Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2032141310
District RP	
Facility ID	
Application ID	

Closure

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

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

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

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

Printed Name: Todd Wells Title: Environmental Specialist

Signature: Todd Wells Date: 8/23/21

email: Todd_Wells@eogresources.com Telephone: (432) 686-3613

OCD Only

Received by: Chad Hensley Date: 09/22/2021

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

Closure Approved by: Chad Hensley Date: 09/22/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

SITE INFORMATION

Report Type: Closure Report NRM2032141310

General Site Information:						
Site:	**Whirling Wind 14 North CTB - #702H Separator**					
Company:	**EOG Resources**					
Section, Township and Range	**Unit O**	**Sec. 11**	**T 26S**	**R 33E**		
Lease Number:						
County:	**Lea County**					
GPS:	**32.05321**			**-103.53986**		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	At the intersection of 2 and Dinwiddle Road, head south on Dinwiddle road for 0.81 miles. Turn left onto lease road, follow for 0.29 miles to location.					

Release Data:	
Date Released:	10/22/2020
Type Release:	Oil & Produced Water
Source of Contamination:	Leaking 2" "T"
Fluid Released:	5 bbl oil & 5 bbl water
Fluids Recovered:	2 bbl oil & 1 bbl water

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

Site Characterization	
Depth to Groundwater:	*135' below surface*
Karst Potential:	*Low*

Recommended Remedial Action Levels (RRALs)				
Benzene	***Total BTEX***	***TPH (GRO+DRO)***	***TPH (GRO+DRO+MRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*100 mg/kg*	*100 mg/kg*	*600 mg/kg*

TETRA TECH

August 23, 2021

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

Re: Closure Report for the EOG Resources, Whirling Wind 14 North CTB – #702H Separator, Unit O, Section 11, Township 26 South, Range 33 East, Lea County, New Mexico.
NRM2032141310

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, Whirling Wind 14 North CTB - #702H Separator, Unit O, Section 11, Township 26 South, Range 33 East, Lea County, New Mexico (Site). The site coordinates are 32.053210°, -103.539860°. 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 22, 2020, and released approximately 5 barrels of crude oil and 5 barrels of produced water due to a leaking 2" "T". Approximately 2 barrels of crude oil and 1 barrel of produced water was recovered. The release occurred on the pad, impacting an area measuring approximately 150' X 112'. The C-141 form is included in Appendix A.

Site Characterization

A site characterization was performed for the site and no lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. Additionally, the site is located in a low karst potential area. The nearest well is listed on the New Mexico Office of the State Engineer (NMOSE) groundwater database in section 14, approximately 0.28 miles from the site, and has a reported depth to groundwater of 135' below surface. Site characterization information is found in Appendix B.

Tetra Tech
901 West Wall Street, Suite 100, Midland, TX 79701
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.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). Based upon the site characterization, the proposed RRAL for TPH is 100 mg/kg (GRO + DRO + ORO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.

Soil Assessment and Analytical Results

On October 29, 2020, Tetra Tech personnel were onsite to evaluate and sample the release area. A total of four (4) auger holes (AH-1 through AH-4) were installed in the release footprint with depths ranging from surface to 0.5' below surface. Additionally, four (4) hoizontals were installed to horizontally delineate the spill footprint. Selected samples were submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The sample locations are shown in Figure 3.

Referring to Table 1, none of the samples reported benzene concentrations above the RRALs. However, all auger holes (AH-1 through AH-4) reported TPH concentrations above RRALs, concentrations ranging from 6,160 mg/kg to 20,300 mg/kg, at depths of 0.5' below surface. The areas of auger holes (AH-2 through AH-4) reported chloride concentrations above the RRALs, with concentrations ranging from 1,200 mg/kg to 10,000 mg/kg, at depths of 0.5' below surface. The area of auger hole (AH-1) reported a BTEX concentration above RRALs, with a concentration of 147 mg/kg, at a depth of 0.5' below surface. However, vertical delineation was not found in the areas of auger holes (AH-1 through AH-4). Additionally, none of the horizontal samples (H-1 through H-4) reported benzene, BTEX, or chloride concentrations above the RRALs. However, the area of horizontal sample (H-3) reported a TPH concentration of 111 mg/kg at a depth of 0.5' below surface.

Remediation and Reclamation Activities

Tetra Tech personnel were onsite November 23, 2020 to December 2, 2020, to supervise the remediation activities and collect confirmation samples. The impacted areas were excavated to depths ranging from 1.0' below surface and 3.0' below surface, as shown on Figure 4 and Table 2.

Confirmation bottom hole and sidewall samples were collected every 200 square feet, a total of 18 bottom hole samples (BH-1 through BH-18) and 13 sidewall samples (SW-1 through SW-13) were collected to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 modified, BTEX method 8021B, and Chloride by EPA Method 300.0. Additionally, the bottom hole (BH-18) was sampled on December 2, 2020, however, the sample was mislabeled as bottom hole (BH-19). The sampling results are summarized in Table 2. Copies of laboratory analysis and chain-of-custody

TETRA TECH

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, TPH, and chloride concentrations below the RRALs.

Approximately 358 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

Conclusion

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

Respectfully submitted,
TETRA TECH

Brittany Long,
Project Manager

Clair Gonzales, P.G.
Senior Project Manager

TETRA TECH

Figures

SITE LOCATION

N
W E
S

0 2.5 5 Miles

Approximate Scale in Miles

Source: ESRI Basemap - Streets, 2020.

OVERVIEW MAP
WHIRLING WIND 14 NORTH CTB 702
Property Located at coordinates 32.053232°, -103.539915°
LEA COUNTY, NEW MEXICO

eog resources

Project #:
212C-MD-02349

FIGURE
1

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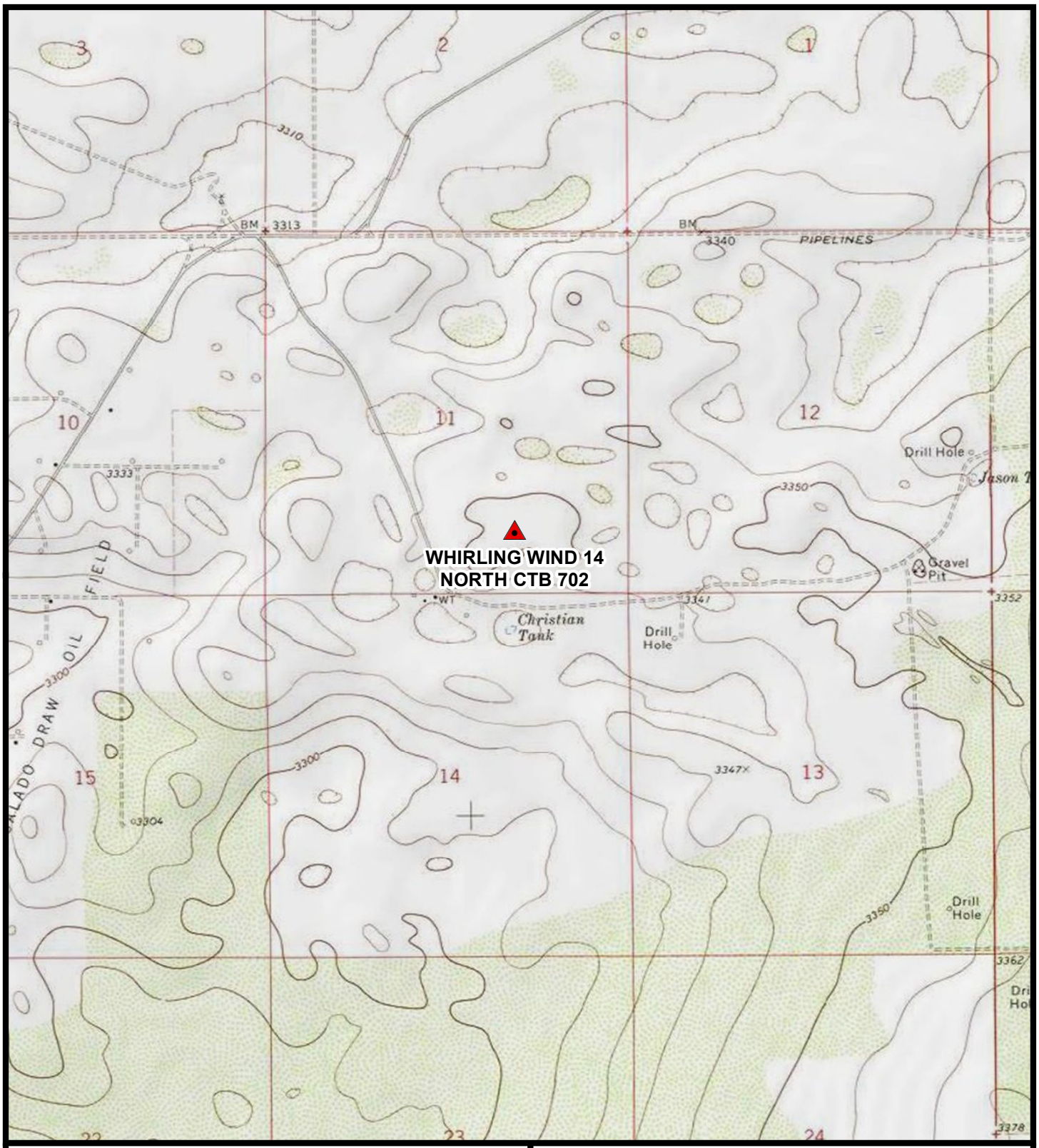

