

SITE INFORMATION

Report Type: Closure Report/Incident ID#NRM2029341496

General Site Information:

Site:	Osprey 10 #601 Transfer Line					
Company:	EOG Resources					
Section, Township and Range	Unit I	Sec. 8	T 25S	R 34E		
County:	Lea County					
GPS:	32.144339			-103.486971		

Release Data:

Date Released:	10/5/2020
Type Release:	Poly Line Release
Source of Contamination:	Produced Water
Fluid Released:	5 bbls PW
Fluids Recovered:	1 bbls PW

Official Communication:

Name:	Todd Wells		Clair Gonzales
Company:	EOG Resources		Tetra Tech
Address:	5509 Champions Dr		901 West Wall Street
			Suite 100
City:	Midland Texas, 79706		Midland, Texas
Phone number:	432-686-3667		(432) 682-4559
Fax:			
Email:	Todd_Wells@eogresources.com		Clair.Gonzales@tetrattech.com

Site Characterization

Depth to Groundwater:	174' below surface
Karst Potential:	low

Recommended Remedial Action Levels (RRALs)

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

**TETRA TECH**

February 23, 2021

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

Re: Closure Report for the EOG Resources, Osprey 10-601 Transfer Line, Unit I, Section 8, Township 25 South, Range 34 East, Lea County, New Mexico. NRM2029341496

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, Osprey 10-601 Transfer Line, Unit I, Section 8, Township 25 South, Range 34 East, Lea County, New Mexico (Site). The site coordinates are 32.144339°, -103.486971°. 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 October 5, 2020, and released approximately 5 barrels of produced water due to a leaking polyline. Approximately 1 barrel of the produced water was recovered. The release occurred along a lease road and impacted areas measuring approximately 475' x 65'. The C-141 form is included in Appendix A.

Site Characterization

A site characterization was performed for the site, and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. Additionally, the site is in a low karst potential area. The nearest well is listed in the USGS National Water Information Database website in Section 25, approximately 2.28 miles Southeast of the site, and has a reported depth to groundwater of 174.06 feet below ground surface. Site characterization data is included in Appendix B.

Tetra Tech

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

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com

**TETRA TECH**

Regulatory

A risk-based evaluation was performed for the site 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). The proposed RRAL for TPH is 100 mg/kg (GRO+DRO+MRO) based upon the site characterization. Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.

Soil Assessment and Analytical Results

On October 14, 2020, Tetra Tech installed eight (8) Auger Holes (AH-1 through AH-8) at total depths ranging from surface to 4.5' below surface, to vertically delineate the impacted soil. Additionally, nine (9) horizontal samples (H-1 through H-9) were collected. Select samples were submitted to the laboratory to be analyzed for TPH method 8015 extended, BTEX method 8021B, and Chloride by EPA Method 300.0. The sample results are summarized in Table 1. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C.

Referring to Table 1, none of the samples analyzed showed benzene, total BTEX, or TPH concentrations above the laboratory reporting limits. However, chloride concentrations were detected above RRALs. The areas of auger holes (AH-1 through AH-4) showed chloride concentrations of 1,720 mg/kg, 1,470 mg/kg, 7,560 mg/kg, and 667 mg/kg, respectively, at depths ranging from surface to 3.5' below surface. The areas of auger holes (AH-5, AH-6, AH-7, and AH-8) showed chloride concentrations below 600 mg/kg.

Remediation Activities

Based on the site assessment results, Tetra Tech personnel were onsite on November 9, 2020, to supervise the remediation activities and collect confirmation samples. The impacted areas were excavated to a total depth ranging from 1.5'- 4.0' below surface, as shown on Figure 4 and Table 2.

A total of seventeen (17) bottom hole (Bottom Hole 1 through Bottom Hole 17) and fourteen sidewall samples (SW1 through SW14) were collected every 200 square feet to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 extended, 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 C. The excavation depths and sample locations are shown in Figure 4.

Referring to Table 2, all final confirmation samples collected showed benzene, total BTEX, and TPH concentrations below the laboratory reporting limits. Additionally, all final samples showed chloride concentrations below the 600 mg/kg threshold.

Approximately 350 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.



TETRA TECH

Conclusion

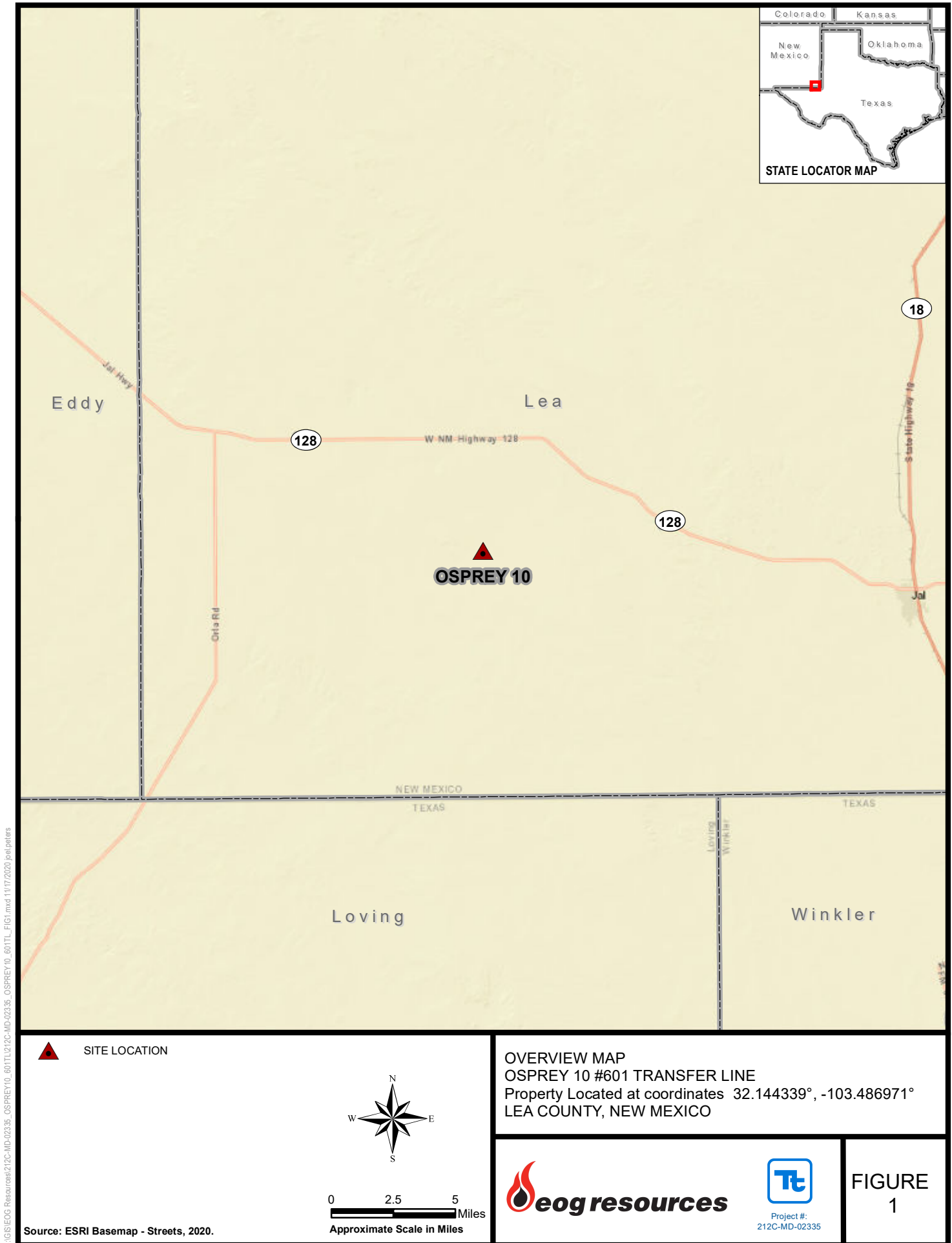
Based on the laboratory results and remediation activities performed, EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

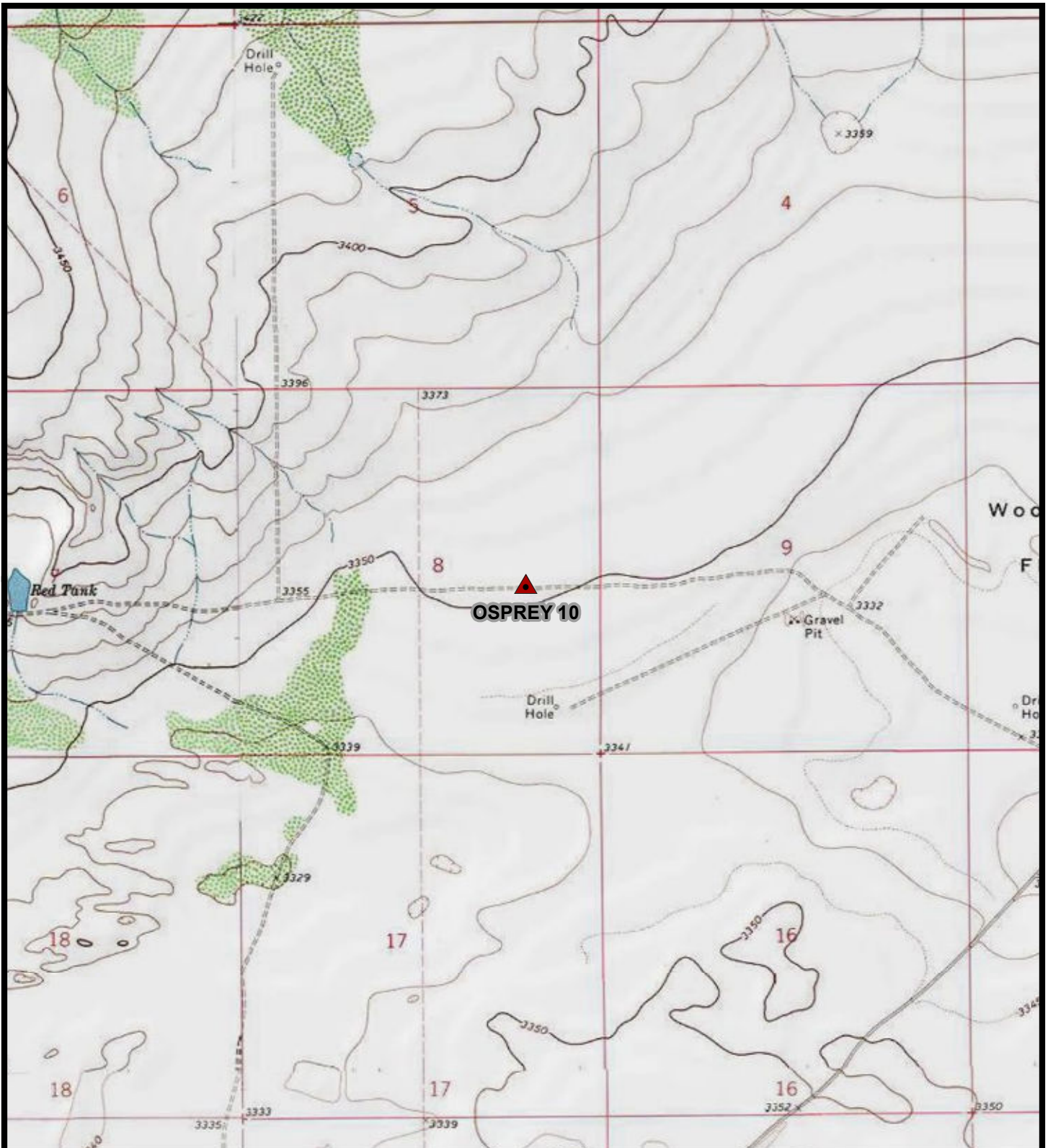
Respectfully submitted,
TETRA TECH



Clair Gonzales,
Project Manager

Figures





 SITE LOCATION



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

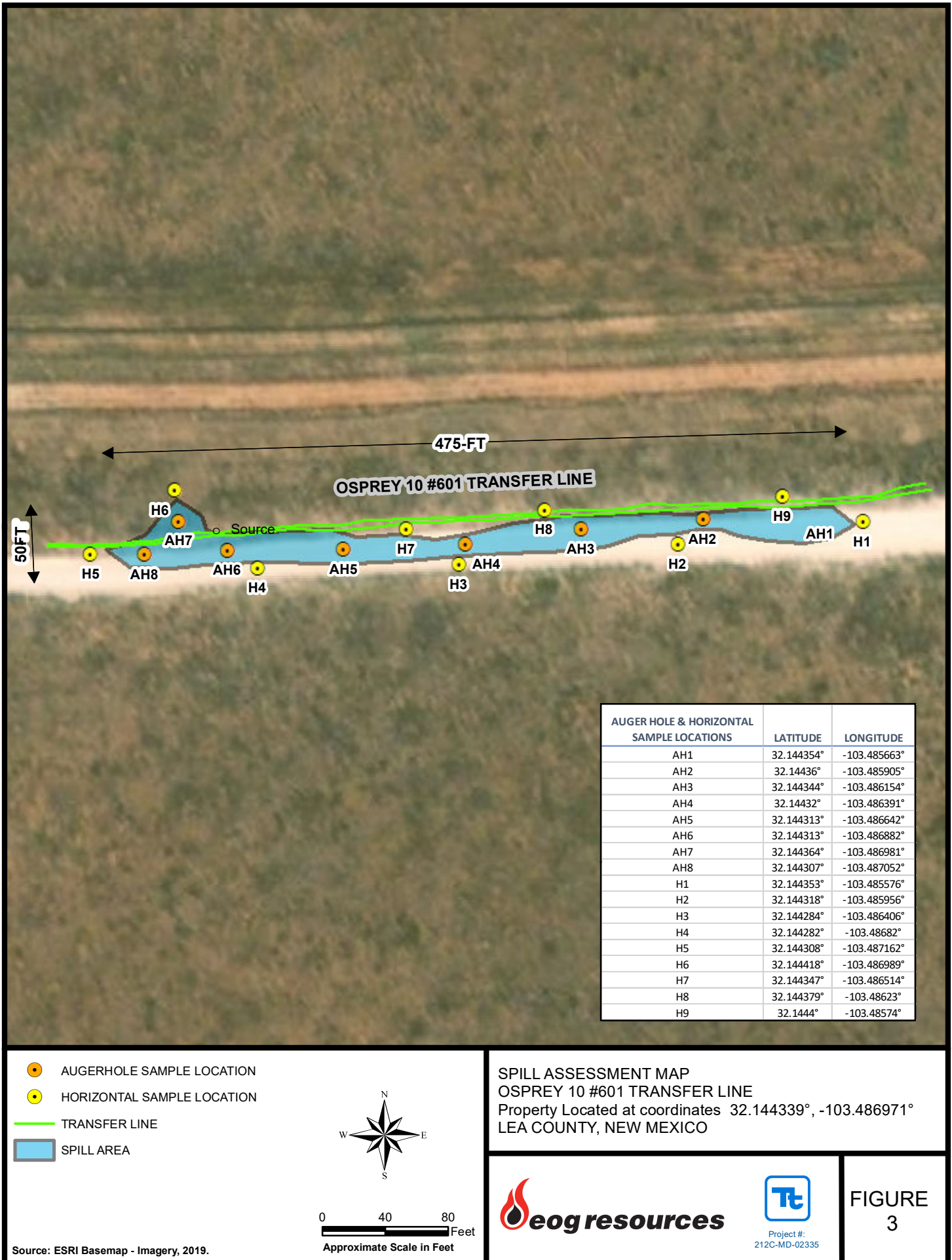
Source: National Geographic Society, i-cubed,
USA Topo Maps, 2013.

