0	3422
890-707-31	SW-9 (3')	Soluble	Solid	300.0	3422
890-707-32	SW-10 (4.5')	Soluble	Solid	300.0	3422
890-707-33	SW-11 (3')	Soluble	Solid	300.0	3422
MB 880-3422/1-A	Method Blank	Soluble	Solid	300.0	3422
LCS 880-3422/2-A	Lab Control Sample	Soluble	Solid	300.0	3422
LCSD 880-3422/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3422
890-707-26 MS	SW-4 (2')	Soluble	Solid	300.0	3422
890-707-26 MSD	SW-4 (2')	Soluble	Solid	300.0	3422

Leach Batch: 3944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-13	BH-13 (2')	Soluble	Solid	DI Leach	
MB 880-3944/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3944/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3944/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-707-13	BH-13 (2')	Soluble	Solid	300.0	3944
MB 880-3944/1-A	Method Blank	Soluble	Solid	300.0	3944
LCS 880-3944/2-A	Lab Control Sample	Soluble	Solid	300.0	3944
LCSD 880-3944/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3944

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-1 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 17:50	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 14:18	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 03:22	CH	XEN MID

Client Sample ID: BH-2 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 18:11	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 15:21	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 03:37	CH	XEN MID

Client Sample ID: BH-3 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 18:31	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 15:42	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 03:42	CH	XEN MID

Client Sample ID: BH-4 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 18:52	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 16:04	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 03:47	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-5 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 19:13	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 16:25	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 03:52	CH	XEN MID

Client Sample ID: BH-6 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 19:33	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 16:46	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 04:06	CH	XEN MID

Client Sample ID: BH-7 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 19:54	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 17:07	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 04:11	CH	XEN MID

Client Sample ID: BH-8 (2')

Date Collected: 05/19/21 00:00

Date Received: 05/20/21 15:17

Lab Sample ID: 890-707-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 20:15	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 17:28	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 04:16	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-9 (2')

Lab Sample ID: 890-707-9

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3314	05/21/21 08:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3318	05/21/21 20:36	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 17:49	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 04:21	CH	XEN MID

Client Sample ID: BH-10 (2')

Lab Sample ID: 890-707-10

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/21/21 23:42	KL	XEN MID
Total/NA	Prep	8015NM Prep			3408	05/24/21 11:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3402	05/24/21 18:10	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 04:26	CH	XEN MID

Client Sample ID: BH-11 (2')

Lab Sample ID: 890-707-11

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 00:02	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 14:18	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 04:31	CH	XEN MID

Client Sample ID: BH-12 (2')

Lab Sample ID: 890-707-12

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 00:23	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 15:21	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 04:45	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-13 (2')

Lab Sample ID: 890-707-13

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 00:43	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 15:42	AM	XEN MID
Soluble	Leach	DI Leach			3944	06/09/21 16:11	CH	XEN MID
Soluble	Analysis	300.0		1	3954	06/10/21 12:12	CH	XEN MID

Client Sample ID: BH-14 (3')

Lab Sample ID: 890-707-14

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 01:04	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 16:04	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 05:05	CH	XEN MID

Client Sample ID: BH-15 (3')

Lab Sample ID: 890-707-15

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 01:24	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 16:25	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 05:10	CH	XEN MID

Client Sample ID: BH-16 (3')

Lab Sample ID: 890-707-16

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 01:44	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 16:46	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 05:15	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-17 (3')

Lab Sample ID: 890-707-17

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 02:05	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 17:07	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 05:20	CH	XEN MID

Client Sample ID: BH-18 (3')

Lab Sample ID: 890-707-18

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 02:25	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 17:28	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 05:25	CH	XEN MID

Client Sample ID: BH-19 (3')

Lab Sample ID: 890-707-19

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 02:46	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 17:49	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 05:29	CH	XEN MID

Client Sample ID: BH-20 (3')

Lab Sample ID: 890-707-20

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 14:54	KL	XEN MID
Total/NA	Prep	8015NM Prep			3409	05/24/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3406	05/24/21 18:10	AM	XEN MID
Soluble	Leach	DI Leach			3421	05/24/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1	3434	05/25/21 05:34	CH	XEN MID

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Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: BH-21 (4.5')