SITE LOCATION

N
W E
S

0 1,000 2,000 Feet

Approximate Scale in Feet

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

TOPOGRAPHIC MAP
WHIRLING WIND 14 NORTH CTB 702
Property Located at coordinates 32.053232°, -103.539915°
LEA COUNTY, NEW MEXICO

eog resources

Project #:
212C-MD-02349

FIGURE
2

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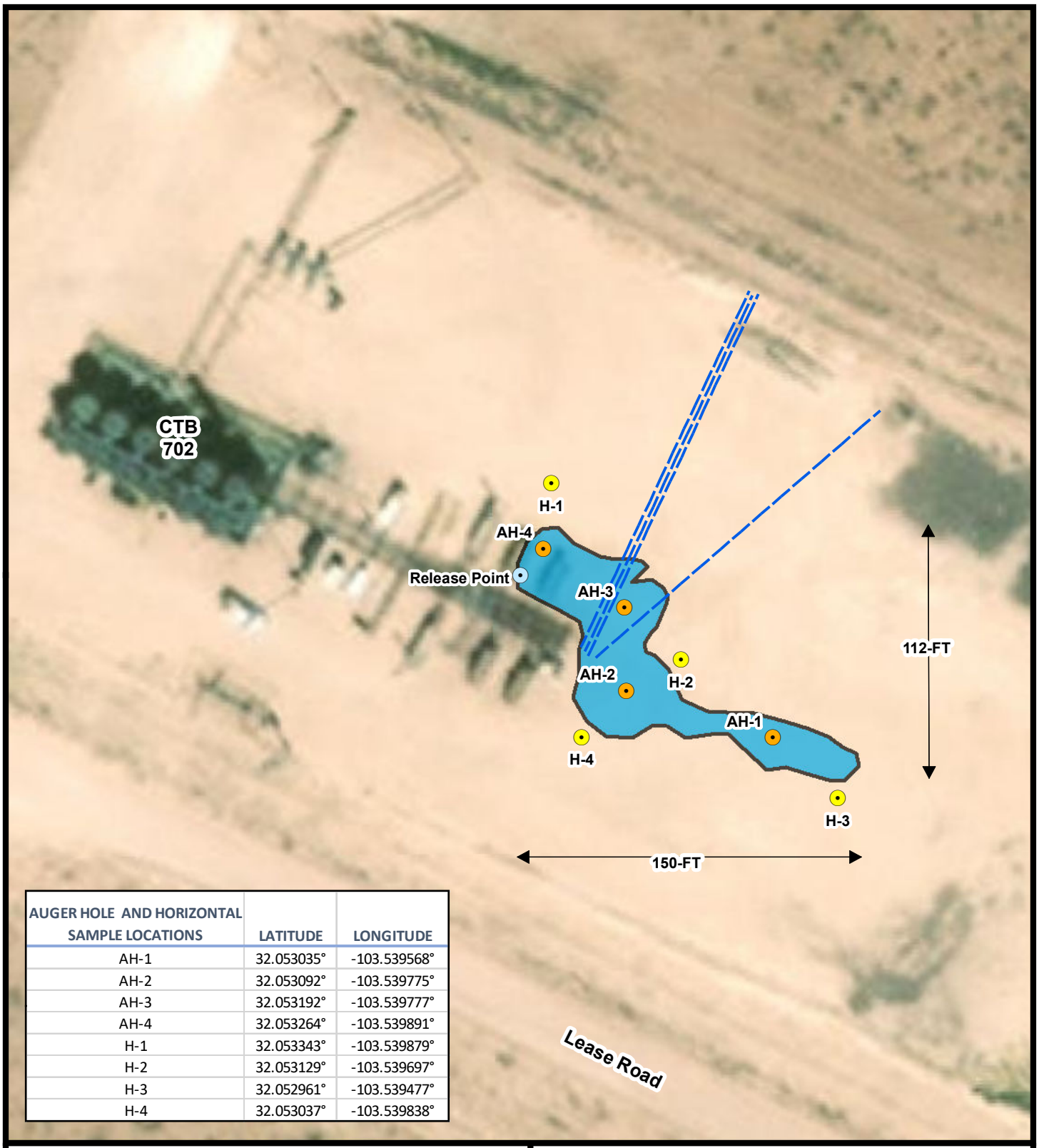

AUGER HOLE AND HORIZONTAL SAMPLE LOCATIONS	LATITUDE	LONGITUDE
AH-1	32.053035°	-103.539568°
AH-2	32.053092°	-103.539775°
AH-3	32.053192°	-103.539777°
AH-4	32.053264°	-103.539891°
H-1	32.053343°	-103.539879°
H-2	32.053129°	-103.539697°
H-3	32.052961°	-103.539477°
H-4	32.053037°	-103.539838°

HORIZONTAL SAMPLE LOCATION

AUGER HOLE SAMPLE LOCATION

RELEASE POINT

UNDERGROUND PIPELINE

SPILL AREA

N
W
E
S

0 30 60 Feet

Approximate Scale in Feet

Source: ESRI Basemap - Imagery 2019.

SPILL ASSESSMENT MAP
WHIRLING WIND 14 NORTH CTB 702
Property Located at coordinates 32.053232°, -103.539915°
LEA COUNTY, NEW MEXICO