TOPOGRAPHIC MAP
OSPREY 10 #601 TRANSFER LINE
Property Located at coordinates 32.144339°, -103.486971°
LEA COUNTY, NEW MEXICO



Project #:
212C-MD-02335

FIGURE
2





Tables

Table 1
EOG
Osprey 10 #601 Transfer Line
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						
AH-1	10/14/2020	0-1		X	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	1,720
	"	1-1.5		X	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	200
	"	2-2.5		X	-	-	-	-	-	-	-	-	-	611
AH-2	10/14/2020	0-1		X	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	1,470
	"	1-1.5		X	<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	19.9
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	173
AH-3	10/14/2020	0-1		X	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	7,560
	"	1-1.5		X	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	182
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	562
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	598
	"	4-4.5	X		-	-	-	-	-	-	-	-	-	201
AH-4	10/14/2020	0-1		X	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	222
	"	1-1.5		X	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	250
	"	2-2.5		X	-	-	-	-	-	-	-	-	-	581
	"	3-3.5		X	-	-	-	-	-	-	-	-	-	667
	"	4-4.5		X	-	-	-	-	-	-	-	-	-	315
AH-5	10/14/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	381
	"	1-1.5	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	390
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	428
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	322
	"	4-4.5	X		-	-	-	-	-	-	-	-	-	161
AH-6	10/14/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	448
	"	1-1.5	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	194
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	453
	"	3-3.5	X		-	-	-	-	-	-	-	-	-	495
	"	4-4.5	X		-	-	-	-	-	-	-	-	-	452
AH-7	10/14/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	21.5
	"	1-1.5	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	28.6
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	111
AH-8	10/14/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	90.4
	"	1-1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	111
	"	2-2.5	X		-	-	-	-	-	-	-	-	-	283

Table 1
EOG
Osprey 10 #601 Transfer Line
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						
Horizontal-1	10/14/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	127
Horizontal-2	10/14/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	56.7
Horizontal-3	10/14/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	12.1
Horizontal-4	10/14/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	11.8
Horizontal-5	10/14/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	106
Horizontal-6	10/14/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<5.05
Horizontal-7	10/14/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<5.05
Horizontal-8	10/14/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<4.98
Horizontal-9	10/14/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<4.96

(-)

Not Analyzed
Removed

Table 2
EOG
Osprey 10 #601 Transfer Line
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Bottom Hole-1	11/9/2020	4	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	213
Bottom Hole-2	11/9/2020	4	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	209
Bottom Hole-3	11/9/2020	4	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	187
Bottom Hole-4	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	142
Bottom Hole-5	11/9/2020	1.5	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	130
Bottom Hole-6	11/9/2020	1.5	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	137
Bottom Hole-7	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	133
Bottom Hole-8	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	192
Bottom Hole-9	11/9/2020	1.5	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	191
Bottom Hole-10	11/9/2020	1.5	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	62.7
Bottom Hole-11	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	57.6
Bottom Hole-12	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	60.1
Bottom Hole-13	11/9/2020	1.5	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	84.4
Bottom Hole-14	11/9/2020	1.5	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	80.6
Bottom Hole-15	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	123
Bottom Hole-16	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	138
Bottom Hole-17	11/9/2020	1.5	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	151

Table 2
EOG
Osprey 10 #601 Transfer Line
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						
Sidewall-1	11/9/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	187
Sidewall-2	11/9/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	221
Sidewall-3	11/9/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	185
Sidewall-4	11/9/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	212
Sidewall-5	11/9/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	186
Sidewall-6	11/9/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	190
Sidewall-7	11/9/2020	-	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	187
Sidewall-8	11/9/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	78.0
Sidewall-9	11/9/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	82.0
Sidewall-10	11/9/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	80.3
Sidewall-11	11/9/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	151
Sidewall-12	11/9/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	137
Sidewall-13	11/9/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	137
Sidewall-14	11/9/2020	-	X		<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	142

(-) Not Analyzed

Photos

EOG Resources
Osprey 10 #601 Transfer Line
Lea County, New Mexico



TETRA TECH



View East, areas of Auger Holes (1-8)



View West, areas of Auger Holes (1-8)

EOG Resources
Osprey 10 #601 Transfer Line
Lea County, New Mexico



View East, areas of Bottom Holes (1-3)



View Southwest, areas of Bottom Holes (4-14)

EOG Resources
Osprey 10 #601 Transfer Line
Lea County, New Mexico



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View East, areas of Bottom Holes (7-17)

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	NRM2029341496
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 32.144339°

Longitude -103.486971°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Osprey 10 #601H Transfer Line	Site Type Poly Transfer Line
Date Release Discovered 10/5/20	API# (if applicable) 30-025-41816

Unit Letter	Section	Township	Range	County
I	8	25S	34E	Lea

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 1
	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: While moving the poly line out of the lease road, the line parted where the sections were fused together. Approximately 5 bbls of produced water was released on the side and down the lease road and 1 bbl recovered.

Incident ID	NRM2029341496
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>10-16-20</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>10/19/2020</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: Cristina Eads Date: 02/24/2021

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: Cristina Eads Date: 06/28/2021

Printed Name: Cristina Eads Title: Environmental Specialist

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
EOG - Osprey 10-601 Transfer Line
Lea County, New Mexico

24 South			33 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

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

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

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

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

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

26 South			35 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

- 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



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02299		CUB	LE	4	2	4	24	25S	34E	649517	3554125	350	300	50
C 02314		CUB	LE	2	4	2	15	25S	34E	646116	3556179	175	135	40
C 02315		CUB	LE	2	4	2	15	25S	34E	646095	3556194	175	135	40
C 02316		CUB	LE	3	4	3	29	25S	34E	642003	3551967*	100	50	50
C 02317		CUB	LE	3	4	3	29	25S	34E	642003	3551967*	100	50	50
C 02401		CUB	LE	2	2	1	01	25S	34E	648534	3559896*	275	260	15

Average Depth to Water: **155 feet**

Minimum Depth: **50 feet**

Maximum Depth: **300 feet**

Record Count: 6

PLSS Search:

Township: 25S

Range: 34E

*UTM location was derived from PLSS - see Help

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

10/20/20 6:23 PM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



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

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

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 320738103270501

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 320738103270501 25S.34E.15.24234

Lea County, New Mexico
Latitude 32°07'57.1", Longitude 103°27'02.4" NAD83
Land-surface elevation 3,345.00 feet above NGVD29
This well is completed in the Ogallala Formation (121OGLL) 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
1954-07-23			D 164.94				2 S		U		A
1970-12-08			D 163.22				2 S		U		A
1976-01-15			D 165.80				2		U		A
1981-03-25			D 162.80				2		U		A
1986-03-12			D 160.24				2		U		A
1991-06-05			D 165.10				2		U		A
2013-01-16	14:30 MST	m	174.06				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	R	Site had been pumped recently.
Status	S	Nearby site that taps the same aquifer was being pumped.
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](#)
[Data Tips](#)
[Explanation of terms](#)
[Subscribe for system changes](#)
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[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for New Mexico: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>

Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2020-11-19 16:39:38 EST

0.28 0.26 nadww01



Low Karst

EOG Resources
Tumbling Dice CTB Osprey 10-601 Transfer Line

Legend

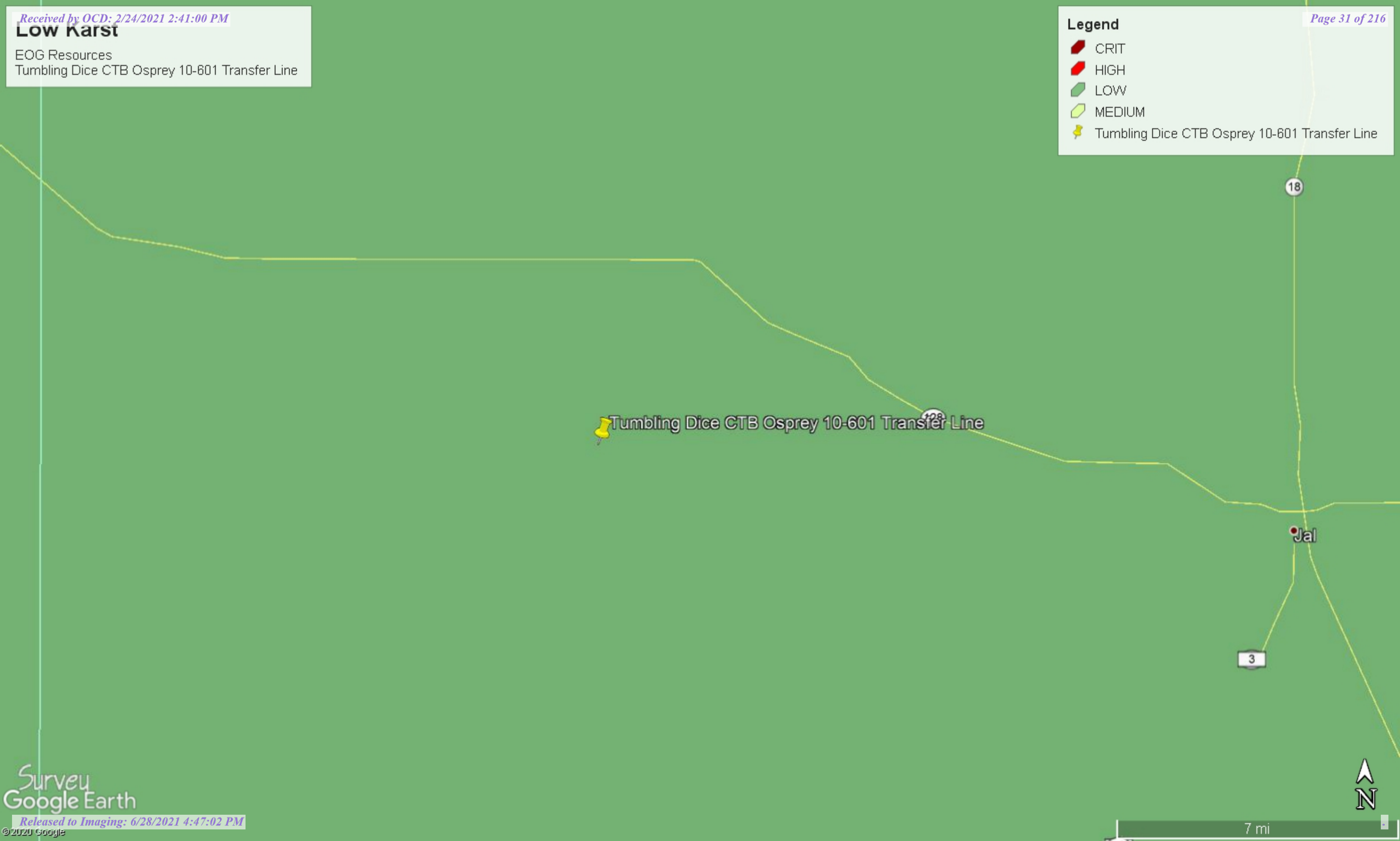
 CRIT

 HIGH

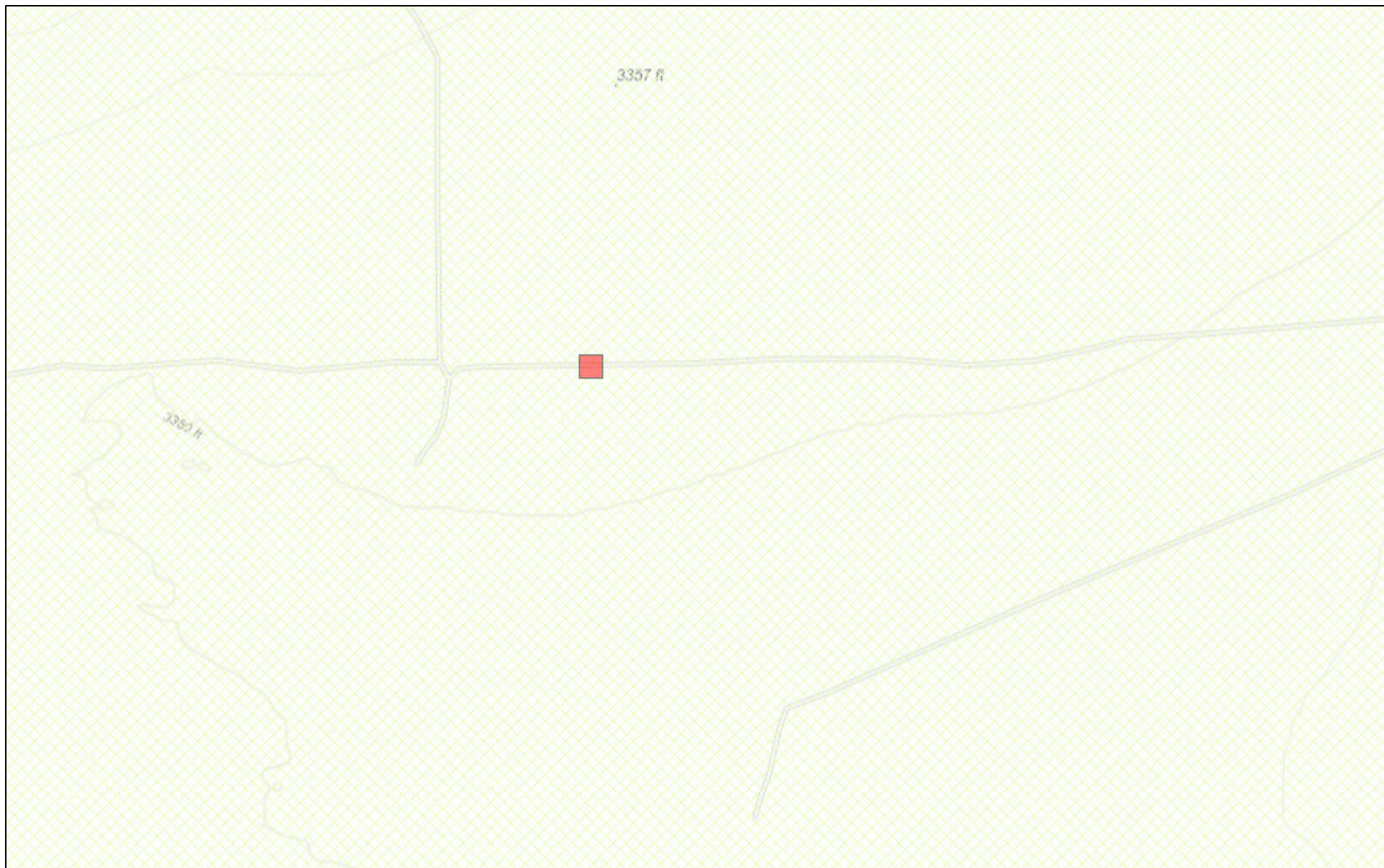
 LOW

 MEDIUM

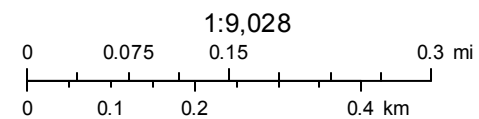
 Tumbling Dice CTB Osprey 10-601 Transfer Line



New Mexico NFHL Data



October 20, 2020



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

Appendix C

Analytical Report 675340

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Tumbling Dice CTB Osprey 10-601 Transfer Line

212C-MD-02335

10.21.2020

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)

Certificate of Analysis Summary 675340

Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 10.15.2020 16:37

Report Date: 10.21.2020 13:35

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	675340-001	675340-002	675340-003	675340-004	675340-005	675340-006
	<i>Field Id:</i>	AH #1 (0-1')	AH #1 (1-1.5')	AH #1 (2-2.5)	AH #2 (0-1')	AH #2 (1-1.5')	AH #2 (2-2.5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	10.16.2020 17:00	10.16.2020 17:00		10.16.2020 17:00	10.16.2020 17:00	
	<i>Analyzed:</i>	10.17.2020 03:54	10.17.2020 04:14		10.17.2020 04:35	10.17.2020 04:56	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL		mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00202 0.00202		<0.00199 0.00199	<0.00202 0.00202	
Toluene		<0.00200 0.00200	<0.00202 0.00202		<0.00199 0.00199	<0.00202 0.00202	
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202		<0.00199 0.00199	<0.00202 0.00202	
m,p-Xylenes		<0.00401 0.00401	<0.00403 0.00403		<0.00398 0.00398	<0.00404 0.00404	
o-Xylene		<0.00200 0.00200	<0.00202 0.00202		<0.00199 0.00199	<0.00202 0.00202	
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202		<0.00199 0.00199	<0.00202 0.00202	
Total BTEX		<0.00200 0.00200	<0.00202 0.00202		<0.00199 0.00199	<0.00202 0.00202	
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30
	<i>Analyzed:</i>	10.19.2020 11:14	10.19.2020 11:21	10.19.2020 11:27	10.19.2020 11:33	10.19.2020 11:52	10.19.2020 11:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1720 25.0	200 5.02	611 4.98	1470 25.3	19.9 5.05	173 4.98
TPH By SW8015 Mod	<i>Extracted:</i>	10.17.2020 09:00	10.17.2020 09:00		10.17.2020 09:00	10.17.2020 09:00	
	<i>Analyzed:</i>	10.17.2020 18:52	10.17.2020 19:50		10.17.2020 20:09	10.17.2020 20:28	
	<i>Units/RL:</i>	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	<49.8 49.8	
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0		<49.9 49.9	<49.8 49.8	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0		<49.9 49.9	<49.8 49.8	
Total TPH		<49.9 49.9	<50.0 50.0		<49.9 49.9	<49.8 49.8	

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 675340

Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Date Received in Lab: Thu 10.15.2020 16:37

Contact: Mike Carmona

Report Date: 10.21.2020 13:35

Project Location: Lea Co, NM

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	675340-007	675340-008	675340-009	675340-010	675340-011	675340-012
	<i>Field Id:</i>	AH #3 (0-1')	AH #3 1-1.5')	AH #3 (2-2.5')	AH #3 (3-3.5')	AH #3 (4-4.5')	AH #4 (0-1')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	10.16.2020 17:00	10.16.2020 17:00				10.17.2020 08:00
	<i>Analyzed:</i>	10.17.2020 05:16	10.17.2020 05:37				10.17.2020 15:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200				<0.00201 0.00201
Toluene		<0.00199 0.00199	<0.00200 0.00200				<0.00201 0.00201
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200				<0.00201 0.00201
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399				<0.00402 0.00402
o-Xylene		<0.00199 0.00199	<0.00200 0.00200				<0.00201 0.00201
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200				<0.00201 0.00201
Total BTEX		<0.00199 0.00199	<0.00200 0.00200				<0.00201 0.00201
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30	10.19.2020 10:30
	<i>Analyzed:</i>	10.19.2020 12:05	10.19.2020 12:11	10.19.2020 12:18	10.19.2020 12:24	10.19.2020 12:43	10.19.2020 12:49
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		7560 50.0	182 5.04	562 5.05	598 5.05	201 4.95	222 4.97
TPH By SW8015 Mod	<i>Extracted:</i>	10.17.2020 09:00	10.17.2020 09:00				10.17.2020 09:00
	<i>Analyzed:</i>	10.17.2020 20:47	10.17.2020 21:07				10.17.2020 21:26
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0				<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0				<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0				<49.9 49.9
Total TPH		<50.0 50.0	<50.0 50.0				<49.9 49.9

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 675340

Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Date Received in Lab: Thu 10.15.2020 16:37