Lab Sample ID: 890-707-21

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 15:14	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 06:57	CH	XEN MID

Client Sample ID: BH-22 (4.5')

Lab Sample ID: 890-707-22

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 15:35	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 16:49	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:02	CH	XEN MID

Client Sample ID: SW-1 (2')

Lab Sample ID: 890-707-23

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 15:55	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 17:11	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:07	CH	XEN MID

Client Sample ID: SW-2 (2')

Lab Sample ID: 890-707-24

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 16:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 17:32	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:12	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-3 (2')

Lab Sample ID: 890-707-25

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 16:36	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 17:54	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:17	CH	XEN MID

Client Sample ID: SW-4 (2')

Lab Sample ID: 890-707-26

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 16:56	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 18:16	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:22	CH	XEN MID

Client Sample ID: SW-5 (3')

Lab Sample ID: 890-707-27

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 17:17	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 18:37	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:36	CH	XEN MID

Client Sample ID: SW-6 (4.5')

Lab Sample ID: 890-707-28

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 17:37	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 18:59	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:41	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-7 (4.5')

Lab Sample ID: 890-707-29

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3316	05/21/21 08:47	KL	XEN MID
Total/NA	Analysis	8021B		1	3317	05/22/21 17:58	KL	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 19:20	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 07:56	CH	XEN MID

Client Sample ID: SW-8 (4.5')

Lab Sample ID: 890-707-30

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 12:02	MR	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 19:42	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 08:01	CH	XEN MID

Client Sample ID: SW-9 (3')

Lab Sample ID: 890-707-31

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 12:29	MR	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 20:25	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 08:06	CH	XEN MID

Client Sample ID: SW-10 (4.5')

Lab Sample ID: 890-707-32

Date Collected: 05/19/21 00:00

Matrix: Solid

Date Received: 05/20/21 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 12:55	MR	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 20:47	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:37	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 08:11	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Client Sample ID: SW-11 (3')**Lab Sample ID: 890-707-33****Date Collected: 05/19/21 00:00****Matrix: Solid****Date Received: 05/20/21 15:17**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3332	05/21/21 15:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3336	05/22/21 13:20	MR	XEN MID
Total/NA	Prep	8015NM Prep			3357	05/21/21 14:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3365	05/22/21 21:08	AJ	XEN MID
Soluble	Leach	DI Leach			3422	05/24/21 13:41	SC	XEN MID
Soluble	Analysis	300.0		1	3435	05/25/21 08:16	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: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Eurofins Xenco, Carlsbad

Method Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
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

Eurofins Xenco, Carlsbad

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Jackson Pipeline Release

Job ID: 890-707-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-707-1	BH-1 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-2	BH-2 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-3	BH-3 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-4	BH-4 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-5	BH-5 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-6	BH-6 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-7	BH-7 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-8	BH-8 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-9	BH-9 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-10	BH-10 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-11	BH-11 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-12	BH-12 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-13	BH-13 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-14	BH-14 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-15	BH-15 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-16	BH-16 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-17	BH-17 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-18	BH-18 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-19	BH-19 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-20	BH-20 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-21	BH-21 (4.5')	Solid	05/19/21 00:00	05/20/21 15:17	- 4.5
890-707-22	BH-22 (4.5')	Solid	05/19/21 00:00	05/20/21 15:17	- 4.5
890-707-23	SW-1 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-24	SW-2 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-25	SW-3 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-26	SW-4 (2')	Solid	05/19/21 00:00	05/20/21 15:17	- 2
890-707-27	SW-5 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-28	SW-6 (4.5')	Solid	05/19/21 00:00	05/20/21 15:17	- 4.5
890-707-29	SW-7 (4.5')	Solid	05/19/21 00:00	05/20/21 15:17	- 4.5
890-707-30	SW-8 (4.5')	Solid	05/19/21 00:00	05/20/21 15:17	- 4.5
890-707-31	SW-9 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3
890-707-32	SW-10 (4.5')	Solid	05/19/21 00:00	05/20/21 15:17	- 4.5
890-707-33	SW-11 (3')	Solid	05/19/21 00:00	05/20/21 15:17	- 3

Eurofins Xenco, Carlsbad

Page 1 of 4



890-707 Chain of Custody

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.