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Project #:
212C-MD-02349

FIGURE
3

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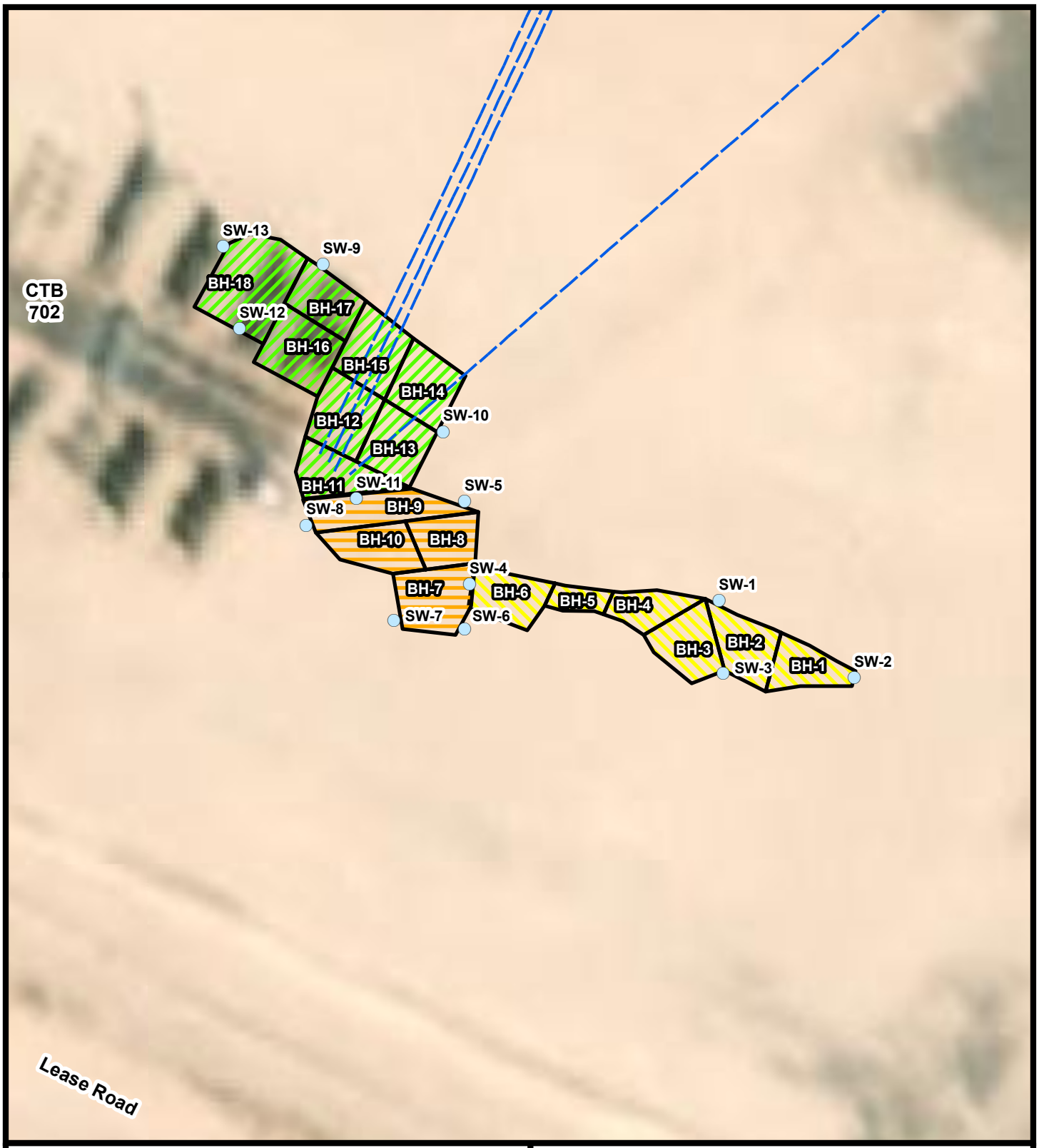

BH BOTTOMHOLE SAMPLE LOCATIONS

SIDEWALL DESIGNATION

UNDERGROUND PIPELINE

1-1.5' EXCAVATED DEPTH AREA

1.5-2' EXCAVATED DEPTH AREA

2.5-3' EXCAVATED DEPTH AREA

Source: ESRI Basemap - Imagery 2019.

N W E S

0 15 30 Feet

Approximate Scale in Feet

EXCAVATION AREA AND DEPTH MAP
WHIRLING WIND 14 NORTH CTB 702
Property Located at coordinates 32.053232°, -103.539915°
LEA COUNTY, NEW MEXICO

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Project #:
212C-MD-02349

FIGURE
4

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Tables

Table 1
EOG
Whirling Wind 14 North CTB 702
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	10/29/2020	0-0.5	X		**4,530**	**14,300**	**1460**	**20,300**	0.00867	20.7	0.0152	**126**	**147**	380
AH-2	10/29/2020	0-0.5	X		**2,160**	**5,990**	**390**	**8,540**	0.0247	9.88	0.0122	1.06	11.0	**1,200**
AH-3	10/29/2020	0-0.5	X		**720**	**5,060**	**376**	**6,160**	<0.00201	0.132	0.00511	0.437	0.574	**3,560**
AH-4	10/29/2020	0-0.5	X		**932**	**6,010**	**419**	**7,360**	0.00662	0.244	0.00775	0.895	1.15	**10,000**
Horizontal 1	10/29/2020	0-0.5	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	463
Horizontal 2	10/29/2020	0-0.5	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	70.3
Horizontal 3	10/29/2020	0-0.5	X		<49.8	**111**	<49.8	**111**	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	27.8
Horizontal 4	10/29/2020	0-0.5	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	39.6

(-) Not Analyzed

Proposed Excavation

Table 2
EOG Resources
Whirling Wind 14 North CTB 702
Lea County, New Mexico

Sample ID	Sample Date	Excavtion Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Bottom Hole-1	11/23/2020	1.0'	X	-	<50.0	90.6	<50.0	90.6	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	91.2
Bottom Hole-2	11/23/2020	1.0'	X	-	<49.9	68.6	<49.9	68.6	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	89.7
Bottom Hole-3	11/23/2020	1.0'	-	X	<49.9	116	<49.9	**116**	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	136
	12/2/2020	1.5'	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	8.78
Bottom Hole-4	11/23/2020	1.0'	X	-	<50.0	59.3	<50.0	59.3	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	144
Bottom Hole-5	11/23/2020	1.0'	X	-	<50.0	79.8	<50.0	79.8	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	90.9
Bottom Hole-6	11/23/2020	1.0'	X	-	<49.9	53.5	<49.9	53.5	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	112
Bottom Hole-7	11/23/2020	1.5'	X	-	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	69.6
Bottom Hole-8	11/23/2020	1.5'	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	43.6
Bottom Hole-9	11/23/2020	1.5'	-	X	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	**974**
	12/2/2020	1.5'	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	10.3
Bottom Hole-10	11/23/2020	1.5'	-	X	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.002010	<0.002010	**707**
	12/2/2020	1.5'	X	-	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	5.84
Bottom Hole-11	11/23/2020	2.5'	-	X	<49.8	62.4	<49.8	62.4	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	**641**
	12/2/2020	3.0'	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	7.84
Bottom Hole-12	11/23/2020	2.5'	-	X	<49.8	132	<49.8	**132**	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	**786**
	12/2/2020	3.0'	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.002020	<0.002020	8.26
Bottom Hole-13	11/23/2020	2.5'	-	X	<49.9	122	<49.9	**122**	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	**696**
	12/2/2020	3.0'	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	7.56
Bottom Hole-14	11/23/2020	2.5'	X	-	<50.0	58.8	<50.0	58.8	<0.00202	<0.00202	<0.00202	<0.002020	<0.002020	548
Bottom Hole-15	11/23/2020	2.5'	X	-	<50.0	72.8	<50.0	72.8	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	587
Bottom Hole-16	11/23/2020	2.5'	-	X	<49.9	51.4	<49.9	51.4	<0.00202	<0.00202	<0.00202	<0.002020	<0.002020	**787**
	12/2/2020	3.0'	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.002020	<0.002020	7.41
Bottom Hole-17	11/23/2020	2.5'	-	X	<50.0	118	<50.0	**118**	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	**755**
	12/2/2020	3.0'	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.002010	<0.002010	8.02
Bottom Hole-18	11/23/2020	2.5'	-	X	<49.9	241	<49.9	**241**	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	530
	12/2/2020	3.0'	X	-	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.002010	<0.002010	8.08