Contact: Mike Carmona

Report Date: 10.21.2020 13:35

Project Location: Lea Co, NM

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	675340-013 AH #4 (1-1.5') SOIL 10.14.2020 00:00	675340-014 AH #4 (2-2.5') SOIL 10.14.2020 00:00	675340-015 AH #4 (3-3.5') SOIL 10.14.2020 00:00	675340-016 AH #4 (4-4.5') SOIL 10.14.2020 00:00	675340-017 AH #5 (0-1') SOIL 10.14.2020 00:00	675340-018 AH #5 (1-1.5') SOIL 10.14.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	10.17.2020 08:00 10.17.2020 16:13 mg/kg RL				10.17.2020 08:00 10.17.2020 16:33 mg/kg RL	10.19.2020 10:30 10.19.2020 12:47 mg/kg RL
Benzene		<0.00200 0.00200				<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200				<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200				<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401				<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00200 0.00200				<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200				<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200				<0.00200 0.00200	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	10.19.2020 10:30 10.19.2020 13:08 mg/kg RL	10.19.2020 10:30 10.19.2020 13:15 mg/kg RL	10.19.2020 10:30 10.19.2020 13:21 mg/kg RL	10.19.2020 10:30 10.19.2020 13:28 mg/kg RL	10.19.2020 10:30 10.19.2020 13:34 mg/kg RL	10.19.2020 10:30 10.19.2020 13:40 mg/kg RL
Chloride		250 4.99	581 5.02	667 4.96	315 5.04	381 4.98	390 5.00
TPH By SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	10.17.2020 09:00 10.17.2020 21:45 mg/kg RL				10.17.2020 09:00 10.17.2020 22:04 mg/kg RL	10.17.2020 09:00 10.17.2020 22:24 mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0				<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0				<49.8 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0				<49.8 49.8	<49.9 49.9
Total TPH		<50.0 50.0				<49.8 49.8	<49.9 49.9

BRL - Below Reporting Limit

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Certificate of Analysis Summary 675340

Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 10.15.2020 16:37

Report Date: 10.21.2020 13:35

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	675340-019 AH #5 (2-2.5') SOIL 10.14.2020 00:00	675340-020 AH #5 (3-3.5') SOIL 10.14.2020 00:00	675340-021 AH #5 (4-4.5') SOIL 10.14.2020 00:00	675340-022 AH #6 (0-1') SOIL 10.14.2020 00:00	675340-023 AH #6 (1-1.5') SOIL 10.14.2020 00:00	675340-024 AH #6 (2-2.5') SOIL 10.14.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>				10.17.2020 08:00 10.17.2020 17:15 mg/kg RL	10.17.2020 08:00 10.17.2020 17:57 mg/kg RL	
Benzene					<0.00202 0.00202	<0.00200 0.00200	
Toluene					<0.00202 0.00202	<0.00200 0.00200	
Ethylbenzene					<0.00202 0.00202	<0.00200 0.00200	
m,p-Xylenes					<0.00404 0.00404	<0.00401 0.00401	
o-Xylene					<0.00202 0.00202	<0.00200 0.00200	
Total Xylenes					<0.00202 0.00202	<0.00200 0.00200	
Total BTEX					<0.00202 0.00202	<0.00200 0.00200	
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	10.19.2020 10:30 10.19.2020 13:47 mg/kg RL	10.19.2020 11:10 10.19.2020 11:41 mg/kg RL	10.19.2020 11:10 10.19.2020 11:57 mg/kg RL	10.19.2020 11:10 10.19.2020 12:02 mg/kg RL	10.19.2020 11:10 10.19.2020 12:08 mg/kg RL	10.19.2020 11:10 10.19.2020 12:13 mg/kg RL
Chloride		428 5.00	322 5.05	161 4.98	448 5.04	194 4.95	453 5.03
TPH By SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>				10.17.2020 09:00 10.17.2020 23:02 mg/kg RL	10.17.2020 09:00 10.17.2020 23:21 mg/kg RL	
Gasoline Range Hydrocarbons (GRO)					<49.9 49.9	<49.8 49.8	
Diesel Range Organics (DRO)					<49.9 49.9	<49.8 49.8	
Motor Oil Range Hydrocarbons (MRO)					<49.9 49.9	<49.8 49.8	
Total TPH					<49.9 49.9	<49.8 49.8	

BRL - Below Reporting Limit

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Certificate of Analysis Summary 675340

Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 10.15.2020 16:37

Report Date: 10.21.2020 13:35

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	675340-025	675340-026	675340-027	675340-028	675340-029	675340-030
	<i>Field Id:</i>	AH #6 (3-3.5')	AH #6 (4-4.5')	AH #7(0-1')	AH #7 (1-1.5')	AH #7 (2-2.5')	AH #8 (0-1')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>			10.17.2020 08:00	10.19.2020 16:15		10.17.2020 08:00
	<i>Analyzed:</i>			10.17.2020 17:36	10.19.2020 18:08		10.17.2020 18:17
	<i>Units/RL:</i>			mg/kg RL	mg/kg RL		mg/kg RL
Benzene				<0.00200 0.00200	<0.00200 0.00200		<0.00200 0.00200
Toluene				<0.00200 0.00200	<0.00200 0.00200		<0.00200 0.00200
Ethylbenzene				<0.00200 0.00200	<0.00200 0.00200		<0.00200 0.00200
m,p-Xylenes				<0.00401 0.00401	<0.00399 0.00399		<0.00401 0.00401
o-Xylene				<0.00200 0.00200	<0.00200 0.00200		<0.00200 0.00200
Total Xylenes				<0.00200 0.00200	<0.00200 0.00200		<0.00200 0.00200
Total BTEX				<0.00200 0.00200	<0.00200 0.00200		<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	10.19.2020 11:10	10.19.2020 11:10	10.19.2020 11:10	10.19.2020 11:10	10.19.2020 11:10	10.19.2020 11:10
	<i>Analyzed:</i>	10.19.2020 12:29	10.19.2020 12:34	10.19.2020 12:39	10.19.2020 12:45	10.19.2020 12:50	10.19.2020 12:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		495 5.00	452 4.98	21.5 4.95	28.6 5.04	111 4.96	90.4 5.00
TPH By SW8015 Mod	<i>Extracted:</i>			10.17.2020 09:00	10.17.2020 09:00		10.17.2020 09:00
	<i>Analyzed:</i>			10.17.2020 23:40	10.17.2020 23:59		10.18.2020 00:18
	<i>Units/RL:</i>			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
Diesel Range Organics (DRO)				<50.0 50.0	<49.8 49.8		<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)				<50.0 50.0	<49.8 49.8		<50.0 50.0
Total TPH				<50.0 50.0	<49.8 49.8		<50.0 50.0

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Certificate of Analysis Summary 675340

Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Date Received in Lab: Thu 10.15.2020 16:37

Contact: Mike Carmona

Report Date: 10.21.2020 13:35

Project Location: Lea Co, NM

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 675340-031 Field Id: AH #8 (1-1.5') Depth: Matrix: SOIL Sampled: 10.14.2020 00:00	Lab Id: 675340-032 Field Id: AH #8 (2-2.5') Depth: Matrix: SOIL Sampled: 10.14.2020 00:00				
BTEX by EPA 8021B	Extracted: 10.17.2020 12:15 Analyzed: 10.18.2020 12:19 Units/RL: mg/kg RL					
Benzene	<0.00198 0.00198					
Toluene	<0.00198 0.00198					
Ethylbenzene	<0.00198 0.00198					
m,p-Xylenes	<0.00397 0.00397					
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	Extracted: 10.19.2020 11:10 Analyzed: 10.19.2020 13:11 Units/RL: mg/kg RL	Lab Id: 10.19.2020 11:10 Analyzed: 10.19.2020 13:16 Units/RL: mg/kg RL				
Chloride	111 5.03	283 4.98				
TPH By SW8015 Mod	Extracted: 10.17.2020 09:00 Analyzed: 10.18.2020 00:37 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0					
Diesel Range Organics (DRO)	<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0					
Total TPH	<50.0 50.0					

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10.21.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **675340**

Tumbling Dice CTB Osprey 10-601 Transfer Line

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) 675340. 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. 675340 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

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Sample Cross Reference 675340

Tetra Tech- Midland, Midland, TX

Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH #1 (0-1')	S	10.14.2020 00:00		675340-001
AH #1 (1-1.5')	S	10.14.2020 00:00		675340-002
AH #1 (2-2.5')	S	10.14.2020 00:00		675340-003
AH #2 (0-1')	S	10.14.2020 00:00		675340-004
AH #2 (1-1.5')	S	10.14.2020 00:00		675340-005
AH #2 (2-2.5')	S	10.14.2020 00:00		675340-006
AH #3 (0-1')	S	10.14.2020 00:00		675340-007
AH #3 1-1.5')	S	10.14.2020 00:00		675340-008
AH #3 (2-2.5')	S	10.14.2020 00:00		675340-009
AH #3 (3-3.5')	S	10.14.2020 00:00		675340-010
AH #3 (4-4.5')	S	10.14.2020 00:00		675340-011
AH #4 (0-1')	S	10.14.2020 00:00		675340-012
AH #4 (1-1.5')	S	10.14.2020 00:00		675340-013
AH #4 (2-2.5')	S	10.14.2020 00:00		675340-014
AH #4 (3-3.5')	S	10.14.2020 00:00		675340-015
AH #4 (4-4.5')	S	10.14.2020 00:00		675340-016
AH #5 (0-1')	S	10.14.2020 00:00		675340-017
AH #5 (1-1.5')	S	10.14.2020 00:00		675340-018
AH #5 (2-2.5')	S	10.14.2020 00:00		675340-019
AH #5 (3-3.5')	S	10.14.2020 00:00		675340-020
AH #5 (4-4.5')	S	10.14.2020 00:00		675340-021
AH #6 (0-1')	S	10.14.2020 00:00		675340-022
AH #6 (1-1.5')	S	10.14.2020 00:00		675340-023
AH #6 (2-2.5')	S	10.14.2020 00:00		675340-024
AH #6 (3-3.5')	S	10.14.2020 00:00		675340-025
AH #6 (4-4.5')	S	10.14.2020 00:00		675340-026
AH #7(0-1')	S	10.14.2020 00:00		675340-027
AH #7 (1-1.5')	S	10.14.2020 00:00		675340-028
AH #7 (2-2.5')	S	10.14.2020 00:00		675340-029
AH #8 (0-1')	S	10.14.2020 00:00		675340-030
AH #8 (1-1.5')	S	10.14.2020 00:00		675340-031
AH #8 (2-2.5')	S	10.14.2020 00:00		675340-032

**CASE NARRATIVE****Client Name: Tetra Tech- Midland****Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line**

Project ID: 212C-MD-02335
Work Order Number(s): 675340

Report Date: 10.21.2020
Date Received: 10.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3139967 BTEX by EPA 8021B

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

Samples affected are: 675138-001 S.

Batch: LBA-3140073 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7713548-1-BKS, 675340-028 S.



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #1 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-001 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1720	25.0	mg/kg	10.19.2020 11:14		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 18:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 18:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 18:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 18:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-130	10.17.2020 18:52		
o-Terphenyl	84-15-1	102	%	70-130	10.17.2020 18:52		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #1 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-001

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 03:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 03:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 03:54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.17.2020 03:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 03:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 03:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 03:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.17.2020 03:54		
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.17.2020 03:54		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #1 (1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-002 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	200	5.02	mg/kg	10.19.2020 11:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 19:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 19:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 19:50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 19:50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	86	%	70-130	10.17.2020 19:50		
o-Terphenyl	84-15-1	99	%	70-130	10.17.2020 19:50		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #1 (1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-002

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.17.2020 04:14	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.17.2020 04:14	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.17.2020 04:14	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.17.2020 04:14	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.17.2020 04:14	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.17.2020 04:14	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.17.2020 04:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.17.2020 04:14		
4-Bromofluorobenzene	460-00-4	89	%	70-130	10.17.2020 04:14		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer LineSample Id: **AH #1 (2-2.5)**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-003

Date Collected: 10.14.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 10.19.2020 10:30

% Moisture:

Seq Number: 3140087

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	611	4.98	mg/kg	10.19.2020 11:27		1



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #2 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-004 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1470	25.3	mg/kg	10.19.2020 11:33		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 20:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 20:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 20:09	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 20:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	85	%	70-130	10.17.2020 20:09		
o-Terphenyl	84-15-1	97	%	70-130	10.17.2020 20:09		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #2 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-004

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.17.2020 04:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.17.2020 04:35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.17.2020 04:35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.17.2020 04:35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.17.2020 04:35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.17.2020 04:35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.17.2020 04:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.17.2020 04:35		
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.17.2020 04:35		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #2 (1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-005 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.9	5.05	mg/kg	10.19.2020 11:52		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.17.2020 20:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.17.2020 20:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.17.2020 20:28	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.17.2020 20:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	85	%	70-130	10.17.2020 20:28		
o-Terphenyl	84-15-1	92	%	70-130	10.17.2020 20:28		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #2 (1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-005

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.17.2020 04:56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.17.2020 04:56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.17.2020 04:56	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.17.2020 04:56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.17.2020 04:56	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.17.2020 04:56	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.17.2020 04:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.17.2020 04:56		
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.17.2020 04:56		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #2 (2-2.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-006 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	173	4.98	mg/kg	10.19.2020 11:59		1



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #3 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-007 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7560	50.0	mg/kg	10.19.2020 12:05		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 20:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 20:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 20:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 20:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	10.17.2020 20:47	
o-Terphenyl	84-15-1	94	%	70-130	10.17.2020 20:47	



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #3 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-007

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.17.2020 05:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.17.2020 05:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.17.2020 05:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.17.2020 05:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.17.2020 05:16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.17.2020 05:16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.17.2020 05:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	10.17.2020 05:16		
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.17.2020 05:16		



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #3 1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-008 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	182	5.04	mg/kg	10.19.2020 12:11		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 21:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 21:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 21:07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 21:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	83	%	70-130	10.17.2020 21:07		
o-Terphenyl	84-15-1	91	%	70-130	10.17.2020 21:07		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #3 1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-008

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 05:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 05:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 05:37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.17.2020 05:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 05:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 05:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 05:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.17.2020 05:37		
4-Bromofluorobenzene	460-00-4	127	%	70-130	10.17.2020 05:37		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #3 (2-2.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-009 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	562	5.05	mg/kg	10.19.2020 12:18		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #3 (3-3.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-010 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	598	5.05	mg/kg	10.19.2020 12:24		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #3 (4-4.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-011 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	201	4.95	mg/kg	10.19.2020 12:43		1



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #4 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-012 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	222	4.97	mg/kg	10.19.2020 12:49		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 21:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 21:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 21:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 21:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	84	%	70-130	10.17.2020 21:26		
o-Terphenyl	84-15-1	93	%	70-130	10.17.2020 21:26		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #4 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-012

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 08:00

% Moisture:

Seq Number: 3139967

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.17.2020 15:52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.17.2020 15:52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.17.2020 15:52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.17.2020 15:52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.17.2020 15:52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.17.2020 15:52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.17.2020 15:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	10.17.2020 15:52		
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.17.2020 15:52		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #4 (1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-013 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	250	4.99	mg/kg	10.19.2020 13:08		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 21:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 21:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 21:45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 21:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	84	%	70-130	10.17.2020 21:45		
o-Terphenyl	84-15-1	92	%	70-130	10.17.2020 21:45		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #4 (1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-013

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 08:00

% Moisture:

Seq Number: 3139967

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 16:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 16:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 16:13	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.17.2020 16:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 16:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 16:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 16:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.17.2020 16:13		
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.17.2020 16:13		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #4 (2-2.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-014 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	581	5.02	mg/kg	10.19.2020 13:15		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #4 (3-3.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-015 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	667	4.96	mg/kg	10.19.2020 13:21		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #4 (4-4.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-016 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	315	5.04	mg/kg	10.19.2020 13:28		1



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #5 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-017 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	381	4.98	mg/kg	10.19.2020 13:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.17.2020 22:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.17.2020 22:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.17.2020 22:04	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.17.2020 22:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	84	%	70-130	10.17.2020 22:04		
o-Terphenyl	84-15-1	93	%	70-130	10.17.2020 22:04		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #5 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-017

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 08:00

% Moisture:

Seq Number: 3139967

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 16:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 16:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 16:33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.17.2020 16:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 16:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 16:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 16:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.17.2020 16:33		
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.17.2020 16:33		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #5 (1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-018 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	390	5.00	mg/kg	10.19.2020 13:40		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 22:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 22:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 22:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 22:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	85	%	70-130	10.17.2020 22:24		
o-Terphenyl	84-15-1	93	%	70-130	10.17.2020 22:24		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #5 (1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-018

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.19.2020 10:30

% Moisture:

Seq Number: 3140074

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.19.2020 12:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.19.2020 12:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.19.2020 12:47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.19.2020 12:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.19.2020 12:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.19.2020 12:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.19.2020 12:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.19.2020 12:47		
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.19.2020 12:47		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #5 (2-2.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-019 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	428	5.00	mg/kg	10.19.2020 13:47		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #5 (3-3.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-020 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	322	5.05	mg/kg	10.19.2020 11:41		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #5 (4-4.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-021 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	161	4.98	mg/kg	10.19.2020 11:57		1



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #6 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-022 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
 Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	448	5.04	mg/kg	10.19.2020 12:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 23:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 23:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 23:02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 23:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	85	%	70-130	10.17.2020 23:02		
o-Terphenyl	84-15-1	95	%	70-130	10.17.2020 23:02		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #6 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-022

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 08:00

% Moisture:

Seq Number: 3139967

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.17.2020 17:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.17.2020 17:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.17.2020 17:15	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.17.2020 17:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.17.2020 17:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.17.2020 17:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.17.2020 17:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	130	%	70-130	10.17.2020 17:15		
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.17.2020 17:15		