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

Client Name: EOG Resources		Site Manager: Brittany Long	
Project Name: Jackson Pipeline Release		Project #: 212C-MD-02329	
Project Location: Lea County, New Mexico			
Invoice to: EOG - Todd Wells		Sampler Signature: <i>Todd Wells</i>	
Receiving Laboratory: Xenco/Eurofins			
Comments:			

LAB #	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		DATE	TIME		WATER	SOIL	HCL	HNO ₃		
	BH-1 (2')	5/19/2021		X	X			X		
	BH-2 (2')	5/19/2021		X	X			X		
	BH-3 (3')	5/19/2021		X	X			X		
	BH-4 (2')	5/19/2021		X	X			X		
	BH-5 (2')	5/19/2021		X	X			X		
	BH-6 (2')	5/19/2021		X	X			X		
	BH-7 (2')	5/19/2021		X	X			X		
	BH-8 (2')	5/19/2021		X	X			X		
	BH-9 (2')	5/19/2021		X	X			X		
	BH-10 (2')	5/19/2021		X	X			X		

LAB USE ONLY	REMARKS:	STANDARD ☐ RUSH: ☒ Same Day 24 hr 48 hr 72 hr	Special Report Limits or TRRP Report ☐

Relinquished by: <i>Todd Wells</i>	Date: 5-20-21	Time: 13:00
Relinquished by:	Date:	Time:
Relinquished by:	Date:	Time:

ORIGINAL COPY

Tetra Tech, Inc.

Fax (432) 682-3946

ORIGINAL COPY

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

Client Name: EOG Resources		Site Manager: Brittany Long	
Project Name: Jackson Pipeline Release		Project #: 212C-MD-02329	
Project Location: Lea County, New Mexico			
Invoice to: EOG - Todd Wells		Sampler Signature: <i>Todd Wells</i>	
Receiving Laboratory: Xenco/Eurofins			
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		DATE	TIME		WATER	SOIL	HCL	HNO ₃		
	BH-21 (4.5')	5/19/2021		X				X		
	BH-22 (4.5')	5/19/2021		X				X		
	SW-1 (2')	5/19/2021		X				X		
	SW-2 (2')	5/19/2021		X				X		
	SW-3 (2')	5/19/2021		X				X		
	SW-4 (2')	5/19/2021		X				X		
	SW-5 (3')	5/19/2021		X				X		
	SW-6 (4.5')	5/19/2021		X				X		
	SW-7 (4.5')	5/19/2021		X				X		
	SW-8 (4.5')	5/19/2021		X				X		

LAB USE ONLY	Relinquished by: <i>Todd Wells</i>		Date: 5/20/21	Time: 13:00
	Relinquished by:		Date:	Time:
REMARKS:	Relinquished by:		Date:	Time:
	Relinquished by:		Date:	Time:

☐ STANDARD ☒ RUSH: Same Day 24 hr 48 hr 72 hr ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report	LAB USE ONLY Sample Temperature 22/2.0
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ANALYSIS REQUEST (Circle or Specify Method No.)	TPC 8021B BTEX 82608 TPC 8015M (EXT to C35) TPC 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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ORIGINAL COPY



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

ANALYSIS REQUEST
(Circle or Specify Method No.)

Paul Newman

[illegible]