Table 2
EOG Resources
Whirling Wind 14 North CTB 702
Lea County, New Mexico

Sample ID	Sample Date	Excavtion Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Sidewall-1	11/23/2020	-	-	X	<49.8	55.0	<49.8	55.0	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	**707**
	12/2/2020	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	11.0
Sidewall-2	11/23/2020	-	-	X	<49.9	205	<49.9	**205**	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	533
	12/2/2020	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	9.38
Sidewall-3	11/23/2020	-	-	X	<50.0	511	60.2	**571**	<0.00198	<0.00198	<0.00198	<0.001980	<0.001980	69.9
	12/2/2020	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.002020	<0.002020	7.98
Sidewall-4	11/23/2020	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	56.8
Sidewall-5	11/23/2020	-	X	-	<50.0	65.0	<50.0	65.0	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	62.9
Sidewall-6	11/23/2020	-	X	-	<50.0	57.2	<50.0	57.2	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	41.0
Sidewall-7	11/23/2020	-	X	-	<49.9	52.0	<49.9	52.0	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	61.4
Sidewall-8	11/23/2020	-	X	-	<50.0	54.0	<50.0	54.0	<0.00202	<0.00202	<0.00202	<0.002020	<0.002020	143
Sidewall-9	11/23/2020	-	-	X	<50.0	127	<50.0	**127**	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	82.4
	12/2/2020	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	7.89
Sidewall-10	11/23/2020	-	X	-	<50.0	58.2	<50.0	58.2	<0.00199	<0.00199	<0.00199	<0.001990	<0.001990	69.4
Sidewall-11	11/23/2020	-	X	-	<49.9	54.5	<49.9	54.5	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	49.3
Sidewall-12	11/23/2020	-	-	X	<50.0	113	<50.0	**113**	<0.00201	<0.00201	<0.00201	<0.002010	<0.002010	59.8
	12/2/2020	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.002010	<0.002010	7.48
Sidewall-13	11/23/2020	-	-	X	<49.8	114	<49.8	**114**	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	68.3
	12/2/2020	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.002000	<0.002000	8.11

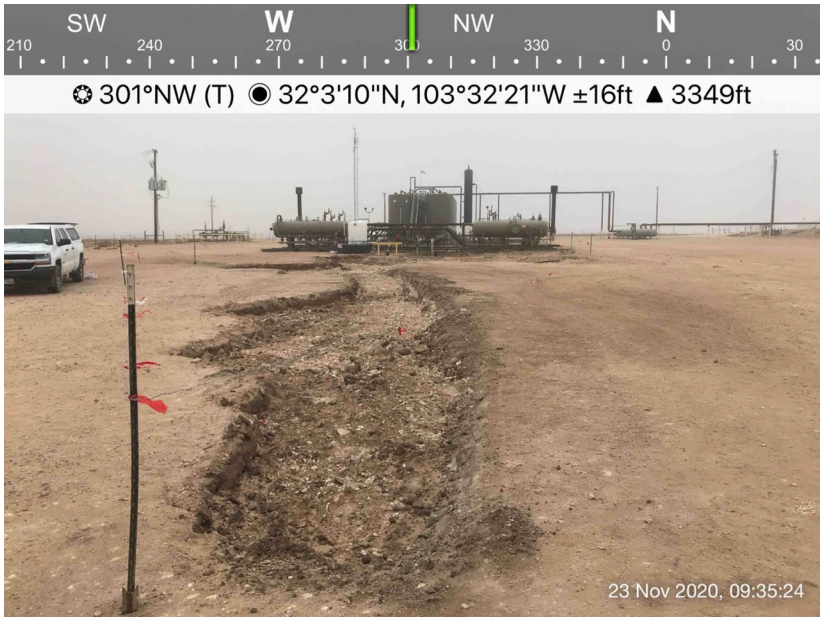
(-) Not Analyzed
Exceeds Thresholds

TETRA TECH

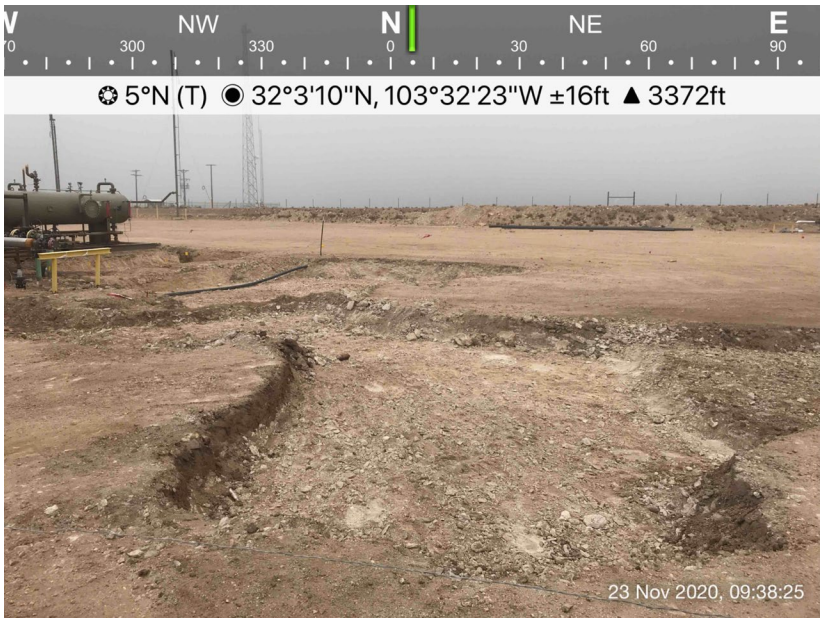
Photographic Documentation

EOG Resources
Whirling Wind 14 North CTB - #702H Separator
Lea County, New Mexico

TETRA TECH



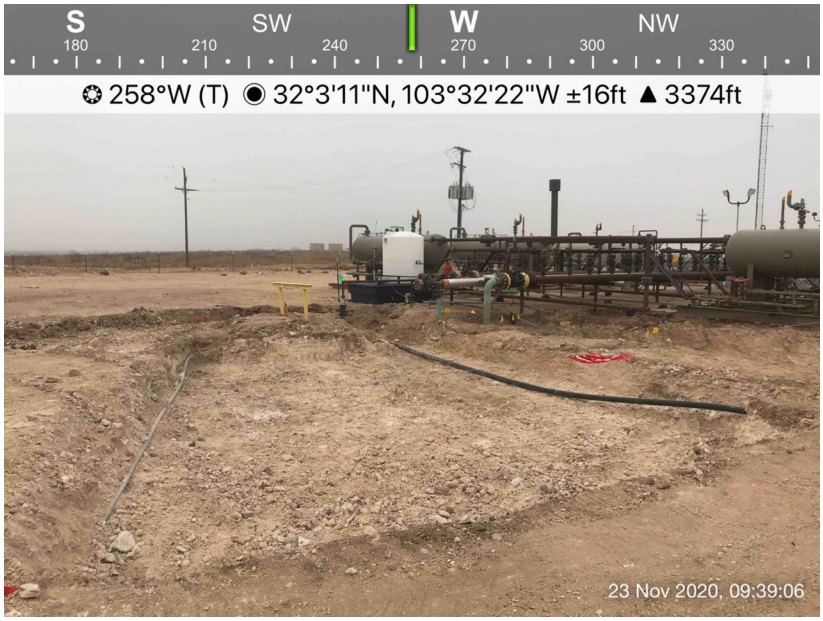
View of Remediation Activities – View Northwest



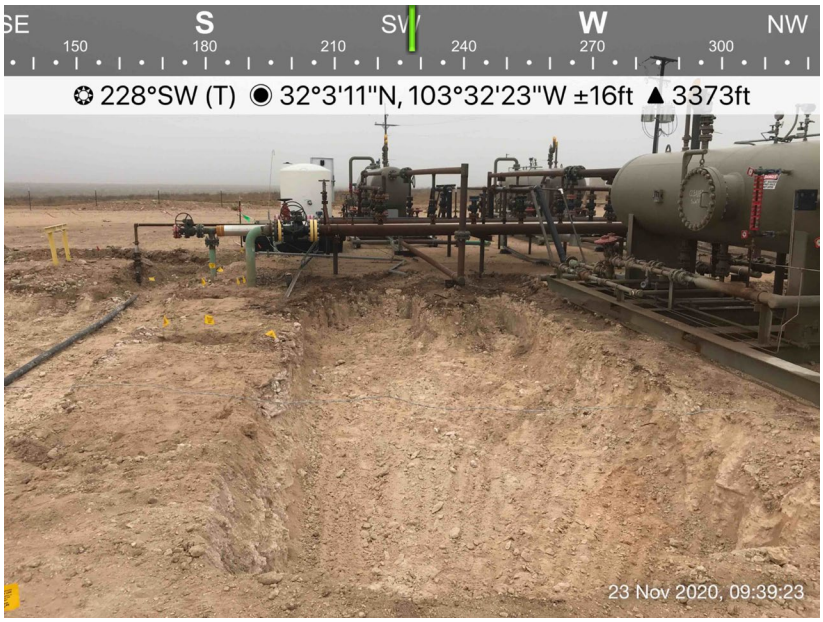
View of Remediation Activities – View North