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #6 (1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-023 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
 Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	194	4.95	mg/kg	10.19.2020 12:08		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.17.2020 23:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.17.2020 23:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.17.2020 23:21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.17.2020 23:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-130	10.17.2020 23:21		
o-Terphenyl	84-15-1	97	%	70-130	10.17.2020 23:21		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #6 (1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-023

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 08:00

% Moisture:

Seq Number: 3139967

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 17:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 17:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 17:57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.17.2020 17:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 17:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 17:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 17:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	84	%	70-130	10.17.2020 17:57		
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.17.2020 17:57		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #6 (2-2.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-024 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	453	5.03	mg/kg	10.19.2020 12:13		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #6 (3-3.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-025 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	495	5.00	mg/kg	10.19.2020 12:29		1

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #6 (4-4.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-026 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	452	4.98	mg/kg	10.19.2020 12:34		1



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #7(0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-027 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
 Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.5	4.95	mg/kg	10.19.2020 12:39		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 23:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 23:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 23:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 23:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	10.17.2020 23:40	
o-Terphenyl	84-15-1	89	%	70-130	10.17.2020 23:40	



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #7(0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-027

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 08:00

% Moisture:

Seq Number: 3139967

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 17:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 17:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 17:36	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.17.2020 17:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 17:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 17:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 17:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.17.2020 17:36		
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.17.2020 17:36		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #7 (1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-028 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
 Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.6	5.04	mg/kg	10.19.2020 12:45		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.17.2020 23:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.17.2020 23:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.17.2020 23:59	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.17.2020 23:59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	84	%	70-130	10.17.2020 23:59		
o-Terphenyl	84-15-1	91	%	70-130	10.17.2020 23:59		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #7 (1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-028

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.19.2020 16:15

% Moisture:

Seq Number: 3140073

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.19.2020 18:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.19.2020 18:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.19.2020 18:08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.19.2020 18:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.19.2020 18:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.19.2020 18:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.19.2020 18:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.19.2020 18:08		
1,4-Difluorobenzene	540-36-3	88	%	70-130	10.19.2020 18:08		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #7 (2-2.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-029 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	4.96	mg/kg	10.19.2020 12:50		1



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #8 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-030 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
 Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.4	5.00	mg/kg	10.19.2020 12:55		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.18.2020 00:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.18.2020 00:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.18.2020 00:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.18.2020 00:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-130	10.18.2020 00:18		
o-Terphenyl	84-15-1	108	%	70-130	10.18.2020 00:18		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #8 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-030

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 08:00

% Moisture:

Seq Number: 3139967

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 18:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 18:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 18:17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.17.2020 18:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 18:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 18:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 18:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.17.2020 18:17		
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.17.2020 18:17		



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #8 (1-1.5')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675340-031 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
 Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	5.03	mg/kg	10.19.2020 13:11		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 09:00 % Moisture:
 Seq Number: 3140005 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.18.2020 00:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.18.2020 00:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.18.2020 00:37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.18.2020 00:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-130	10.18.2020 00:37	
o-Terphenyl	84-15-1	94	%	70-130	10.18.2020 00:37	



Certificate of Analytical Results 675340

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #8 (1-1.5')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675340-031

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 12:15

% Moisture:

Seq Number: 3139978

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.18.2020 12:19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.18.2020 12:19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.18.2020 12:19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.18.2020 12:19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.18.2020 12:19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.18.2020 12:19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.18.2020 12:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	10.18.2020 12:19		
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.18.2020 12:19		

**Certificate of Analytical Results 675340****Tetra Tech- Midland, Midland, TX**
Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **AH #8 (2-2.5')** Matrix: Soil Date Received: 10.15.2020 16:37
Lab Sample Id: 675340-032 Date Collected: 10.14.2020 00:00
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Tech: CHE
Analyst: CHE Date Prep: 10.19.2020 11:10 % Moisture:
Seq Number: 3140089 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	283	4.98	mg/kg	10.19.2020 13:16		1

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

Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140087

Matrix: Solid

Prep Method: E300P

Date Prep: 10.19.2020

MB Sample Id: 7713492-1-BLK

LCS Sample Id: 7713492-1-BKS

LCSD Sample Id: 7713492-1-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	257	103	257	103	90-110	0	20	mg/kg	10.19.2020 10:42	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140089

Matrix: Solid

Prep Method: E300P

Date Prep: 10.19.2020

MB Sample Id: 7713493-1-BLK

LCS Sample Id: 7713493-1-BKS

LCSD Sample Id: 7713493-1-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	249	100	254	102	90-110	2	20	mg/kg	10.19.2020 11:31	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140087

Matrix: Soil

Prep Method: E300P

Date Prep: 10.19.2020

Parent Sample Id: 675338-009

MS Sample Id: 675338-009 S

MSD Sample Id: 675338-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.96	248	256	103	256	103	90-110	0	20	mg/kg	10.19.2020 11:02	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140087

Matrix: Soil

Prep Method: E300P

Date Prep: 10.19.2020

Parent Sample Id: 675340-010

MS Sample Id: 675340-010 S

MSD Sample Id: 675340-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	598	253	839	95	838	95	90-110	0	20	mg/kg	10.19.2020 12:30	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140089

Matrix: Soil

Prep Method: E300P

Date Prep: 10.19.2020

Parent Sample Id: 675340-020

MS Sample Id: 675340-020 S

MSD Sample Id: 675340-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	322	253	564	96	568	97	90-110	1	20	mg/kg	10.19.2020 11:47	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140089

Matrix: Soil

Prep Method: E300P

Date Prep: 10.19.2020

Parent Sample Id: 675340-030

MS Sample Id: 675340-030 S

MSD Sample Id: 675340-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	90.4	250	345	102	347	103	90-110	1	20	mg/kg	10.19.2020 13:00	

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

Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: TPH By SW8015 Mod

Seq Number: 3140005

Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.17.2020

MB Sample Id: 7713460-1-BLK

LCS Sample Id: 7713460-1-BKS

LCSD Sample Id: 7713460-1-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	940	94	859	86	70-130	9	20	mg/kg	10.17.2020 18:14	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	973	97	70-130	9	20	mg/kg	10.17.2020 18:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		112		112		70-130	%	10.17.2020 18:14
o-Terphenyl	114		121		109		70-130	%	10.17.2020 18:14

Analytical Method: TPH By SW8015 Mod

Seq Number: 3140005

Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.17.2020

MB Sample Id: 7713460-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.17.2020 17:54	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3140005

Matrix: Soil

Prep Method: SW8015P

Date Prep: 10.17.2020

Parent Sample Id: 675340-001

MS Sample Id: 675340-001 S

MSD Sample Id: 675340-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	819	82	821	82	70-130	0	20	mg/kg	10.17.2020 19:11	
Diesel Range Organics (DRO)	<50.0	999	955	96	947	95	70-130	1	20	mg/kg	10.17.2020 19:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		99		70-130	%	10.17.2020 19:11
o-Terphenyl	103		101		70-130	%	10.17.2020 19:11

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139922

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.16.2020

MB Sample Id: 7713436-1-BLK

LCS Sample Id: 7713436-1-BKS

LCSD Sample Id: 7713436-1-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	0.0972	97	0.0968	97	70-130	0	35	mg/kg	10.16.2020 19:54	
Toluene	<0.00200	0.100	0.0972	97	0.0980	98	70-130	1	35	mg/kg	10.16.2020 19:54	
Ethylbenzene	<0.00200	0.100	0.0892	89	0.0912	91	70-130	2	35	mg/kg	10.16.2020 19:54	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.197	99	70-130	2	35	mg/kg	10.16.2020 19:54	
o-Xylene	<0.00200	0.100	0.0892	89	0.0913	91	70-130	2	35	mg/kg	10.16.2020 19:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		89		91		70-130	%	10.16.2020 19:54
4-Bromofluorobenzene	94		112		117		70-130	%	10.16.2020 19:54

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
Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139967

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.17.2020

MB Sample Id: 7713470-1-BLK

LCS Sample Id: 7713470-1-BKS

LCSD Sample Id: 7713470-1-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	0.103	103	0.105	105	70-130	2	35	mg/kg	10.17.2020 07:28	
Toluene	<0.00200	0.100	0.102	102	0.104	104	70-130	2	35	mg/kg	10.17.2020 07:28	
Ethylbenzene	<0.00200	0.100	0.0946	95	0.0957	96	70-130	1	35	mg/kg	10.17.2020 07:28	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.209	105	70-130	2	35	mg/kg	10.17.2020 07:28	
o-Xylene	<0.00200	0.100	0.0985	99	0.0973	97	70-130	1	35	mg/kg	10.17.2020 07:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		91		90		70-130	%	10.17.2020 07:28
4-Bromofluorobenzene	93		118		115		70-130	%	10.17.2020 07:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139978

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.17.2020

MB Sample Id: 7713477-1-BLK

LCS Sample Id: 7713477-1-BKS

LCSD Sample Id: 7713477-1-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	0.119	119	0.121	121	70-130	2	35	mg/kg	10.18.2020 08:15	
Toluene	<0.00200	0.100	0.103	103	0.104	104	70-130	1	35	mg/kg	10.18.2020 08:15	
Ethylbenzene	<0.00200	0.100	0.103	103	0.104	104	70-130	1	35	mg/kg	10.18.2020 08:15	
m,p-Xylenes	<0.00400	0.200	0.213	107	0.213	107	70-130	0	35	mg/kg	10.18.2020 08:15	
o-Xylene	<0.00200	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	10.18.2020 08:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		101		100		70-130	%	10.18.2020 08:15
4-Bromofluorobenzene	101		99		99		70-130	%	10.18.2020 08:15

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140074

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.19.2020

MB Sample Id: 7713551-1-BLK

LCS Sample Id: 7713551-1-BKS

LCSD Sample Id: 7713551-1-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	0.115	115	0.120	120	70-130	4	35	mg/kg	10.19.2020 10:26	
Toluene	<0.00200	0.100	0.102	102	0.108	108	70-130	6	35	mg/kg	10.19.2020 10:26	
Ethylbenzene	<0.00200	0.100	0.105	105	0.110	110	70-130	5	35	mg/kg	10.19.2020 10:26	
m,p-Xylenes	<0.00400	0.200	0.218	109	0.229	115	70-130	5	35	mg/kg	10.19.2020 10:26	
o-Xylene	<0.00200	0.100	0.107	107	0.112	112	70-130	5	35	mg/kg	10.19.2020 10:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		99		99		70-130	%	10.19.2020 10:26
4-Bromofluorobenzene	102		98		100		70-130	%	10.19.2020 10:26

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

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

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

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



Tetra Tech- Midland
Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140073

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.19.2020

MB Sample Id: 7713548-1-BLK

LCS Sample Id: 7713548-1-BKS

LCSD Sample Id: 7713548-1-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	0.104	104	0.0965	97	70-130	7	35	mg/kg	10.19.2020 15:34	
Toluene	<0.00200	0.100	0.107	107	0.0987	99	70-130	8	35	mg/kg	10.19.2020 15:34	
Ethylbenzene	<0.00200	0.100	0.103	103	0.0953	95	70-130	8	35	mg/kg	10.19.2020 15:34	
m,p-Xylenes	<0.00400	0.200	0.223	112	0.206	103	70-130	8	35	mg/kg	10.19.2020 15:34	
o-Xylene	<0.00200	0.100	0.104	104	0.0951	95	70-130	9	35	mg/kg	10.19.2020 15:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	81		94		91		70-130	%	10.19.2020 15:34
4-Bromofluorobenzene	101		136	**	130		70-130	%	10.19.2020 15:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139922

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.16.2020

Parent Sample Id: 675237-003

MS Sample Id: 675237-003 S

MSD Sample Id: 675237-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0608	61	0.0868	87	70-130	35	35	mg/kg	10.16.2020 20:36	X
Toluene	<0.00200	0.0998	0.0632	63	0.0872	88	70-130	32	35	mg/kg	10.16.2020 20:36	X
Ethylbenzene	<0.00200	0.0998	0.0578	58	0.0811	82	70-130	34	35	mg/kg	10.16.2020 20:36	X
m,p-Xylenes	<0.00399	0.200	0.128	64	0.175	88	70-130	31	35	mg/kg	10.16.2020 20:36	X
o-Xylene	<0.00200	0.0998	0.0632	63	0.0837	84	70-130	28	35	mg/kg	10.16.2020 20:36	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		70-130	%	10.16.2020 20:36
4-Bromofluorobenzene	115		123		70-130	%	10.16.2020 20:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139967

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.17.2020

Parent Sample Id: 675138-001

MS Sample Id: 675138-001 S

MSD Sample Id: 675138-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0189	19	0.0341	34	70-130	57	35	mg/kg	10.17.2020 08:10	XF
Toluene	<0.00201	0.101	0.0413	41	0.0322	32	70-130	25	35	mg/kg	10.17.2020 08:10	X
Ethylbenzene	<0.00201	0.101	0.0557	55	0.0328	33	70-130	52	35	mg/kg	10.17.2020 08:10	XF
m,p-Xylenes	<0.00403	0.201	0.0769	38	0.0718	36	70-130	7	35	mg/kg	10.17.2020 08:10	X
o-Xylene	<0.00201	0.101	0.0531	53	0.0401	40	70-130	28	35	mg/kg	10.17.2020 08:10	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	34	**	91		70-130	%	10.17.2020 08:10
4-Bromofluorobenzene	22	**	115		70-130	%	10.17.2020 08:10

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

Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139978

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.17.2020

Parent Sample Id: 675138-013

MS Sample Id: 675138-013 S

MSD Sample Id: 675138-013 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	0.0719	71	0.0857	86	70-130	18	35	mg/kg	10.18.2020 08:56	
Toluene	<0.00201	0.101	0.0485	48	0.0582	58	70-130	18	35	mg/kg	10.18.2020 08:56	X
Ethylbenzene	<0.00201	0.101	0.0428	42	0.0521	52	70-130	20	35	mg/kg	10.18.2020 08:56	X
m,p-Xylenes	<0.00402	0.201	0.0860	43	0.104	52	70-130	19	35	mg/kg	10.18.2020 08:56	X
o-Xylene	<0.00201	0.101	0.0416	41	0.0484	48	70-130	15	35	mg/kg	10.18.2020 08:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		70-130	%	10.18.2020 08:56
4-Bromofluorobenzene	104		102		70-130	%	10.18.2020 08:56

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140074

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.19.2020

Parent Sample Id: 675340-018

MS Sample Id: 675340-018 S

MSD Sample Id: 675340-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0955	96	0.102	103	70-130	7	35	mg/kg	10.19.2020 11:07	
Toluene	<0.00199	0.0994	0.0820	82	0.0887	89	70-130	8	35	mg/kg	10.19.2020 11:07	
Ethylbenzene	<0.00199	0.0994	0.0798	80	0.0883	89	70-130	10	35	mg/kg	10.19.2020 11:07	
m,p-Xylenes	<0.00398	0.199	0.164	82	0.182	91	70-130	10	35	mg/kg	10.19.2020 11:07	
o-Xylene	<0.00199	0.0994	0.0815	82	0.0903	91	70-130	10	35	mg/kg	10.19.2020 11:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		70-130	%	10.19.2020 11:07
4-Bromofluorobenzene	103		104		70-130	%	10.19.2020 11:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140073

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.19.2020

Parent Sample Id: 675340-028

MS Sample Id: 675340-028 S

MSD Sample Id: 675340-028 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0965	97	0.0852	85	70-130	12	35	mg/kg	10.19.2020 16:15	
Toluene	<0.00199	0.0994	0.101	102	0.0889	89	70-130	13	35	mg/kg	10.19.2020 16:15	
Ethylbenzene	<0.00199	0.0994	0.0942	95	0.0826	83	70-130	13	35	mg/kg	10.19.2020 16:15	
m,p-Xylenes	<0.00398	0.199	0.203	102	0.177	89	70-130	14	35	mg/kg	10.19.2020 16:15	
o-Xylene	<0.00199	0.0994	0.0973	98	0.0871	87	70-130	11	35	mg/kg	10.19.2020 16:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		83		70-130	%	10.19.2020 16:15
4-Bromofluorobenzene	133	**	125		70-130	%	10.19.2020 16:15

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

675340

Page

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Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line			
Project Location: Lea Co, NM		Project #: 212C-MD-02335	
Invoice to: EOG - Todd Wells		Sampler Signature: Devin Dominguez	
Receiving Laboratory: Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:
		YEAR: 2020	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
AH #1 (0-1')			10/14/2020		X			X				1 N		
AH #1 (1-1.5')			10/14/2020		X			X				1 N		
AH #1 (2-2.5')			10/14/2020		X			X				1 N		
AH #2 (0-1')			10/14/2020		X			X				1 N		
AH #2 (1-1.5')			10/14/2020		X			X				1 N		
AH #2 (2-2.5')			10/14/2020		X			X				1 N		
AH #3 (0-1')			10/14/2020		X			X				1 N		
AH #3 (1-1.5')			10/14/2020		X			X				1 N		
AH #3 (2-2.5')			10/14/2020		X			X				1 N		
AH #3 (3-3.5')			10/14/2020		X			X				1 N		

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 FEDEX UPS Tracking #:

Analysis Request of Custody Record



Tetra Tech, Inc.