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

2.2/2.0

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Eurofins Xenco, Carlsbad

1089 N Canal St
Carlsbad, NM 88220

Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



eurofins

Environment Testing
America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No.							
Client Contact:		Phone	Kramer, Jessica		890-230 1							
Shipping/Receiving		E-Mail	jessica.kramer@eurofins.com	State of Origin	Page 1 of 4							
Company	Eurofins Xenco	Accreditations Required (See note)	NE LAP - Louisiana, NE LAP - Texas		Job #:							
Address	1211 W Florida Ave.	Due Date Requested	5/25/2021		890-707-1							
City	Midland	TAT Requested (days)		Analysis Requested								
State Zip	TX, 79701											
Phone:	432-704-5440(Tel)	PO #										
Email		WO #										
Project Name:	Jackson Pipeline Release	Project #	88000013									
Site:		SSOW#										
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=oil, B=biomass, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8016NM_S_Prep (MOD) Full TPH GRO-DRO-MRO	8021B/6035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
BH-1 (890-707-1)		5/19/21	Mountain		Solid		X	X	X	1		
BH-2 (890-707-2)		5/19/21	Mountain		Solid		X	X	X	1		
BH-3 (890-707-3)		5/19/21	Mountain		Solid		X	X	X	1		
BH-4 (890-707-4)		5/19/21	Mountain		Solid		X	X	X	1		
BH-5 (890-707-5)		5/19/21	Mountain		Solid		X	X	X	1		
BH-6 (890-707-6)		5/19/21	Mountain		Solid		X	X	X	1		
BH-7 (890-707-7)		5/19/21	Mountain		Solid		X	X	X	1		
BH-8 (890-707-8)		5/19/21	Mountain		Solid		X	X	X	1		
BH-9 (890-707-9)		5/19/21	Mountain		Solid		X	X	X	1		
Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.												
Possible Hazard Identification		☐ Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months										
Unconfirmed												
Deliverable Requested I, II, III, IV Other (specify)		Primary Deliverable Rank, 2										
Empty Kit Relinquished by		Date	Time									
Relinquished by: <i>Clae Gabe</i>		Date/Time:		Company	Received by:	Date/Time:		Company	Received by:	Date/Time:		
Relinquished by:		Date/Time:		Company	Received by:	Date/Time:		Company	Received by:	Date/Time:		
Custody Seals Intact:		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks.								
Δ Yes Δ No												

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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

Client Information (Sub Contract Lab)				Sampler	Lab PM	Carrier Tracking No(s)	COC No:							
Client Contact: Shipping/Receiving				Phone	Kramer Jessica		890-230 3							
Company: Eurofins Xenco				E-Mail: jessica.kramer@eurofinsnet.com			Page 3 of 4							
Address: 1211 W Florida Ave				Due Date Requested: 5/25/2021	Accreditations Required (See note) NELAP - Louisiana NELAP - Texas		Job #: 890-707-1							
City: Midland				TAT Requested (days)	Analysis Requested									
State, Zip: TX 79701														
Phone: 432-704-5440(Tel)				PO #:										
Email:				WO #:										
Project Name: Jackson Pipeline Release				Project #:										
Site:				SSOW#:										
Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFm_28D/DI_LEACH Chloride	8016MOD_NM/8016NM_S_Prep (MOD) Full TPH GRO-DRO-MRO	8021B/6036FP_Calc BTEX	Total Number of containers	Special Instructions/Note
BH-19 (890-707-19)				5/19/21	Mountain		Solid		X	X	X	X	1	
BH-20 (890-707-20)				5/19/21	Mountain		Solid		X	X	X	X	1	
BH-21 (890-707-21)				5/19/21	Mountain		Solid		X	X	X	X	1	
BH-22 (890-707-22)				5/19/21	Mountain		Solid		X	X	X	X	1	
SW-1 (890-707-23)				5/19/21	Mountain		Solid		X	X	X	X	1	
SW-2 (890-707-24)				5/19/21	Mountain		Solid		X	X	X	X	1	
SW-3 (890-707-25)				5/19/21	Mountain		Solid		X	X	X	X	1	
SW-4 (890-707-26)				5/19/21	Mountain		Solid		X	X	X	X	1	
SW-5 (890-707-27)				5/19/21	Mountain		Solid		X	X	X	X	1	

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

Possible Hazard Identification
Unconfirmed
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months

Relinquished by	Date/Time	Company	Time	Method of Shipment	Date/Time	Company
Relinquished by: <i>Cee Corp</i>	5-21-21				5-21-21 130PM	
Relinquished by:	Date/Time:	Company:			Date/Time:	Company:
Relinquished by:	Date/Time:	Company:			Date/Time:	Company:

Custody Seals Intact: ☐ Yes ☐ No Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-707-1

SDG Number: Lea County NM

Login Number: 707**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: 890-707-1

SDG Number: Lea County NM

Login Number: 707**List Number: 2****Creator: Copeland, Tatiana****List Source: Eurofins Xenco, Midland****List Creation: 05/21/21 01:26 PM**

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

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 41510

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 41510
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	9/14/2021