EOG Resources
Whirling Wind 14 North CTB - #702H Separator
Lea County, New Mexico

TETRA TECH



View of Remediation Activities – View West



View of Remediation Activities – View Southwest

EOG Resources
Whirling Wind 14 North CTB - #702H Separator
Lea County, New Mexico

TETRA TECH

View of Remediation Activities – View South

TETRA TECH

Appendix A

C-141 Document

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NRM2032141310
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 32.053210° Longitude -103.539860°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Whirling Wind 14 North CTB - #702H Separator	Site Type CTB
Date Release Discovered 10/22/20	API# *(if applicable)* 30-025-42934

Unit Letter	Section	Township	Range	County
O	11	26S	33E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 5	Volume Recovered (bbls) 2
☒ 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: Lease operator arrived on location to find the 2-inch tee leaking on the Whirling Wind 11 Fed Com #702H separator. Approximately 10 bbls of produced water and oil was released on the pad and 3 bbls recovered.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2032141310
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 not 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: Todd Wells Title: Environmental Specialist

Signature: Todd Wells Date: 11-3-20

email: Todd_Wells@eogresources.com Telephone: (432) 686-3613

OCD Only

Received by: Ramona Marcus Date: 11/16/2020

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

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: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

TETRA TECH

Appendix B

Site Characterization Documents

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 02293	2	2	1	14	26S	33E	637501	3546975

Driller License:	122	**Driller Company:**	UNKNOWN		
Driller Name:	UNKNOWN				
Drill Start Date:		**Drill Finish Date:**	12/31/1949	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	8.00	**Depth Well:**	200 feet	**Depth Water:**	135 feet

Click to hideNews Bulletins

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

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320342103331401

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

USGS 320342103331401 26S.33E.03.444113

Lea County, New Mexico
Latitude 32°03'42", Longitude 103°33'14" NAD27
Land-surface elevation 3,334 feet above NAVD88
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) 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
1970-12-07		D	111.33			2	P	U		U	A
1976-01-08		D	110.80			2		U		U	A
1981-03-24		D	110.22			2	S	U		U	A
1986-03-04		D	113.00			2		U		U	A
1991-06-12		D	113.00			2		U		U	A
1996-03-06		D	112.44			2		S		U	A
2001-02-27		D	112.40			2		S		U	A
2006-02-07	10:47 MST	m	123.88			2		S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Status	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	S	Measured by personnel of reporting 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
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for New Mexico: Water Levels
URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: New Mexico Water Data Maintainer
Page Last Modified: 2020-10-28 14:17:21 EDT
0.28 0.25 nadww01

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-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02270	CUB	LE	1	1	2	27	26S	33E	636063	3543722	150	125	25
C 02273	CUB	LE		1	2	21	26S	33E	634549	3545134*	160	120	40
C 02285 POD1	CUB	LE	1	4	4	03	26S	33E	636613	3548855	220	220	0
C 02286	CUB	LE	3	4	4	03	26S	33E	636470	3548714	220	175	45
C 02287	C	LE	3	4	4	03	26S	33E	636427	3548708	220		
C 02288	CUB	LE	4	4	4	03	26S	33E	636646	3548758	220	180	40
C 02289	CUB	LE	4	4	4	03	26S	33E	636612	3548675*	200	160	40
C 02290	CUB	LE	4	4	4	03	26S	33E	636538	3548770	200	160	40
C 02293	CUB	LE	2	2	1	14	26S	33E	637501	3546975	200	135	65
C 02294	CUB	LE	4	4	3	11	26S	33E	637465	3547003	200	145	55
C 02295	CUB	LE	2	2	4	12	26S	33E	639865	3547624	250	200	50
C 03577 POD1	CUB	LE	3	3	3	22	26S	33E	636010	3543771	750	110	640
C 03596 POD1	C	LE	3	3	4	22	26S	33E	636017	3543756	225		

Average Depth to Water: **157 feet**
Minimum Depth: **110 feet**
Maximum Depth: **220 feet**

Record Count: 13

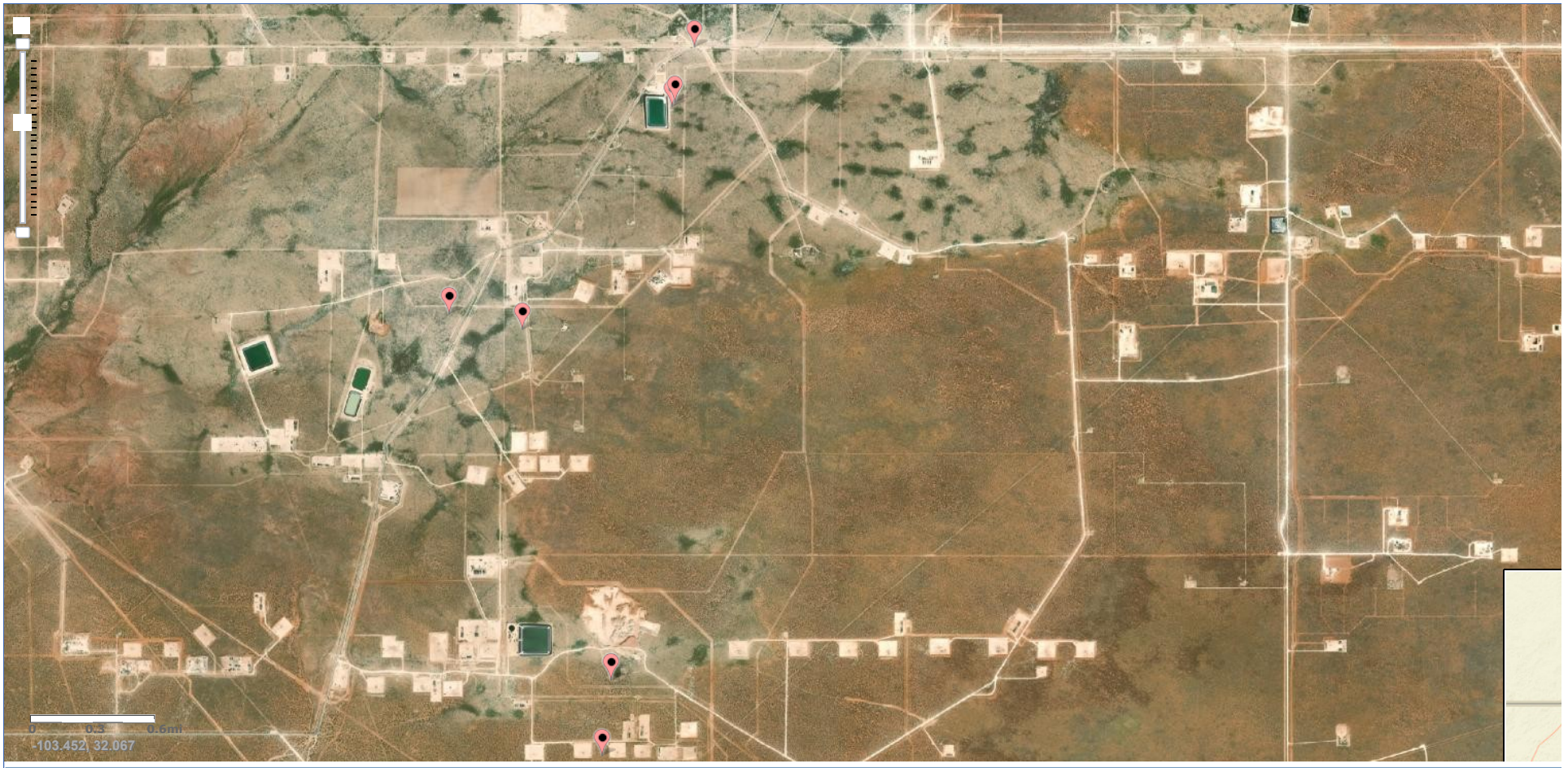
PLSS Search:

Township: 26S **Range:** 33E

***UTM location was derived from PLSS - see Help**

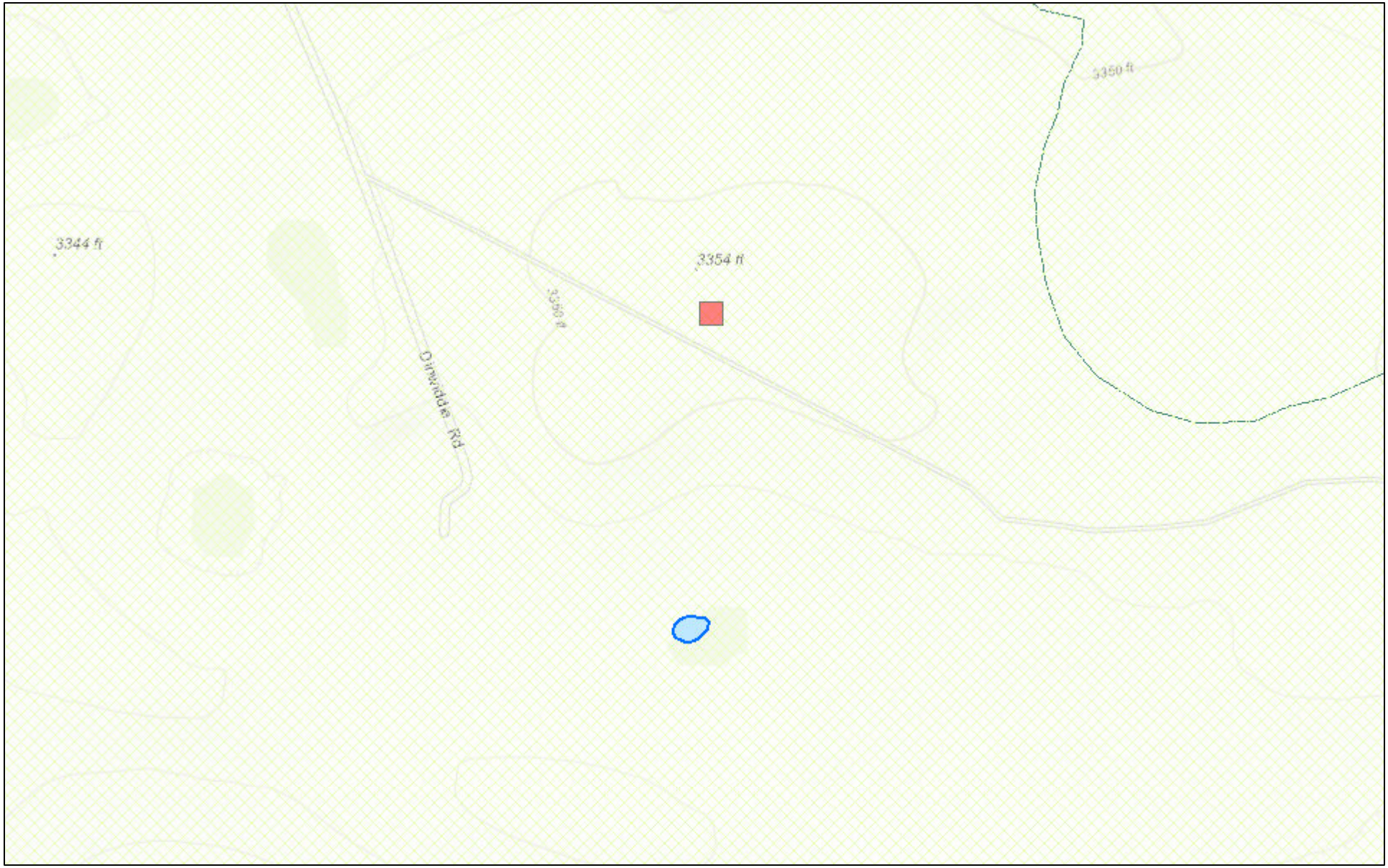
USGS science for a changing world

National Water Information System: Mapper



Site Information

New Mexico NFHL Data



October 28, 2020

1:9,028

0 0.075 0.15 0.3 mi

0 0.1 0.2 0.4 km

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

nmflood.org is made possible through a collaboration with NMDHSEM, EDAC, and FEMA
This is a non-regulatory product for informational use only. Please consult your local floodplain administrator for further information.

Low Karst

EOG Resources
Whirling Wind 14 N.CTB 702

Legend

- CRIT
- HIGH
- LOW
- MEDIUM
- Whiling Wind 14 N.CTB 702

18

128

Jal

3

Whiling Wind 14 N.CTB 702

Survey
Google Earth

N

7 mi

Water Well Data
Average Depth to Groundwater (ft)
EOG - Whirling Wind 14 N.CTB 702
Lea County, New Mexico

24 South 32 East

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

24 South 33 East

6	5	4	3	2	1
7	8	9	10 24.6	11	12
18	17	16	15	14	13
19	20	21	22	23 208	24 16.9
30	29	28	27	26	25
31	32	33 93.2	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

25 South 32 East

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

25 South 33 East

6	5	4	3 172	2	1
7	8	9	10	11 140	12 200
18	17	16	15	14	13
19	20 200	21 120	22	23	24
30	29	28	27 125	26	25
31 257	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

26 South 32 East

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

26 South 33 East

6	5	4	3 175 102	2	1
7	8	9 106	10 124	11 135	12 200
18	17	16	15	14 135	13
19	20	21 120	22 110	23	24
30	29	28	27 125 76.6	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

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

TETRA TECH

Appendix C

Laboratory Reports

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 676459

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 N. CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea Co, NM

Date Received in Lab: Fri 10.30.2020 10:43
Report Date: 11.10.2020 15:53
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	676459-001		676459-002		676459-003		676459-004					
	Field Id:	AH-1 (0-6")		AH-2 (0-6")		AH-3 (0-6")		AH-4 (0-6")					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	10.29.2020 00:00		10.29.2020 00:00		10.29.2020 00:00		10.29.2020 00:00					
BTEX by EPA 8021B	***Extracted:***	11.04.2020 16:45		11.04.2020 16:45		11.04.2020 16:45		11.04.2020 16:45					
	Analyzed:	11.05.2020 07:35		11.05.2020 07:55		11.05.2020 08:16		11.05.2020 08:36					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		0.00867	0.00198	0.0247	0.00201	<0.00201	0.00201	0.00662	0.00200				
Toluene		20.7 D	0.397	9.88 D	0.201	0.132	0.00201	0.244	0.00200				
Ethylbenzene		0.0152	0.00198	0.0122	0.00201	0.00511	0.00201	0.00775	0.00200				
m,p-Xylenes		94.9 D	0.794	0.786	0.00402	0.315	0.00402	0.639	0.00401				
o-Xylene		31.4 D	0.397	0.277	0.00201	0.122	0.00201	0.256	0.00200				
Total Xylenes		126	0.397	1.06	0.00201	0.437	0.00201	0.895	0.00200				
Total BTEX		147	0.00198	11.0	0.00201	0.574	0.00201	1.15	0.00200				
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.02.2020 11:40		11.02.2020 11:40		11.02.2020 11:40		11.02.2020 16:50					
	Analyzed:	11.02.2020 15:16		11.02.2020 15:23		11.02.2020 15:29		11.02.2020 17:21					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		380	4.96	1200	5.04	3560	24.9	10000 X	49.6				
TPH By SW8015 Mod	***Extracted:***	10.30.2020 12:00		10.30.2020 12:00		10.30.2020 12:00		10.30.2020 12:00					
	Analyzed:	10.31.2020 07:21		10.30.2020 16:46		10.30.2020 17:05		10.30.2020 17:24					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		4530	250	2160	50.0	720	49.9	932	49.9				
Diesel Range Organics (DRO)		14300	250	5990	50.0	5060	49.9	6010	49.9				
Motor Oil Range Hydrocarbons (MRO)		1460	250	390	50.0	376	49.9	419	49.9				
Total TPH		20300	250	8540	50.0	6160	49.9	7360	49.9				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 676459