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

1075340

Page

2 of 4

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line			
Project Location: Lea Co, NM		Project #: 212C-MD-02335	
Invoice to: EOG - Todd Wells		Sampler Signature: Devin Dominguez	
Receiving Laboratory: Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2020	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None			
AH #3 (4-4.5')			10/14/2020		X			X					1 N
AH #4 (0-1')			10/14/2020		X			X					1 N
AH #4 (1-1.5')			10/14/2020		X			X					1 N
AH #4 (2-2.5')			10/14/2020		X			X					1 N
AH #4 (3-3.5')			10/14/2020		X			X					1 N
AH #4 (4-4.5')			10/14/2020		X			X					1 N
AH #5 (0-1')			10/14/2020		X			X					1 N
AH #5 (1-1.5')			10/14/2020		X			X					1 N
AH #5 (2-2.5')			10/14/2020		X			X					1 N
AH #5 (3-3.5')			10/14/2020		X			X					1 N

Relinquished by: <i>James M. Jones</i>	Date: 10/15/2020	Time:
Relinquished by: <i>Mike Carmona</i>	Date: 10/27	Time:
Received by:	Date:	Time:

ORIGINAL COPY

 ANALYSIS REQUEST
 (Circle or Specify Method No.)

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

LAB USE ONLY	REMARKS:
Sample Temperature	☒ STANDARD
	☐ RUSH: Same Day 24 hr 48 hr 72 hr
	☐ Rush Charges Authorized
	☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line			
Project Location: Lea Co, NM		Project #: 212C-MD-02335	
Invoice to: EOG - Todd Wells		Sampler Signature: Devín Dominguez	
Receiving Laboratory: Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
										YEAR: 2020			
AH #5 (4-4.5)		10/14/2020		X				X				1 N	
AH #6 (0-1)		10/14/2020		X				X				1 N	
AH #6 (1-1.5)		10/14/2020		X				X				1 N	
AH #6 (2-2.5)		10/14/2020		X				X				1 N	
AH #6 (3-3.5)		10/14/2020		X				X				1 N	
AH #6 (4-4.5)		10/14/2020		X				X				1 N	
AH #7 (0-1)		10/14/2020		X				X				1 N	
AH #7 (1-1.5)		10/14/2020		X				X				1 N	
AH #7 (2-2.5)		10/14/2020		X				X				1 N	
AH #8 (0-1)		10/14/2020		X				X				1 N	

LAB USE ONLY	REMARKS:
☒ STANDARD	
☐ RUSH: Same Day 24 hr 48 hr 72 hr	
☐ Rush Charges Authorized	
☐ Special Report Limits or TRRP Report	

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 ANALYSIS REQUEST
 (Circle or Specify Method No.)

1075340 Page 3 of 4

Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland, Texas 79705
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Page 167534D

Page 4 of 7

Final 1.000

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10.15.2020 04.37.00 PM

Work Order #: 675340

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)?	2.6
#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 BTEX was in bulk container
#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: 10.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.15.2020

Analytical Report 675338

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Tumbling Dice CTB Osprey 10-601 Transfer Line

212C-MD-02335

10.20.2020

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)



10.20.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **675338**

Tumbling Dice CTB Osprey 10-601 Transfer Line

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) 675338. 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. 675338 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 675338****Tetra Tech- Midland, Midland, TX**

Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Horizontal #1 (0-1')	S	10.14.2020 00:00		675338-001
Horizontal #2 (0-1')	S	10.14.2020 00:00		675338-002
Horizontal #3 (0-1')	S	10.14.2020 00:00		675338-003
Horizontal #4 (0-1')	S	10.14.2020 00:00		675338-004
Horizontal #5 (0-1')	S	10.14.2020 00:00		675338-005
Horizontal #6 (0-1')	S	10.14.2020 00:00		675338-006
Horizontal #7 (0-1')	S	10.14.2020 00:00		675338-007
Horizontal #8 (0-1')	S	10.14.2020 00:00		675338-008
Horizontal #9 (0-1')	S	10.14.2020 00:00		675338-009

Certificate of Analysis Summary 675338



Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Date Received in Lab: Thu 10.15.2020 16:37

Contact: Mike Carmona

Report Date: 10.20.2020 14:08

Project Location: Lea Co,NM

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	675338-001 Horizontal #1 (0-1') SOIL 10.14.2020 00:00	675338-002 Horizontal #2 (0-1') SOIL 10.14.2020 00:00	675338-003 Horizontal #3 (0-1') SOIL 10.14.2020 00:00	675338-004 Horizontal #4 (0-1') SOIL 10.14.2020 00:00	675338-005 Horizontal #5 (0-1') SOIL 10.14.2020 00:00	675338-006 Horizontal #6 (0-1') SOIL 10.14.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	10.16.2020 17:00 10.16.2020 23:28 mg/kg RL	10.16.2020 17:00 10.16.2020 23:49 mg/kg RL	10.16.2020 17:00 10.17.2020 00:09 mg/kg RL	10.16.2020 17:00 10.17.2020 00:30 mg/kg RL	10.16.2020 17:00 10.17.2020 00:51 mg/kg RL	10.16.2020 17:00 10.17.2020 01:11 mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00401 0.00401	<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	10.16.2020 16:50 10.16.2020 21:16 mg/kg RL	10.16.2020 16:50 10.16.2020 21:35 mg/kg RL	10.16.2020 16:50 10.16.2020 21:42 mg/kg RL	10.16.2020 16:50 10.16.2020 21:48 mg/kg RL	10.16.2020 16:50 10.16.2020 21:54 mg/kg RL	10.16.2020 16:50 10.16.2020 22:01 mg/kg RL
Chloride		127 5.00	56.7 4.95	12.1 4.95	11.8 5.04	106 5.05	<5.05 5.05
TPH By SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	10.17.2020 08:00 10.17.2020 10:12 mg/kg RL	10.17.2020 08:00 10.17.2020 11:09 mg/kg RL	10.17.2020 08:00 10.17.2020 11:28 mg/kg RL	10.17.2020 08:00 10.17.2020 11:47 mg/kg RL	10.17.2020 08:00 10.17.2020 12:07 mg/kg RL	10.17.2020 08:00 10.17.2020 12:26 mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Total TPH		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 675338

Tetra Tech- Midland, Midland, TX

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335

Date Received in Lab: Thu 10.15.2020 16:37

Contact: Mike Carmona

Report Date: 10.20.2020 14:08

Project Location: Lea Co,NM

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	675338-007	675338-008	675338-009			
	Field Id:	Horizontal #7 (0-1')	Horizontal #8 (0-1')	Horizontal #9 (0-1')			
	Depth:						
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	10.14.2020 00:00	10.14.2020 00:00	10.14.2020 00:00			
BTEX by EPA 8021B	Extracted:	10.17.2020 12:15	10.16.2020 17:00	10.16.2020 17:00			
	Analyzed:	10.18.2020 11:38	10.17.2020 03:12	10.17.2020 03:33			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Toluene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Ethylbenzene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
m,p-Xylenes		<0.00402 0.00402	<0.00402 0.00402	<0.00403 0.00403			
o-Xylene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Total Xylenes		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Total BTEX		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Inorganic Anions by EPA 300/300.1	Extracted:	10.16.2020 16:50	10.16.2020 16:50	10.19.2020 10:30			
	Analyzed:	10.16.2020 22:07	10.16.2020 22:13	10.19.2020 10:55			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		<5.05 5.05	<4.98 4.98	<4.96 4.96			
TPH By SW8015 Mod	Extracted:	10.17.2020 08:00	10.17.2020 08:00	10.17.2020 08:00			
	Analyzed:	10.17.2020 12:46	10.17.2020 13:05	10.17.2020 13:24			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8	<49.9 49.9			
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<49.9 49.9			
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<49.9 49.9			
Total TPH		<49.9 49.9	<49.8 49.8	<49.9 49.9			

BRL - Below Reporting Limit

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





CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line

Project ID: 212C-MD-02335
Work Order Number(s): 675338

Report Date: 10.20.2020
Date Received: 10.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3139922 BTEX by EPA 8021B

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

Samples affected are: 675338-005.



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #1 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-001 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	5.00	mg/kg	10.16.2020 21:16		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 10:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 10:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 10:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 10:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-130	10.17.2020 10:12		
o-Terphenyl	84-15-1	99	%	70-130	10.17.2020 10:12		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

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

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-001

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3139922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.16.2020 23:28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.16.2020 23:28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.16.2020 23:28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.16.2020 23:28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.16.2020 23:28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.16.2020 23:28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.16.2020 23:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.16.2020 23:28		
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.16.2020 23:28		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #2 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-002 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.7	4.95	mg/kg	10.16.2020 21:35		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 11:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 11:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 11:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 11:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	87	%	70-130	10.17.2020 11:09		
o-Terphenyl	84-15-1	95	%	70-130	10.17.2020 11:09		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

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

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-002

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3139922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.16.2020 23:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.16.2020 23:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.16.2020 23:49	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.16.2020 23:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.16.2020 23:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.16.2020 23:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.16.2020 23:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.16.2020 23:49		
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.16.2020 23:49		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #3 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-003 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.1	4.95	mg/kg	10.16.2020 21:42		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 11:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 11:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 11:28	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 11:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	80	%	70-130	10.17.2020 11:28		
o-Terphenyl	84-15-1	84	%	70-130	10.17.2020 11:28		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

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

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-003

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 00:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 00:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 00:09	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.17.2020 00:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 00:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 00:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 00:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	10.17.2020 00:09		
4-Bromofluorobenzene	460-00-4	70	%	70-130	10.17.2020 00:09		



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #4 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-004 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.8	5.04	mg/kg	10.16.2020 21:48		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 11:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 11:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 11:47	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 11:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	82	%	70-130	10.17.2020 11:47		
o-Terphenyl	84-15-1	87	%	70-130	10.17.2020 11:47		



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

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

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-004

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 00:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 00:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 00:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.17.2020 00:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 00:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 00:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 00:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	70	%	70-130	10.17.2020 00:30		
1,4-Difluorobenzene	540-36-3	78	%	70-130	10.17.2020 00:30		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #5 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-005 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	106	5.05	mg/kg	10.16.2020 21:54		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.17.2020 12:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.17.2020 12:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.17.2020 12:07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.17.2020 12:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-130	10.17.2020 12:07		
o-Terphenyl	84-15-1	86	%	70-130	10.17.2020 12:07		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

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

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-005

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3139922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.17.2020 00:51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.17.2020 00:51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.17.2020 00:51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.17.2020 00:51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.17.2020 00:51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.17.2020 00:51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.17.2020 00:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	62	%	70-130	10.17.2020 00:51	**	
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.17.2020 00:51		



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Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #6 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-006 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	10.16.2020 22:01	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.2020 12:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.2020 12:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.2020 12:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.2020 12:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	84	%	70-130	10.17.2020 12:26		
o-Terphenyl	84-15-1	89	%	70-130	10.17.2020 12:26		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

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

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-006

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.17.2020 01:11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.17.2020 01:11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.17.2020 01:11	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.17.2020 01:11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.17.2020 01:11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.17.2020 01:11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.17.2020 01:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.17.2020 01:11		
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.17.2020 01:11		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #7 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-007 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	10.16.2020 22:07	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 12:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 12:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 12:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 12:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	10.17.2020 12:46	
o-Terphenyl	84-15-1	86	%	70-130	10.17.2020 12:46	



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #7 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-007

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.17.2020 12:15

% Moisture:

Seq Number: 3139978

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.18.2020 11:38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.18.2020 11:38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.18.2020 11:38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.18.2020 11:38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.18.2020 11:38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.18.2020 11:38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.18.2020 11:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	10.18.2020 11:38		
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.18.2020 11:38		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #8 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-008 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:
 Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	10.16.2020 22:13	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.17.2020 13:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.17.2020 13:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.17.2020 13:05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.17.2020 13:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	10.17.2020 13:05	
o-Terphenyl	84-15-1	85	%	70-130	10.17.2020 13:05	



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #8 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-008

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.17.2020 03:12	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.17.2020 03:12	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.17.2020 03:12	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.17.2020 03:12	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.17.2020 03:12	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.17.2020 03:12	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.17.2020 03:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	70-130	10.17.2020 03:12		
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.17.2020 03:12		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #9 (0-1')** Matrix: Soil Date Received: 10.15.2020 16:37
 Lab Sample Id: 675338-009 Date Collected: 10.14.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: CHE
 Analyst: CHE Date Prep: 10.19.2020 10:30 % Moisture:
 Seq Number: 3140087 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	10.19.2020 10:55	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 10.17.2020 08:00 % Moisture:
 Seq Number: 3140004 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.17.2020 13:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.17.2020 13:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.17.2020 13:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.17.2020 13:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	79	%	70-130	10.17.2020 13:24		
o-Terphenyl	84-15-1	83	%	70-130	10.17.2020 13:24		



Certificate of Analytical Results 675338

Tetra Tech- Midland, Midland, TX Tumbling Dice CTB Osprey 10-601 Transfer Line

Sample Id: **Horizontal #9 (0-1')**

Matrix: Soil

Date Received: 10.15.2020 16:37

Lab Sample Id: 675338-009

Date Collected: 10.14.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 10.16.2020 17:00

% Moisture:

Seq Number: 3139922

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.17.2020 03:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.17.2020 03:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.17.2020 03:33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.17.2020 03:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.17.2020 03:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.17.2020 03:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.17.2020 03:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	10.17.2020 03:33		
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.17.2020 03:33		

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

Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3139954

Matrix: Solid

Prep Method: E300P

Date Prep: 10.16.2020

MB Sample Id: 7713445-1-BLK

LCS Sample Id: 7713445-1-BKS

LCSD Sample Id: 7713445-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	251	100	251	100	90-110	0	20	mg/kg	10.16.2020 19:09	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140087

Matrix: Solid

Prep Method: E300P

Date Prep: 10.19.2020

MB Sample Id: 7713492-1-BLK

LCS Sample Id: 7713492-1-BKS

LCSD Sample Id: 7713492-1-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	257	103	257	103	90-110	0	20	mg/kg	10.19.2020 10:42	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3139954

Matrix: Soil

Prep Method: E300P

Date Prep: 10.16.2020

Parent Sample Id: 675138-014

MS Sample Id: 675138-014 S

MSD Sample Id: 675138-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	128	255	424	116	410	111	90-110	3	20	mg/kg	10.16.2020 19:28	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3139954

Matrix: Soil

Prep Method: E300P

Date Prep: 10.16.2020

Parent Sample Id: 675266-003

MS Sample Id: 675266-003 S

MSD Sample Id: 675266-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1170	2500	4030	114	3940	111	90-110	2	20	mg/kg	10.16.2020 20:57	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140087

Matrix: Soil

Prep Method: E300P

Date Prep: 10.19.2020

Parent Sample Id: 675338-009

MS Sample Id: 675338-009 S

MSD Sample Id: 675338-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.96	248	256	103	256	103	90-110	0	20	mg/kg	10.19.2020 11:02	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3140087

Matrix: Soil

Prep Method: E300P

Date Prep: 10.19.2020

Parent Sample Id: 675340-010

MS Sample Id: 675340-010 S

MSD Sample Id: 675340-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	598	253	839	95	838	95	90-110	0	20	mg/kg	10.19.2020 12:30	

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

Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: TPH By SW8015 Mod

Seq Number: 3140004

Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.17.2020

MB Sample Id: 7713459-1-BLK

LCS Sample Id: 7713459-1-BKS

LCSD Sample Id: 7713459-1-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	866	87	853	85	70-130	2	20	mg/kg	10.17.2020 09:34	
Diesel Range Organics (DRO)	<50.0	1000	947	95	931	93	70-130	2	20	mg/kg	10.17.2020 09:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		111		104		70-130	%	10.17.2020 09:34
o-Terphenyl	107		114		116		70-130	%	10.17.2020 09:34

Analytical Method: TPH By SW8015 Mod

Seq Number: 3140004

Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.17.2020

MB Sample Id: 7713459-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.17.2020 09:15	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3140004

Matrix: Soil

Prep Method: SW8015P

Date Prep: 10.17.2020

Parent Sample Id: 675338-001

MS Sample Id: 675338-001 S

MSD Sample Id: 675338-001 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	848	85	860	86	70-130	1	20	mg/kg	10.17.2020 10:31	
Diesel Range Organics (DRO)	<49.9	998	941	94	941	94	70-130	0	20	mg/kg	10.17.2020 10:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		107		70-130	%	10.17.2020 10:31
o-Terphenyl	106		106		70-130	%	10.17.2020 10:31

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139922

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.16.2020

MB Sample Id: 7713436-1-BLK

LCS Sample Id: 7713436-1-BKS

LCSD Sample Id: 7713436-1-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	0.0972	97	0.0968	97	70-130	0	35	mg/kg	10.16.2020 19:54	
Toluene	<0.00200	0.100	0.0972	97	0.0980	98	70-130	1	35	mg/kg	10.16.2020 19:54	
Ethylbenzene	<0.00200	0.100	0.0892	89	0.0912	91	70-130	2	35	mg/kg	10.16.2020 19:54	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.197	99	70-130	2	35	mg/kg	10.16.2020 19:54	
o-Xylene	<0.00200	0.100	0.0892	89	0.0913	91	70-130	2	35	mg/kg	10.16.2020 19:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		89		91		70-130	%	10.16.2020 19:54
4-Bromofluorobenzene	94		112		117		70-130	%	10.16.2020 19:54

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
Tumbling Dice CTB Osprey 10-601 Transfer Line

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139978

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.17.2020

MB Sample Id: 7713477-1-BLK

LCS Sample Id: 7713477-1-BKS

LCSD Sample Id: 7713477-1-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	0.119	119	0.121	121	70-130	2	35	mg/kg	10.18.2020 08:15	
Toluene	<0.00200	0.100	0.103	103	0.104	104	70-130	1	35	mg/kg	10.18.2020 08:15	
Ethylbenzene	<0.00200	0.100	0.103	103	0.104	104	70-130	1	35	mg/kg	10.18.2020 08:15	
m,p-Xylenes	<0.00400	0.200	0.213	107	0.213	107	70-130	0	35	mg/kg	10.18.2020 08:15	
o-Xylene	<0.00200	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	10.18.2020 08:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		101		100		70-130	%	10.18.2020 08:15
4-Bromofluorobenzene	101		99		99		70-130	%	10.18.2020 08:15

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139922

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.16.2020

Parent Sample Id: 675237-003

MS Sample Id: 675237-003 S

MSD Sample Id: 675237-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0608	61	0.0868	87	70-130	35	35	mg/kg	10.16.2020 20:36	X
Toluene	<0.00200	0.0998	0.0632	63	0.0872	88	70-130	32	35	mg/kg	10.16.2020 20:36	X
Ethylbenzene	<0.00200	0.0998	0.0578	58	0.0811	82	70-130	34	35	mg/kg	10.16.2020 20:36	X
m,p-Xylenes	<0.00399	0.200	0.128	64	0.175	88	70-130	31	35	mg/kg	10.16.2020 20:36	X
o-Xylene	<0.00200	0.0998	0.0632	63	0.0837	84	70-130	28	35	mg/kg	10.16.2020 20:36	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		70-130	%	10.16.2020 20:36
4-Bromofluorobenzene	115		123		70-130	%	10.16.2020 20:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139978

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.17.2020

Parent Sample Id: 675138-013

MS Sample Id: 675138-013 S

MSD Sample Id: 675138-013 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	0.0719	71	0.0857	86	70-130	18	35	mg/kg	10.18.2020 08:56	
Toluene	<0.00201	0.101	0.0485	48	0.0582	58	70-130	18	35	mg/kg	10.18.2020 08:56	X
Ethylbenzene	<0.00201	0.101	0.0428	42	0.0521	52	70-130	20	35	mg/kg	10.18.2020 08:56	X
m,p-Xylenes	<0.00402	0.201	0.0860	43	0.104	52	70-130	19	35	mg/kg	10.18.2020 08:56	X
o-Xylene	<0.00201	0.101	0.0416	41	0.0484	48	70-130	15	35	mg/kg	10.18.2020 08:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		70-130	%	10.18.2020 08:56
4-Bromofluorobenzene	104		102		70-130	%	10.18.2020 08:56

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

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

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

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

Analysis Request of Chain of Custody Record

Page 1 of 1



Tetra Tech, Inc.

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

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Tumbling Dice CTB Osprey 10-601 Transfer Line			
Project Location: Lea Co, NM		Project #: 212C-MD-02335	
Invoice to: EOG - Todd Wells			
Receiving Laboratory: Xenco		Sampler Signature: Devin Dominguez	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None			
												YEAR: 2020
	Horizontal #1 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #2 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #3 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #4 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #5 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #6 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #7 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #8 (0-1')	10/1/4/2020		X				X			1 N	
	Horizontal #9 (0-1')	10/1/4/2020		X				X			1 N	

LAB USE ONLY	REMARKS:
☒ STANDARD	
☐ RUSH: Same Day 24 hr 48 hr 72 hr	
☐ Rush Charges Authorized	
☐ Special Report Limits or TRRP Report	

ANALYSIS REQUEST (Circle or Specify Method No.)
BTEX 8021B BTEX 8260B
TPH TX1005 (Ext to C35)
TPH 8015M (GRO - DRO - ORO - MRO)
PAH 8270C
Total Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Volatiles
TCLP Semi Volatiles
RCI
GC/MS Vol. 8260B / 624
GC/MS Semi. Vol. 8270C/625
PCB's 8082 / 608
NORM
PLM (Asbestos)
Chloride
Chloride Sulfate TDS
General Water Chemistry (see attached list)
Anion/Cation Balance
Hold

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(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10.15.2020 04.37.00 PM

Work Order #: 675338

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)?	2.6
#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 BTEX was in bulk container
#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: 10.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.15.2020

Analytical Report 677577

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Osprey 10-601 Transfer Line

212C-MD-02335

11.13.2020

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)



11.13.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **677577**

Osprey 10-601 Transfer Line

Project Address: Lea County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 677577. 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. 677577 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 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottomhole-1 (4')	S	11.09.2020 00:00		677577-001
Bottomhole-2 (4')	S	11.09.2020 00:00		677577-002
Bottomhole-3 (4')	S	11.09.2020 00:00		677577-003
Bottomhole-4 (1.5')	S	11.09.2020 00:00		677577-004
Bottomhole-5 (1.5')	S	11.09.2020 00:00		677577-005
Bottomhole-6 (1.5')	S	11.09.2020 00:00		677577-006
Bottomhole-7 (1.5')	S	11.09.2020 00:00		677577-007
Bottomhole-8 (1.5')	S	11.09.2020 00:00		677577-008
Bottomhole-9 (1.5')	S	11.09.2020 00:00		677577-009
Bottomhole-10 (1.5')	S	11.09.2020 00:00		677577-010
Bottomhole-11 (1.5')	S	11.09.2020 00:00		677577-011
Bottomhole-12 (1.5')	S	11.09.2020 00:00		677577-012
Bottomhole-13 (1.5')	S	11.09.2020 00:00		677577-013
Bottomhole-14 (1.5')	S	11.09.2020 00:00		677577-014
Bottomhole-15 (2.5')	S	11.09.2020 00:00		677577-015
Bottomhole-16 (2.5')	S	11.09.2020 00:00		677577-016
Bottomhole-17 (2.5')	S	11.09.2020 00:00		677577-017
SW-1 (4')	S	11.09.2020 00:00		677577-018
SW-2 (4')	S	11.09.2020 00:00		677577-019
SW-3 (4')	S	11.09.2020 00:00		677577-020
SW-4 (4')	S	11.09.2020 00:00		677577-021
SW-5(1.5'	S	11.09.2020 00:00		677577-022
SW-6 1.5'	S	11.09.2020 00:00		677577-023
SW-7 1.5'	S	11.09.2020 00:00		677577-024
SW-8 1.5'	S	11.09.2020 00:00		677577-025
SW-9 1.5'	S	11.09.2020 00:00		677577-026
SW-10 1.5'	S	11.09.2020 00:00		677577-027
SW-11 (2.5')	S	11.09.2020 00:00		677577-028
SW-12 (2.5')	S	11.09.2020 00:00		677577-029
SW-13 (2.5')	S	11.09.2020 00:00		677577-030
SW-14 (2.5')	S	11.09.2020 00:00		677577-031

Certificate of Analysis Summary 677577



Tetra Tech- Midland, Midland, TX

Project Name: Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Wed 11.11.2020 15:00
Report Date: 11.13.2020 16:34
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	677577-001 Bottomhole-1 (4')	677577-002 Bottomhole-2 (4')	677577-003 Bottomhole-3 (4')	677577-004 Bottomhole-4 (4')	677577-005 Bottomhole-5 (1.5')	677577-006 Bottomhole-6 (1.5')
		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.11.2020 17:00 11.11.2020 19:20 mg/kg RL	11.11.2020 17:00 11.11.2020 19:41 mg/kg RL	11.11.2020 17:00 11.11.2020 20:01 mg/kg RL	11.11.2020 17:00 11.11.2020 20:21 mg/kg RL	11.11.2020 17:00 11.11.2020 20:42 mg/kg RL	11.11.2020 17:00 11.11.2020 21:02 mg/kg RL
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	<0.00404 0.00404	<0.00398 0.00398	<0.00398 0.00398	<0.00401 0.00401
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.12.2020 16:40 11.12.2020 19:09 mg/kg RL	11.12.2020 16:40 11.12.2020 19:14 mg/kg RL	11.12.2020 16:40 11.12.2020 19:19 mg/kg RL	11.12.2020 16:40 11.12.2020 19:25 mg/kg RL	11.12.2020 16:40 11.12.2020 19:30 mg/kg RL	11.12.2020 16:55 11.12.2020 20:02 mg/kg RL
Chloride		213 4.98	209 5.04	187 4.96	142 4.96	130 5.00	137 4.96
TPH By SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.11.2020 17:00 11.11.2020 22:16 mg/kg RL	11.11.2020 17:00 11.11.2020 23:13 mg/kg RL	11.11.2020 17:00 11.11.2020 23:33 mg/kg RL	11.11.2020 17:00 11.11.2020 23:51 mg/kg RL	11.11.2020 17:00 11.12.2020 00:10 mg/kg RL	11.11.2020 17:00 11.12.2020 00:28 mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8
Total TPH		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 677577



Tetra Tech- Midland, Midland, TX

Project Name: Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Wed 11.11.2020 15:00
Report Date: 11.13.2020 16:34
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	677577-007 Bottomhole-7 (1.5')	677577-008 Bottomhole-8 (1.5')	677577-009 Bottomhole-9 (1.5')	677577-010 Bottomhole-10 (1.5')	677577-011 Bottomhole-11 (1.5')	677577-012 Bottomhole-12 (1.5')
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.11.2020 17:00 11.11.2020 21:23 mg/kg RL	11.11.2020 17:00 11.11.2020 21:43 mg/kg RL	11.12.2020 08:00 *** ** mg/kg RL	11.12.2020 08:00 *** ** mg/kg RL	11.12.2020 08:00 *** ** mg/kg RL	11.12.2020 08:00 *** ** mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398	<0.00397 0.00397	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.12.2020 16:55 11.12.2020 20:17 mg/kg RL	11.12.2020 16:55 11.12.2020 20:23 mg/kg RL	11.12.2020 16:55 11.12.2020 20:28 mg/kg RL	11.12.2020 16:55 11.12.2020 20:33 mg/kg RL	11.12.2020 16:55 11.12.2020 20:49 mg/kg RL	11.12.2020 16:55 11.12.2020 20:54 mg/kg RL
Chloride		133 5.04	192 5.02	191 4.98	62.7 4.96	57.6 5.00	60.1 4.97
TPH By SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.11.2020 17:00 11.12.2020 00:47 mg/kg RL	11.11.2020 17:00 11.12.2020 01:06 mg/kg RL	11.11.2020 17:00 11.12.2020 01:25 mg/kg RL	11.11.2020 17:00 11.12.2020 01:44 mg/kg RL	11.11.2020 17:00 11.12.2020 02:21 mg/kg RL	11.11.2020 17:00 11.12.2020 02:40 mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0

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Certificate of Analysis Summary 677577



Tetra Tech- Midland, Midland, TX

Project Name: Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Wed 11.11.2020 15:00**Report Date:** 11.13.2020 16:34**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	677577-013 Bottomhole-13 (1.5') SOIL 11.09.2020 00:00	677577-014 Bottomhole-14 (1.5') SOIL 11.09.2020 00:00	677577-015 Bottomhole-15 (2.5') SOIL 11.09.2020 00:00	677577-016 Bottomhole-16 (2.5') SOIL 11.09.2020 00:00	677577-017 Bottomhole-17 (2.5') SOIL 11.09.2020 00:00	677577-018 SW-1 (4') SOIL 11.09.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.12.2020 08:00 11.12.2020 09:25 mg/kg RL	11.12.2020 08:00 11.12.2020 09:45 mg/kg RL	11.12.2020 08:00 11.12.2020 10:05 mg/kg RL	11.12.2020 08:00 11.12.2020 10:26 mg/kg RL	11.12.2020 08:00 11.12.2020 10:46 mg/kg RL	11.12.2020 08:00 11.12.2020 11:07 mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00398 0.00398	<0.00403 0.00403	<0.00398 0.00398	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.12.2020 16:55 11.12.2020 21:00 mg/kg RL	11.12.2020 16:55 11.12.2020 21:05 mg/kg RL	11.12.2020 16:55 11.12.2020 21:10 mg/kg RL	11.12.2020 16:55 11.12.2020 21:15 mg/kg RL	11.12.2020 16:55 11.12.2020 21:31 mg/kg RL	11.12.2020 16:55 11.12.2020 21:36 mg/kg RL
Chloride		84.4 5.00	80.6 5.00	123 5.00	138 5.05	151 5.01	187 4.97
TPH By SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	11.11.2020 17:00 11.12.2020 02:59 mg/kg RL	11.11.2020 17:00 11.12.2020 03:18 mg/kg RL	11.11.2020 17:00 11.12.2020 03:36 mg/kg RL	11.11.2020 17:00 11.12.2020 03:55 mg/kg RL	11.11.2020 17:00 11.12.2020 04:14 mg/kg RL	11.11.2020 17:00 11.12.2020 04:33 mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0

BRL - Below Reporting Limit

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Certificate of Analysis Summary 677577



Tetra Tech- Midland, Midland, TX

Project Name: Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Wed 11.11.2020 15:00
Report Date: 11.13.2020 16:34
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	677577-019	677577-020	677577-021	677577-022	677577-023	677577-024
	<i>Field Id:</i>	SW-2 (4')	SW-3 (4')	SW-4 (4')	SW-5 (1.5')	SW-6 (1.5')	SW-7 (1.5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	11.12.2020 08:00	11.12.2020 08:00	11.12.2020 08:00	11.12.2020 08:00	11.12.2020 08:00	11.12.2020 08:00
	<i>Analyzed:</i>	11.12.2020 13:17	11.12.2020 13:38	11.12.2020 13:58	11.12.2020 14:18	11.12.2020 16:14	11.12.2020 16:34
	<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	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes		<0.00399 0.00399	<0.00396 0.00396	<0.00397 0.00397	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	11.12.2020 16:55	11.12.2020 16:55	11.12.2020 16:55	11.12.2020 16:55	11.12.2020 16:55	11.12.2020 16:55
	<i>Analyzed:</i>	11.12.2020 21:52	11.12.2020 21:58	11.12.2020 22:03	11.12.2020 22:08	11.12.2020 22:13	11.12.2020 22:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		221 4.98	185 4.97	212 5.02	186 5.04	190 4.99	187 5.03
TPH By SW8015 Mod	<i>Extracted:</i>	11.11.2020 17:00	11.11.2020 17:00	11.11.2020 15:30	11.11.2020 15:30	11.11.2020 15:30	11.11.2020 15:30
	<i>Analyzed:</i>	11.12.2020 04:52	11.12.2020 05:10	11.11.2020 16:51	11.11.2020 17:49	11.11.2020 18:08	11.11.2020 18:28
	<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	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 677577



Tetra Tech- Midland, Midland, TX

Project Name: Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Wed 11.11.2020 15:00
Report Date: 11.13.2020 16:34
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	677577-025	677577-026	677577-027	677577-028	677577-029	677577-030
	<i>Field Id:</i>	SW-8 (1.5')	SW-9 (1.5')	SW-10 (1.5')	SW-11 (2.5')	SW-12 (2.5')	SW-13 (2.5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00	11.09.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	11.12.2020 08:00	11.12.2020 08:00	11.12.2020 08:00	11.12.2020 08:00	11.12.2020 13:00	11.12.2020 13:00
	<i>Analyzed:</i>	11.12.2020 16:55	11.12.2020 17:15	11.12.2020 17:36	11.12.2020 17:56	11.12.2020 21:19	11.12.2020 21:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00403 0.00403	<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	11.12.2020 16:55	11.12.2020 17:10	11.12.2020 17:10	11.12.2020 17:10	11.12.2020 17:10	11.12.2020 17:10
	<i>Analyzed:</i>	11.12.2020 22:24	11.12.2020 22:56	11.12.2020 23:11	11.12.2020 23:17	11.12.2020 23:22	11.12.2020 23:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		78.0 5.03	82.0 4.99	80.3 4.99	151 5.03	137 5.05	137 4.96
TPH By SW8015 Mod	<i>Extracted:</i>	11.11.2020 15:30	11.11.2020 15:30	11.11.2020 15:30	11.11.2020 15:30	11.11.2020 15:30	11.11.2020 15:30
	<i>Analyzed:</i>	11.11.2020 18:46	11.11.2020 19:05	11.11.2020 19:24	11.11.2020 19:43	11.11.2020 20:02	11.11.2020 20:21
	<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	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 677577

Tetra Tech- Midland, Midland, TX

Project Name: Osprey 10-601 Transfer Line

Project Id: 212C-MD-02335
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Wed 11.11.2020 15:00
Report Date: 11.13.2020 16:34
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 677577-031 Field Id: SW-14 (2.5') Depth: Matrix: SOIL Sampled: 11.09.2020 00:00					
BTEX by EPA 8021B	Extracted: 11.12.2020 13:00 Analyzed: 11.12.2020 22:00 Units/RL: mg/kg RL					
Benzene	<0.00202 0.00202					
Toluene	<0.00202 0.00202					
Ethylbenzene	<0.00202 0.00202					
m,p-Xylenes	<0.00403 0.00403					
o-Xylene	<0.00202 0.00202					
Total Xylenes	<0.00202 0.00202					
Total BTEX	<0.00202 0.00202					
Inorganic Anions by EPA 300/300.1	Extracted: 11.12.2020 17:10 Analyzed: 11.12.2020 23:43 Units/RL: mg/kg RL					
Chloride	142 4.97					
TPH By SW8015 Mod	Extracted: 11.11.2020 15:30 Analyzed: 11.11.2020 20:40 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<49.8 49.8					
Diesel Range Organics (DRO)	<49.8 49.8					
Motor Oil Range Hydrocarbons (MRO)	<49.8 49.8					
Total TPH	<49.8 49.8					

BRL - Below Reporting Limit

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



**CASE NARRATIVE****Client Name: Tetra Tech- Midland****Project Name: Osprey 10-601 Transfer Line**

Project ID: 212C-MD-02335
Work Order Number(s): 677577

Report Date: 11.13.2020
Date Received: 11.11.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3142072 TPH By SW8015 Mod

Gasoline Range Hydrocarbons (GRO) RPD was outside laboratory control limits.