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Whirling Wind 14 N. CTB 702

212C-MD-02349

11.10.2020

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)

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11.10.2020

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **676459**
Whirling Wind 14 N. CTB 702
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) 676459. 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. 676459 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,

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

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Sample Cross Reference 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH-1 (0-6")	S	10.29.2020 00:00		676459-001
AH-2 (0-6")	S	10.29.2020 00:00		676459-002
AH-3 (0-6")	S	10.29.2020 00:00		676459-003
AH-4 (0-6")	S	10.29.2020 00:00		676459-004

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CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Whirling Wind 14 N. CTB 702

Project ID: *212C-MD-02349*
Work Order Number(s): *676459*

Report Date: *11.10.2020*
Date Received: *10.30.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3141215 Inorganic Anions by EPA 300/300.1

Lab Sample ID 676459-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 676459-004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3141451 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected. Samples affected are: 676459-004,676459-001.

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **AH-1 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676459-001 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 11:40 % Moisture:

Seq Number: 3141212 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**380**	4.96	mg/kg	11.02.2020 15:16		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**4530**	250	mg/kg	10.31.2020 07:21		5
Diesel Range Organics (DRO)	C10C28DRO	**14300**	250	mg/kg	10.31.2020 07:21		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1460**	250	mg/kg	10.31.2020 07:21		5
Total TPH	PHC635	**20300**	250	mg/kg	10.31.2020 07:21		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	10.31.2020 07:21	
o-Terphenyl	84-15-1	120	%	70-130	10.31.2020 07:21	

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **AH-1 (0-6")**
Lab Sample Id: 676459-001

Matrix: Soil
Date Collected: 10.29.2020 00:00

Date Received:10.30.2020 10:43

Analytical Method: BTEX by EPA 8021B
Tech: KTL
Analyst: KTL
Seq Number: 3141451

Date Prep: 11.04.2020 16:45

Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00867**	0.00198	mg/kg	11.05.2020 07:35		1
Toluene	108-88-3	**20.7**	0.397	mg/kg	11.08.2020 15:10	D	200
Ethylbenzene	100-41-4	**0.0152**	0.00198	mg/kg	11.05.2020 07:35		1
m,p-Xylenes	179601-23-1	**94.9**	0.794	mg/kg	11.08.2020 15:10	D	200
o-Xylene	95-47-6	**31.4**	0.397	mg/kg	11.08.2020 15:10	D	200
Total Xylenes	1330-20-7	**126**	0.397	mg/kg	11.08.2020 15:10		200
Total BTEX		**147**	0.00198	mg/kg	11.08.2020 15:10		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	326	%	70-130	11.05.2020 07:35	**
1,4-Difluorobenzene	540-36-3	84	%	70-130	11.05.2020 07:35	

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **AH-2 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676459-002 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 11:40 % Moisture:

Seq Number: 3141212 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	5.04	mg/kg	11.02.2020 15:23		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2160**	50.0	mg/kg	10.30.2020 16:46		1
Diesel Range Organics (DRO)	C10C28DRO	**5990**	50.0	mg/kg	10.30.2020 16:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**390**	50.0	mg/kg	10.30.2020 16:46		1
Total TPH	PHC635	**8540**	50.0	mg/kg	10.30.2020 16:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	10.30.2020 16:46	
o-Terphenyl	84-15-1	124	%	70-130	10.30.2020 16:46	

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id:	**AH-2 (0-6")**	Matrix:	Soil	Date Received:	10.30.2020 10:43
Lab Sample Id:	676459-002	Date Collected:	10.29.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.04.2020 16:45	% Moisture:	
Seq Number:	3141451			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0247**	0.00201	mg/kg	11.05.2020 07:55		1
Toluene	108-88-3	**9.88**	0.201	mg/kg	11.08.2020 07:11	D	100
Ethylbenzene	100-41-4	**0.0122**	0.00201	mg/kg	11.05.2020 07:55		1
m,p-Xylenes	179601-23-1	**0.786**	0.00402	mg/kg	11.05.2020 07:55		1
o-Xylene	95-47-6	**0.277**	0.00201	mg/kg	11.05.2020 07:55		1
Total Xylenes	1330-20-7	**1.06**	0.00201	mg/kg	11.05.2020 07:55		1
Total BTEX		**11.0**	0.00201	mg/kg	11.08.2020 07:11		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.05.2020 07:55	
4-Bromofluorobenzene	460-00-4	126	%	70-130	11.05.2020 07:55	

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **AH-3 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676459-003 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 11:40 % Moisture:

Seq Number: 3141212 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3560**	24.9	mg/kg	11.02.2020 15:29		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**720**	49.9	mg/kg	10.30.2020 17:05		1
Diesel Range Organics (DRO)	C10C28DRO	**5060**	49.9	mg/kg	10.30.2020 17:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**376**	49.9	mg/kg	10.30.2020 17:05		1
Total TPH	PHC635	**6160**	49.9	mg/kg	10.30.2020 17:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	10.30.2020 17:05	
o-Terphenyl	84-15-1	98	%	70-130	10.30.2020 17:05	

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **AH-3 (0-6")**
Lab Sample Id: 676459-003

Matrix: Soil
Date Collected: 10.29.2020 00:00

Date Received:10.30.2020 10:43

Analytical Method: BTEX by EPA 8021B
Tech: KTL
Analyst: KTL
Seq Number: 3141451

Date Prep: 11.04.2020 16:45

Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.05.2020 08:16	U	1
Toluene	108-88-3	**0.132**	0.00201	mg/kg	11.05.2020 08:16		1
Ethylbenzene	100-41-4	**0.00511**	0.00201	mg/kg	11.05.2020 08:16		1
m,p-Xylenes	179601-23-1	**0.315**	0.00402	mg/kg	11.05.2020 08:16		1
o-Xylene	95-47-6	**0.122**	0.00201	mg/kg	11.05.2020 08:16		1
Total Xylenes	1330-20-7	**0.437**	0.00201	mg/kg	11.05.2020 08:16		1
Total BTEX		**0.574**	0.00201	mg/kg	11.05.2020 08:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.05.2020 08:16	
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.05.2020 08:16	

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **AH-4 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676459-004 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 16:50 % Moisture:

Seq Number: 3141215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10000**	49.6	mg/kg	11.02.2020 17:21	X	10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**932**	49.9	mg/kg	10.30.2020 17:24		1
Diesel Range Organics (DRO)	C10C28DRO	**6010**	49.9	mg/kg	10.30.2020 17:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**419**	49.9	mg/kg	10.30.2020 17:24		1
Total TPH	PHC635	**7360**	49.9	mg/kg	10.30.2020 17:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	10.30.2020 17:24	
o-Terphenyl	84-15-1	105	%	70-130	10.30.2020 17:24	

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Certificate of Analytical Results 676459

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **AH-4 (0-6")**
Lab Sample Id: 676459-004