Samples in the analytical batch are: 677577-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020

Batch: LBA-3142132 BTEX by EPA 8021B

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

Samples affected are: 677577-019.

Lab Sample ID 677577-009 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered below QC limits in the Matrix Spike. Benzene 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: 677577-009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028.

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



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-1 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-001

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.12.2020 16:40

% Moisture:

Seq Number: 3142225

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	213	4.98	mg/kg	11.12.2020 19:09		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 22:16	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 22:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 22:16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 22:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	97	%	70-130	11.11.2020 22:16		
o-Terphenyl	84-15-1	112	%	70-130	11.11.2020 22:16		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-1 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-001

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.11.2020 19:20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.11.2020 19:20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.11.2020 19:20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.11.2020 19:20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.11.2020 19:20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.11.2020 19:20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.11.2020 19:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.11.2020 19:20		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.11.2020 19:20		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-2 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-002

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.12.2020 16:40

% Moisture:

Seq Number: 3142225

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	209	5.04	mg/kg	11.12.2020 19:14		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 23:13	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 23:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 23:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 23:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	11.11.2020 23:13	
o-Terphenyl	84-15-1	110	%	70-130	11.11.2020 23:13	



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-2 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-002

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.11.2020 19:41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.11.2020 19:41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.11.2020 19:41	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.11.2020 19:41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.11.2020 19:41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.11.2020 19:41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.11.2020 19:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.11.2020 19:41		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.11.2020 19:41		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-3 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-003

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.12.2020 16:40

% Moisture:

Seq Number: 3142225

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	187	4.96	mg/kg	11.12.2020 19:19		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 23:33	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 23:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 23:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 23:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	11.11.2020 23:33	
o-Terphenyl	84-15-1	113	%	70-130	11.11.2020 23:33	



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-3 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-003

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.11.2020 20:01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.11.2020 20:01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.11.2020 20:01	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.11.2020 20:01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.11.2020 20:01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.11.2020 20:01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.11.2020 20:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.11.2020 20:01		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.11.2020 20:01		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-4 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-004

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.12.2020 16:40

% Moisture:

Seq Number: 3142225

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	142	4.96	mg/kg	11.12.2020 19:25		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 23:51	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 23:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 23:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 23:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	98	%	70-130	11.11.2020 23:51		
o-Terphenyl	84-15-1	110	%	70-130	11.11.2020 23:51		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-4 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-004

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.11.2020 20:21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.11.2020 20:21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.11.2020 20:21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.11.2020 20:21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.11.2020 20:21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.11.2020 20:21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.11.2020 20:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.11.2020 20:21		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.11.2020 20:21		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-5 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-005

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.12.2020 16:40

% Moisture:

Seq Number: 3142225

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	130	5.00	mg/kg	11.12.2020 19:30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.12.2020 00:10	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.12.2020 00:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.12.2020 00:10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.12.2020 00:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	100	%	70-130	11.12.2020 00:10		
o-Terphenyl	84-15-1	112	%	70-130	11.12.2020 00:10		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-5 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-005

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.11.2020 20:42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.11.2020 20:42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.11.2020 20:42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.11.2020 20:42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.11.2020 20:42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.11.2020 20:42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.11.2020 20:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.11.2020 20:42		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.11.2020 20:42		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-6 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-006

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	4.96	mg/kg	11.12.2020 20:02		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.12.2020 00:28	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.12.2020 00:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.12.2020 00:28	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.12.2020 00:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	11.12.2020 00:28	
o-Terphenyl	84-15-1	115	%	70-130	11.12.2020 00:28	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-6 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-006

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.11.2020 21:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.11.2020 21:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.11.2020 21:02	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.11.2020 21:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.11.2020 21:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.11.2020 21:02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.11.2020 21:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.11.2020 21:02		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.11.2020 21:02		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-7 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-007

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	133	5.04	mg/kg	11.12.2020 20:17		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 00:47	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 00:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 00:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 00:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	97	%	70-130	11.12.2020 00:47		
o-Terphenyl	84-15-1	108	%	70-130	11.12.2020 00:47		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-7 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-007

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.11.2020 21:23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.11.2020 21:23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.11.2020 21:23	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.11.2020 21:23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.11.2020 21:23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.11.2020 21:23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.11.2020 21:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.11.2020 21:23		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.11.2020 21:23		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-8 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-008

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	192	5.02	mg/kg	11.12.2020 20:23		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 01:06	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 01:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 01:06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 01:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	11.12.2020 01:06	
o-Terphenyl	84-15-1	114	%	70-130	11.12.2020 01:06	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-8 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-008

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142010

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.11.2020 21:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.11.2020 21:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.11.2020 21:43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.11.2020 21:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.11.2020 21:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.11.2020 21:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.11.2020 21:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.11.2020 21:43		
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.11.2020 21:43		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-9 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-009

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	191	4.98	mg/kg	11.12.2020 20:28		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.12.2020 01:25	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.12.2020 01:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.12.2020 01:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.12.2020 01:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	97	%	70-130	11.12.2020 01:25		
o-Terphenyl	84-15-1	111	%	70-130	11.12.2020 01:25		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-9 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-009

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.12.2020 01:06	UX	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.12.2020 01:06	UX	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.12.2020 01:06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.12.2020 01:06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.12.2020 01:06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.12.2020 01:06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.12.2020 01:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.12.2020 01:06		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.12.2020 01:06		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-10 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-010

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	62.7	4.96	mg/kg	11.12.2020 20:33		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.12.2020 01:44	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.12.2020 01:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.12.2020 01:44	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.12.2020 01:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-130	11.12.2020 01:44		
o-Terphenyl	84-15-1	102	%	70-130	11.12.2020 01:44		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-10 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-010

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 01:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 01:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 01:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 01:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 01:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 01:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 01:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.12.2020 01:26		
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.12.2020 01:26		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-11 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-011

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.6	5.00	mg/kg	11.12.2020 20:49		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 02:21	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 02:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 02:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 02:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-130	11.12.2020 02:21		
o-Terphenyl	84-15-1	100	%	70-130	11.12.2020 02:21		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-11 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-011

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.12.2020 01:46	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.12.2020 01:46	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.12.2020 01:46	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.12.2020 01:46	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.12.2020 01:46	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.12.2020 01:46	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.12.2020 01:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.12.2020 01:46		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.12.2020 01:46		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-12 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-012

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.1	4.97	mg/kg	11.12.2020 20:54		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 02:40	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 02:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 02:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 02:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	11.12.2020 02:40	
o-Terphenyl	84-15-1	102	%	70-130	11.12.2020 02:40	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-12 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-012

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.2020 02:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.2020 02:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.2020 02:07	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.12.2020 02:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.2020 02:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.2020 02:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.2020 02:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.12.2020 02:07		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.12.2020 02:07		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-13 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-013

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	84.4	5.00	mg/kg	11.12.2020 21:00		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.12.2020 02:59	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.12.2020 02:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.12.2020 02:59	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.12.2020 02:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	11.12.2020 02:59	
o-Terphenyl	84-15-1	101	%	70-130	11.12.2020 02:59	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-13 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-013

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 09:25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 09:25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 09:25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 09:25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 09:25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 09:25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 09:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.12.2020 09:25		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.12.2020 09:25		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-14 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-014

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.6	5.00	mg/kg	11.12.2020 21:05		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.12.2020 03:18	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.12.2020 03:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.12.2020 03:18	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.12.2020 03:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-130	11.12.2020 03:18		
o-Terphenyl	84-15-1	99	%	70-130	11.12.2020 03:18		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-14 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-014

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.2020 09:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.2020 09:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.2020 09:45	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.12.2020 09:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.2020 09:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.2020 09:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.2020 09:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.12.2020 09:45		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.12.2020 09:45		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-15 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-015

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	5.00	mg/kg	11.12.2020 21:10		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 03:36	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 03:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 03:36	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 03:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	11.12.2020 03:36	
o-Terphenyl	84-15-1	106	%	70-130	11.12.2020 03:36	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-15 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-015

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 10:05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 10:05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 10:05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 10:05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 10:05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 10:05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 10:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.12.2020 10:05		
1,4-Difluorobenzene	540-36-3	83	%	70-130	11.12.2020 10:05		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-16 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-016

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	138	5.05	mg/kg	11.12.2020 21:15		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 03:55	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 03:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 03:55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 03:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	11.12.2020 03:55	
o-Terphenyl	84-15-1	109	%	70-130	11.12.2020 03:55	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-16 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-016

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.12.2020 10:26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.12.2020 10:26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.12.2020 10:26	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.12.2020 10:26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.12.2020 10:26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.12.2020 10:26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.12.2020 10:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.12.2020 10:26		
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.12.2020 10:26		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-17 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-017

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	5.01	mg/kg	11.12.2020 21:31		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 04:14	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 04:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 04:14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 04:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	11.12.2020 04:14	
o-Terphenyl	84-15-1	114	%	70-130	11.12.2020 04:14	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **Bottomhole-17 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-017

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 10:46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 10:46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 10:46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 10:46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 10:46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 10:46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 10:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.12.2020 10:46		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.12.2020 10:46		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-1 (4')**
Lab Sample Id: 677577-018

Matrix: Soil
Date Collected: 11.09.2020 00:00

Date Received: 11.11.2020 15:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:
Basis: Wet Weight

Seq Number: 3142163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	187	4.97	mg/kg	11.12.2020 21:36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3142072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 04:33	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 04:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 04:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 04:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	11.12.2020 04:33	
o-Terphenyl	84-15-1	115	%	70-130	11.12.2020 04:33	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-1 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-018

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.2020 11:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.2020 11:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.2020 11:07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.12.2020 11:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.2020 11:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.2020 11:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.2020 11:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.12.2020 11:07		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.12.2020 11:07		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-2 (4')**
Lab Sample Id: 677577-019

Matrix: Soil
Date Collected: 11.09.2020 00:00

Date Received: 11.11.2020 15:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:
Basis: Wet Weight

Seq Number: 3142163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	221	4.98	mg/kg	11.12.2020 21:52		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3142072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.12.2020 04:52	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.12.2020 04:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.12.2020 04:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.12.2020 04:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	11.12.2020 04:52	
o-Terphenyl	84-15-1	112	%	70-130	11.12.2020 04:52	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-2 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-019

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.2020 13:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.2020 13:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.2020 13:17	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.12.2020 13:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.2020 13:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.2020 13:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.2020 13:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	148	%	70-130	11.12.2020 13:17	**	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.12.2020 13:17		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-3 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-020

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	185	4.97	mg/kg	11.12.2020 21:58		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: ARM

Analyst: ARM

Date Prep: 11.11.2020 17:00

% Moisture:

Seq Number: 3142072

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.12.2020 05:10	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.12.2020 05:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.12.2020 05:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.12.2020 05:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-130	11.12.2020 05:10		
o-Terphenyl	84-15-1	116	%	70-130	11.12.2020 05:10		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-3 (4')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-020

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.12.2020 13:38	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.12.2020 13:38	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.12.2020 13:38	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.12.2020 13:38	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.12.2020 13:38	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.12.2020 13:38	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.12.2020 13:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.12.2020 13:38		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.12.2020 13:38		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-4 (4')**
Lab Sample Id: 677577-021

Matrix: Soil
Date Collected: 11.09.2020 00:00

Date Received: 11.11.2020 15:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:
Basis: Wet Weight

Seq Number: 3142163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	212	5.02	mg/kg	11.12.2020 22:03		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:
Basis: Wet Weight

Seq Number: 3142071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 16:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 16:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 16:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 16:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	11.11.2020 16:51	
o-Terphenyl	84-15-1	111	%	70-130	11.11.2020 16:51	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-4 (4')**
Lab Sample Id: 677577-021

Matrix: Soil
Date Collected: 11.09.2020 00:00

Date Received: 11.11.2020 15:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:
Basis: Wet Weight

Seq Number: 3142132

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.12.2020 13:58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.12.2020 13:58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.12.2020 13:58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.12.2020 13:58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.12.2020 13:58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.12.2020 13:58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.12.2020 13:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.12.2020 13:58		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.12.2020 13:58		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-5 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-022

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	186	5.04	mg/kg	11.12.2020 22:08		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 17:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 17:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 17:49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 17:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	11.11.2020 17:49	
o-Terphenyl	84-15-1	106	%	70-130	11.11.2020 17:49	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-5 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-022

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 14:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 14:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 14:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 14:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 14:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 14:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 14:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.12.2020 14:18		
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.12.2020 14:18		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-6 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-023

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	190	4.99	mg/kg	11.12.2020 22:13		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.2020 18:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.2020 18:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.2020 18:08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.2020 18:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-130	11.11.2020 18:08		
o-Terphenyl	84-15-1	103	%	70-130	11.11.2020 18:08		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-6 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-023

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 16:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 16:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 16:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 16:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 16:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 16:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 16:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	11.12.2020 16:14	
4-Bromofluorobenzene	460-00-4	129	%	70-130	11.12.2020 16:14	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-7 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-024

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	187	5.03	mg/kg	11.12.2020 22:19		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.11.2020 18:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.11.2020 18:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.11.2020 18:28	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.11.2020 18:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	11.11.2020 18:28	
o-Terphenyl	84-15-1	109	%	70-130	11.11.2020 18:28	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-7 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-024

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 16:34	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 16:34	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 16:34	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 16:34	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 16:34	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 16:34	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 16:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.12.2020 16:34		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.12.2020 16:34		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-8 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-025

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 16:55

% Moisture:

Seq Number: 3142163

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	78.0	5.03	mg/kg	11.12.2020 22:24		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 18:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 18:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 18:46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 18:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	11.11.2020 18:46	
o-Terphenyl	84-15-1	99	%	70-130	11.11.2020 18:46	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-8 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-025

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.2020 16:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.2020 16:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.2020 16:55	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.12.2020 16:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.2020 16:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.2020 16:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.2020 16:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.12.2020 16:55		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.12.2020 16:55		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-9 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-026

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 17:10

% Moisture:

Seq Number: 3142164

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	82.0	4.99	mg/kg	11.12.2020 22:56		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.2020 19:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	11.11.2020 19:05	
o-Terphenyl	84-15-1	100	%	70-130	11.11.2020 19:05	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-9 (1.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-026

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.2020 17:15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.2020 17:15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.2020 17:15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.2020 17:15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.2020 17:15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.2020 17:15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.2020 17:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.12.2020 17:15		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.12.2020 17:15		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-10 (1.5')**
Lab Sample Id: 677577-027

Matrix: Soil
Date Collected: 11.09.2020 00:00

Date Received: 11.11.2020 15:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 17:10

% Moisture:
Basis: Wet Weight

Seq Number: 3142164

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.3	4.99	mg/kg	11.12.2020 23:11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:
Basis: Wet Weight

Seq Number: 3142071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 19:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 19:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 19:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 19:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	11.11.2020 19:24	
o-Terphenyl	84-15-1	97	%	70-130	11.11.2020 19:24	



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-10 (1.5')**
Lab Sample Id: 677577-027

Matrix: Soil
Date Collected: 11.09.2020 00:00

Date Received: 11.11.2020 15:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:
Basis: Wet Weight

Seq Number: 3142132

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.12.2020 17:36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.12.2020 17:36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.12.2020 17:36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.12.2020 17:36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.12.2020 17:36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.12.2020 17:36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.12.2020 17:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.12.2020 17:36		
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.12.2020 17:36		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-11 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-028

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 17:10

% Moisture:

Seq Number: 3142164

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	5.03	mg/kg	11.12.2020 23:17		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.2020 19:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.2020 19:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.2020 19:43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.2020 19:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	11.11.2020 19:43	
o-Terphenyl	84-15-1	106	%	70-130	11.11.2020 19:43	



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-11 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-028

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 08:00

% Moisture:

Seq Number: 3142132

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.2020 17:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.2020 17:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.2020 17:56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.12.2020 17:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.2020 17:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.2020 17:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.2020 17:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.12.2020 17:56		
1,4-Difluorobenzene	540-36-3	85	%	70-130	11.12.2020 17:56		



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-12 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-029

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 17:10

% Moisture:

Seq Number: 3142164

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	5.05	mg/kg	11.12.2020 23:22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.2020 20:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.2020 20:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.2020 20:02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.2020 20:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	11.11.2020 20:02	
o-Terphenyl	84-15-1	103	%	70-130	11.11.2020 20:02	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-12 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-029

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 13:00

% Moisture:

Seq Number: 3142137

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.12.2020 21:19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.12.2020 21:19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.12.2020 21:19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.12.2020 21:19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.12.2020 21:19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.12.2020 21:19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.12.2020 21:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.12.2020 21:19		
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.12.2020 21:19		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-13 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-030

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 17:10

% Moisture:

Seq Number: 3142164

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	4.96	mg/kg	11.12.2020 23:27		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.2020 20:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.2020 20:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.2020 20:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.2020 20:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	11.11.2020 20:21	
o-Terphenyl	84-15-1	102	%	70-130	11.11.2020 20:21	



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-13 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-030

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 13:00

% Moisture:

Seq Number: 3142137

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.2020 21:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.2020 21:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.2020 21:40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.12.2020 21:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.2020 21:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.2020 21:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.2020 21:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.12.2020 21:40		
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.12.2020 21:40		



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Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-14 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-031

Date Collected: 11.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 11.12.2020 17:10

% Moisture:

Seq Number: 3142164

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	142	4.97	mg/kg	11.12.2020 23:43		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.11.2020 15:30

% Moisture:

Seq Number: 3142071

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.11.2020 20:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.11.2020 20:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.11.2020 20:40	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.11.2020 20:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	11.11.2020 20:40	
o-Terphenyl	84-15-1	104	%	70-130	11.11.2020 20:40	



Certificate of Analytical Results 677577

Tetra Tech- Midland, Midland, TX

Osprey 10-601 Transfer Line

Sample Id: **SW-14 (2.5')**

Matrix: Soil

Date Received: 11.11.2020 15:00

Lab Sample Id: 677577-031

Date Collected: 11.09.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.12.2020 13:00

% Moisture:

Seq Number: 3142137

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.12.2020 22:00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.12.2020 22:00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.12.2020 22:00	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.12.2020 22:00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.12.2020 22:00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.12.2020 22:00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.12.2020 22:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.12.2020 22:00		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.12.2020 22:00		

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
Osprey 10-601 Transfer Line

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142225

Matrix: Solid

Prep Method: E300P

Date Prep: 11.12.2020

MB Sample Id: 7715061-1-BLK

LCS Sample Id: 7715061-1-BKS

LCSD Sample Id: 7715061-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	260	104	259	104	90-110	0	20	mg/kg	11.12.2020 16:57	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142163

Matrix: Solid

Prep Method: E300P

Date Prep: 11.12.2020

MB Sample Id: 7715091-1-BLK

LCS Sample Id: 7715091-1-BKS

LCSD Sample Id: 7715091-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	260	104	260	104	90-110	0	20	mg/kg	11.12.2020 19:51	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142164

Matrix: Solid

Prep Method: E300P

Date Prep: 11.12.2020

MB Sample Id: 7715092-1-BLK

LCS Sample Id: 7715092-1-BKS

LCSD Sample Id: 7715092-1-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	261	104	262	105	90-110	0	20	mg/kg	11.12.2020 22:45	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142225

Matrix: Soil

Prep Method: E300P

Date Prep: 11.12.2020

Parent Sample Id: 677578-066

MS Sample Id: 677578-066 S

MSD Sample Id: 677578-066 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	193	248	439	99	443	101	90-110	1	20	mg/kg	11.12.2020 17:13	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142225

Matrix: Soil

Prep Method: E300P

Date Prep: 11.12.2020

Parent Sample Id: 677578-076

MS Sample Id: 677578-076 S

MSD Sample Id: 677578-076 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1090	251	1290	80	1300	84	90-110	1	20	mg/kg	11.12.2020 18:27	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142163

Matrix: Soil

Prep Method: E300P

Date Prep: 11.12.2020

Parent Sample Id: 677577-006

MS Sample Id: 677577-006 S

MSD Sample Id: 677577-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	137	248	389	102	387	101	90-110	1	20	mg/kg	11.12.2020 20:07	

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

Osprey 10-601 Transfer Line

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142163

Matrix: Soil

Prep Method: E300P

Date Prep: 11.12.2020

Parent Sample Id: 677577-016

MS Sample Id: 677577-016 S

MSD Sample Id: 677577-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	138	253	398	103	397	102	90-110	0	20	mg/kg	11.12.2020 21:21	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142164

Matrix: Soil

Prep Method: E300P

Date Prep: 11.12.2020

Parent Sample Id: 677577-026

MS Sample Id: 677577-026 S

MSD Sample Id: 677577-026 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	82.0	250	340	103	339	103	90-110	0	20	mg/kg	11.12.2020 23:01	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3142164

Matrix: Soil

Prep Method: E300P

Date Prep: 11.12.2020

Parent Sample Id: 677687-002

MS Sample Id: 677687-002 S

MSD Sample Id: 677687-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.7	252	274	104	273	104	90-110	0	20	mg/kg	11.13.2020 00:15	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3142071

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.11.2020

MB Sample Id: 7715008-1-BLK

LCS Sample Id: 7715008-1-BKS

LCSD Sample Id: 7715008-1-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	912	91	1060	106	70-130	15	20	mg/kg	11.11.2020 12:40	
Diesel Range Organics (DRO)	<50.0	1000	988	99	1090	109	70-130	10	20	mg/kg	11.11.2020 12:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		119		129		70-130	%	11.11.2020 12:40
o-Terphenyl	112		122		119		70-130	%	11.11.2020 12:40

Analytical Method: TPH By SW8015 Mod

Seq Number: 3142072

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.11.2020

MB Sample Id: 7715032-1-BLK

LCS Sample Id: 7715032-1-BKS

LCSD Sample Id: 7715032-1-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	910	91	1120	112	70-130	21	20	mg/kg	11.11.2020 21:38	F
Diesel Range Organics (DRO)	<50.0	1000	973	97	1120	112	70-130	14	20	mg/kg	11.11.2020 21:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		117		126		70-130	%	11.11.2020 21:38
o-Terphenyl	130		117		129		70-130	%	11.11.2020 21:38

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

Osprey 10-601 Transfer Line

Analytical Method: TPH By SW8015 Mod

Seq Number: 3142071

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.11.2020

MB Sample Id: 7715008-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

**MB
Result**

<50.0

Units

mg/kg

**Analysis
Date**

11.11.2020 12:02

Flag**Analytical Method:** TPH By SW8015 Mod

Seq Number: 3142072

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.11.2020

MB Sample Id: 7715032-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

**MB
Result**

<50.0

Units

mg/kg

**Analysis
Date**

11.11.2020 21:19

Flag**Analytical Method:** TPH By SW8015 Mod

Seq Number: 3142071

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.11.2020

Parent Sample Id: 677462-001

MS Sample Id: 677462-001 S

MSD Sample Id: 677462-001 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

**Parent
Result**

<50.0

**Spike
Amount**

999

**MS
Result**

934

**MS
%Rec**

93

**MSD
Result**

891

**MSD
%Rec**

89

Limits

70-130

%RPD

5

**RPD
Limit**

20

Units

mg/kg

**Analysis
Date**

11.11.2020 13:39

Flag

Diesel Range Organics (DRO)

<50.0

999

1020

102

986

99

70-130

3

20

mg/kg

11.11.2020 13:39

Surrogate

1-Chlorooctane

**MS
%Rec**

119

**MS
Flag****MSD
%Rec**

110

**MSD
Flag****Limits**

70-130

Units

%

**Analysis
Date**

11.11.2020 13:39

o-Terphenyl

124

121

70-130

%

11.11.2020 13:39

Analytical Method: TPH By SW8015 Mod

Seq Number: 3142072

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.11.2020

Parent Sample Id: 677577-001

MS Sample Id: 677577-001 S

MSD Sample Id: 677577-001 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

**Parent
Result**

<49.9

**Spike
Amount**

998

**MS
Result**

891

**MS
%Rec**

89

**MSD
Result**

878

**MSD
%Rec**

88

Limits

70-130

%RPD

1

**RPD
Limit**

20

Units

mg/kg

**Analysis
Date**

11.11.2020 22:35

Flag

Diesel Range Organics (DRO)

<49.9

998

936

94

933

94

70-130

0

20

mg/kg

11.11.2020 22:35

Surrogate

1-Chlorooctane

**MS
%Rec**

98

**MS
Flag****MSD
%Rec**

116

**MSD
Flag****Limits**

70-130

Units

%

**Analysis
Date**

11.11.2020 22:35

o-Terphenyl

113

107

70-130

%

11.11.2020 22:35

 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

Osprey 10-601 Transfer Line

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142010

Matrix: Solid

Prep Method: SW5035A

Date Prep: 11.11.2020

MB Sample Id: 7714944-1-BLK

LCS Sample Id: 7714944-1-BKS

LCSD Sample Id: 7714944-1-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	0.0778	78	0.0797	80	70-130	2	35	mg/kg	11.11.2020 11:51	
Toluene	<0.00200	0.100	0.0806	81	0.0834	83	70-130	3	35	mg/kg	11.11.2020 11:51	
Ethylbenzene	<0.00200	0.100	0.0884	88	0.0914	91	70-130	3	35	mg/kg	11.11.2020 11:51	
m,p-Xylenes	<0.00400	0.200	0.173	87	0.180	90	70-130	4	35	mg/kg	11.11.2020 11:51	
o-Xylene	<0.00200	0.100	0.0862	86	0.0897	90	70-130	4	35	mg/kg	11.11.2020 11:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		101		99		70-130	%	11.11.2020 11:51
4-Bromofluorobenzene	112		102		100		70-130	%	11.11.2020 11:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142132

Matrix: Solid

Prep Method: SW5035A

Date Prep: 11.12.2020

MB Sample Id: 7715096-1-BLK

LCS Sample Id: 7715096-1-BKS

LCSD Sample Id: 7715096-1-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	0.0744	74	0.0740	74	70-130	1	35	mg/kg	11.11.2020 22:45	
Toluene	<0.00200	0.100	0.0785	79	0.0781	78	70-130	1	35	mg/kg	11.11.2020 22:45	
Ethylbenzene	<0.00200	0.100	0.0871	87	0.0869	87	70-130	0	35	mg/kg	11.11.2020 22:45	
m,p-Xylenes	<0.00400	0.200	0.170	85	0.170	85	70-130	0	35	mg/kg	11.11.2020 22:45	
o-Xylene	<0.00200	0.100	0.0855	86	0.0857	86	70-130	0	35	mg/kg	11.11.2020 22:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		99		98		70-130	%	11.11.2020 22:45
4-Bromofluorobenzene	112		101		103		70-130	%	11.11.2020 22:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142137

Matrix: Solid

Prep Method: SW5035A

Date Prep: 11.12.2020

MB Sample Id: 7715097-1-BLK

LCS Sample Id: 7715097-1-BKS

LCSD Sample Id: 7715097-1-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	0.0739	74	0.0717	72	70-130	3	35	mg/kg	11.12.2020 18:58	
Toluene	<0.00200	0.100	0.0766	77	0.0749	75	70-130	2	35	mg/kg	11.12.2020 18:58	
Ethylbenzene	<0.00200	0.100	0.0837	84	0.0817	82	70-130	2	35	mg/kg	11.12.2020 18:58	
m,p-Xylenes	<0.00400	0.200	0.158	79	0.155	78	70-130	2	35	mg/kg	11.12.2020 18:58	
o-Xylene	<0.00200	0.100	0.0803	80	0.0795	80	70-130	1	35	mg/kg	11.12.2020 18:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		101		100		70-130	%	11.12.2020 18:58
4-Bromofluorobenzene	107		100		101		70-130	%	11.12.2020 18:58

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 Osprey 10-601 Transfer Line

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142010

Matrix: Soil

Prep Method: SW5035A

Date Prep: 11.11.2020

Parent Sample Id: 677462-001

MS Sample Id: 677462-001 S

MSD Sample Id: 677462-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0802	81	0.0755	76	70-130	6	35	mg/kg	11.11.2020 12:32	
Toluene	<0.00199	0.0994	0.0846	85	0.0813	81	70-130	4	35	mg/kg	11.11.2020 12:32	
Ethylbenzene	<0.00199	0.0994	0.0938	94	0.0910	91	70-130	3	35	mg/kg	11.11.2020 12:32	
m,p-Xylenes	<0.00398	0.199	0.186	93	0.183	92	70-130	2	35	mg/kg	11.11.2020 12:32	
o-Xylene	<0.00199	0.0994	0.0929	93	0.0914	91	70-130	2	35	mg/kg	11.11.2020 12:32	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		70-130	%	11.11.2020 12:32
4-Bromofluorobenzene	105		108		70-130	%	11.11.2020 12:32

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142132

Matrix: Soil

Prep Method: SW5035A

Date Prep: 11.12.2020

Parent Sample Id: 677577-009

MS Sample Id: 677577-009 S

MSD Sample Id: 677577-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0632	64	0.0676	68	70-130	7	35	mg/kg	11.11.2020 23:26	X
Toluene	<0.00198	0.0992	0.0679	68	0.0794	79	70-130	16	35	mg/kg	11.11.2020 23:26	X
Ethylbenzene	<0.00198	0.0992	0.0741	75	0.0883	88	70-130	17	35	mg/kg	11.11.2020 23:26	
m,p-Xylenes	<0.00397	0.198	0.149	75	0.183	92	70-130	20	35	mg/kg	11.11.2020 23:26	
o-Xylene	<0.00198	0.0992	0.0742	75	0.0919	92	70-130	21	35	mg/kg	11.11.2020 23:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		93		70-130	%	11.11.2020 23:26
4-Bromofluorobenzene	106		111		70-130	%	11.11.2020 23:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142137

Matrix: Soil

Prep Method: SW5035A

Date Prep: 11.12.2020

Parent Sample Id: 677577-029

MS Sample Id: 677577-029 S

MSD Sample Id: 677577-029 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	0.0706	71	0.0711	71	70-130	1	35	mg/kg	11.12.2020 19:39	
Toluene	<0.00200	0.100	0.0727	73	0.0798	80	70-130	9	35	mg/kg	11.12.2020 19:39	
Ethylbenzene	<0.00200	0.100	0.0768	77	0.0861	86	70-130	11	35	mg/kg	11.12.2020 19:39	
m,p-Xylenes	<0.00401	0.200	0.149	75	0.173	87	70-130	15	35	mg/kg	11.12.2020 19:39	
o-Xylene	<0.00200	0.100	0.0754	75	0.0875	88	70-130	15	35	mg/kg	11.12.2020 19:39	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		96		70-130	%	11.12.2020 19:39
4-Bromofluorobenzene	103		115		70-130	%	11.12.2020 19:39

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

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

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

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

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

077577

Page 1 of 4

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: <i>OSorey 10-601 Transfer Line</i>			
Project Location: Lea County, New Mexico		Project #: 212C-MD-02335	
Invoice to: Todd Wells		Sampler Signature: Devin Dominguez	
Receiving Laboratory: Xenco		Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
										YEAR: 2020			
	Bottomhole-1 (4')	11/9/2020		X				X				1	N
	Bottomhole-2 (4')	11/9/2020		X				X				1	N
	Bottomhole-3 (4')	11/9/2020		X				X				1	N
	Bottomhole-4 (1.5')	11/9/2020		X				X				1	N
	Bottomhole-5 (1.5')	11/9/2020		X				X				1	N
	Bottomhole-6 (1.5')	11/9/2020		X				X				1	N
	Bottomhole-7 (1.5')	11/9/2020		X				X				1	N
	Bottomhole-8 (1.5')	11/9/2020		X				X				1	N
	Bottomhole-9 (1.5')	11/9/2020		X				X				1	N
	Bottomhole-10 (1.5')	11/9/2020		X				X				1	N

LAB USE ONLY	REMARKS:	ANALYSIS REQUEST (Circle or Specify Method No.)																					
		BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	Hold	
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					
		X	X	X	X													X					

LAB USE ONLY	REMARKS:
Sample Temperature	STANDARD
5.2	☒ RUSH: Same Day 24 hr 48 hr 72 hr ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Mike Carmona

} Osprey 10-601 Transfer Line

212C-MD-02335

Todd Wells

Xenco

Devin Dominguez

Comments:

[illegible]

(Circle or Specify Method No.)

REMARKS:

LAB USE ONLY

Sample Temperature

5.2

☐ Special Report Limits or TRRP Report

☐ Rush Charges Authorized

(Circle) ~~HAND DELIVERED~~ FEDEX UPS Tracking #

ORIGINAL COPY

Analysis Request of Custody Record



Tetra Tech, Inc.

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

077577

Page 3 of 4

Client Name: EOG		Site Manager: Mike Carmona					
Project Name: Osprey 10-601 Transfer Line							
Project Location: Lea County, New Mexico		Project #: 212C-MD-02335					
Invoice to: Todd Wells							
Receiving Laboratory: Xenco		Sampler Signature: Devin Dominguez					
Comments:							
LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
		YEAR: 2020	DATE				
	SW-4 (4)		11/9/2020		X	1	N
	SW-5 (1.5)		11/9/2020		X	1	N
	SW-6 (1.5)		11/9/2020		X	1	N
	SW-7 (1.5)		11/9/2020		X	1	N
	SW-8 (1.5)		11/9/2020		X	1	N
	SW-9 (1.5)		11/9/2020		X	1	N
	SW-10 (1.5)		11/9/2020		X	1	N
	SW-11 (2.5)		11/9/2020		X	1	N
	SW-12 (2.5)		11/9/2020		X	1	N
	SW-13 (2.5)		11/9/2020		X	1	N
Relinquished by: [Signature]		Date: 11/11	Time:	Received by: [Signature]		Date: 11/11/2020	Time: 15:00
Relinquished by:		Date:	Time:	Received by:		Date:	Time:
Relinquished by:		Date:	Time:	Received by:		Date:	Time:

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

LAB USE ONLY

Sample Temperature

5.2

REMARKS:

STANDARD

☒ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

677577

Page 4 of 4

Client Name:

EOG

Site Manager:

Mike Carmona

Project Name:

1 Osprey 10-601 Transfer Line

Project Location:

Lea County, New Mexico

Project #:

212C-MD-02335

Invoice to:

Todd Wells

Receiving Laboratory:

Xenco

Sampler Signature:

Devin Dominguez

Comments:

SAMPLE IDENTIFICATION

LAB #
(LAB USE ONLY)

SW-14 (2.5)

DATE

11/9/2020

TIME

WATER
SOIL

X

HCL
HNO₃
ICE
None

X

CONTAINERS

1

FILTERED (Y/N)

N

ANALYSIS REQUEST

(Circle or Specify Method No.)

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

Hold

Relinquished by:

Date: Time:

Relinquished by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

Received by:

Date: Time:

Received by:

Date: Time:

LAB USE ONLY

Sample Temperature

5.2

REMARKS:

STANDARD

☒ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 11.11.2020 03.00.00 PM

Work Order #: 677577

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)?	5.2
#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: 11.11.2020

Checklist reviewed by:



Jessica Kramer

Date: 11.11.2020

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 18816

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 18816
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
ceads	None	6/28/2021