Matrix: Soil
Date Collected: 10.29.2020 00:00

Date Received:10.30.2020 10:43

Analytical Method: BTEX by EPA 8021B
Tech: KTL
Analyst: KTL
Seq Number: 3141451

Date Prep: 11.04.2020 16:45

Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00662**	0.00200	mg/kg	11.05.2020 08:36		1
Toluene	108-88-3	**0.244**	0.00200	mg/kg	11.05.2020 08:36		1
Ethylbenzene	100-41-4	**0.00775**	0.00200	mg/kg	11.05.2020 08:36		1
m,p-Xylenes	179601-23-1	**0.639**	0.00401	mg/kg	11.05.2020 08:36		1
o-Xylene	95-47-6	**0.256**	0.00200	mg/kg	11.05.2020 08:36		1
Total Xylenes	1330-20-7	**0.895**	0.00200	mg/kg	11.05.2020 08:36		1
Total BTEX		**1.15**	0.00200	mg/kg	11.05.2020 08:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	211	%	70-130	11.05.2020 08:36	**
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.05.2020 08:36	

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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

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QC Summary 676459

Tetra Tech- Midland

Whirling Wind 14 N. CTB 702

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141212 — Matrix: Solid — Date Prep: 11.02.2020
MB Sample Id: 7714335-1-BLK — LCS Sample Id: 7714335-1-BKS — LCSD Sample Id: 7714335-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	268	107	266	106	90-110	1	20	mg/kg	11.02.2020 12:17	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141215 — Matrix: Solid — Date Prep: 11.02.2020
MB Sample Id: 7714380-1-BLK — LCS Sample Id: 7714380-1-BKS — LCSD Sample Id: 7714380-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	271	108	268	107	90-110	1	20	mg/kg	11.02.2020 17:08	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141212 — Matrix: Soil — Date Prep: 11.02.2020
Parent Sample Id: 676434-014 — MS Sample Id: 676434-014 S — MSD Sample Id: 676434-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3500	1250	5020	122	4960	117	90-110	1	20	mg/kg	11.02.2020 12:36	X

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141212 — Matrix: Soil — Date Prep: 11.02.2020
Parent Sample Id: 676455-002 — MS Sample Id: 676455-002 S — MSD Sample Id: 676455-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6860	2490	9680	113	9490	106	90-110	2	20	mg/kg	11.02.2020 14:10	X

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141215 — Matrix: Soil — Date Prep: 11.02.2020
Parent Sample Id: 676021-009 — MS Sample Id: 676021-009 S — MSD Sample Id: 676021-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5960	2520	8690	108	8600	105	90-110	1	20	mg/kg	11.02.2020 19:01	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141215 — Matrix: Soil — Date Prep: 11.02.2020
Parent Sample Id: 676459-004 — MS Sample Id: 676459-004 S — MSD Sample Id: 676459-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10000	2480	12900	117	12800	113	90-110	1	20	mg/kg	11.02.2020 17:28	X

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 676459

Tetra Tech- Midland

Whirling Wind 14 N. CTB 702

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141081 — Matrix: Solid — Date Prep: 10.30.2020
MB Sample Id: 7714293-1-BLK — LCS Sample Id: 7714293-1-BKS — LCSD Sample Id: 7714293-1-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	978	98	961	96	70-130	2	20	mg/kg	10.30.2020 13:33	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	949	95	70-130	5	20	mg/kg	10.30.2020 13:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		106		102		70-130	%	10.30.2020 13:33
o-Terphenyl	111		113		105		70-130	%	10.30.2020 13:33

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141081 — Matrix: Solid — Date Prep: 10.30.2020
MB Sample Id: 7714293-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.30.2020 13:14	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141081 — Matrix: Soil — Date Prep: 10.30.2020
Parent Sample Id: 676434-021 — MS Sample Id: 676434-021 S — MSD Sample Id: 676434-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	971	97	959	96	70-130	1	20	mg/kg	10.30.2020 14:30	
Diesel Range Organics (DRO)	<49.9	997	1000	100	977	98	70-130	2	20	mg/kg	10.30.2020 14:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		105		70-130	%	10.30.2020 14:30
o-Terphenyl	106		106		70-130	%	10.30.2020 14:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3141451 — Matrix: Solid — Date Prep: 11.04.2020
MB Sample Id: 7714573-1-BLK — LCS Sample Id: 7714573-1-BKS — LCSD Sample Id: 7714573-1-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	0.0989	99	0.0942	94	70-130	5	35	mg/kg	11.05.2020 03:32	
Toluene	<0.00200	0.100	0.0977	98	0.0936	94	70-130	4	35	mg/kg	11.05.2020 03:32	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0957	96	70-130	5	35	mg/kg	11.05.2020 03:32	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.190	95	70-130	5	35	mg/kg	11.05.2020 03:32	
o-Xylene	<0.00200	0.100	0.0981	98	0.0931	93	70-130	5	35	mg/kg	11.05.2020 03:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		100		100		70-130	%	11.05.2020 03:32
4-Bromofluorobenzene	115		102		97		70-130	%	11.05.2020 03:32

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 676459

Tetra Tech- Midland

Whirling Wind 14 N. CTB 702

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3141451 Matrix: Soil Date Prep: 11.04.2020

Parent Sample Id: 676455-001 MS Sample Id: 676455-001 S MSD Sample Id: 676455-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0694	70	0.0695	70	70-130	0	35	mg/kg	11.05.2020 04:13	
Toluene	<0.00200	0.0998	0.0708	71	0.0741	74	70-130	5	35	mg/kg	11.05.2020 04:13	
Ethylbenzene	<0.00200	0.0998	0.0754	76	0.0799	80	70-130	6	35	mg/kg	11.05.2020 04:13	
m,p-Xylenes	<0.00399	0.200	0.153	77	0.165	83	70-130	8	35	mg/kg	11.05.2020 04:13	
o-Xylene	<0.00200	0.0998	0.0744	75	0.0800	80	70-130	7	35	mg/kg	11.05.2020 04:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		70-130	%	11.05.2020 04:13
4-Bromofluorobenzene	100		105		70-130	%	11.05.2020 04:13

MS/MSD Percent Recovery [D] = 100*(C-A) / B

Relative Percent Difference RPD = 200* | (C-E) / (C+E) |

LCS/LCSD Recovery [D] = 100 * (C) / [B]

Log Difference 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

676459 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:	Whirling Wind 14 N.CTB 702
Project Location: (county, state)	Lea Co, NM
Project #:	212C-MD-02349
Invoice to:	EOG - Todd Wells
Receiving Laboratory:	Xenco
Sampler Signature:	Conner Moehring
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2020)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	HNO_3	ICE	None	# CONTAINERS	FILTERED (Y/N)
	AH-1 (0-6")	10/29/2020			X				X		1	N
	AH-2 (0-6")	10/29/2020			X				X		1	N
	AH-3 (0-6")	10/29/2020			X				X		1	N
	AH-4 (0-6")	10/29/2020			X				X		1	N

ANALYSIS REQUEST (Circle or Specify Method No.)

SAMPLE IDENTIFICATION	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
AH-1 (0-6")	X		X												X				
AH-2 (0-6")	X		X												X				
AH-3 (0-6")	X		X												X				
AH-4 (0-6")	X		X												X				

	Date:	Time:		Date:	Time:
Relinquished by: [signature]	10/30/2020	1042	Received by: [signature]	10/30	1043
Relinquished by:			Received by:		
Relinquished by:			Received by:		

LAB USE ONLY

Sample Temperature -5.5/-5.0

REMARKS:

- ☒ STANDARD
- ☐ RUSH: Same Day 24 hr 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

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

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10.30.2020 10.43.00 AM

Work Order #: 676459

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 *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: 10.30.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10.30.2020
Jessica Kramer

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Certificate of Analysis Summary 676460

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 N. CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea Co, NM

Date Received in Lab: Fri 10.30.2020 10:43
Report Date: 11.05.2020 13:06
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	676460-001		676460-002		676460-003		676460-004					
	Field Id:	Horizontal-1 (0-6")		Horizontal-2 (0-6")		Horizontal-3 (0-6")		Horizontal-4 (0-6")					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	10.29.2020 00:00		10.29.2020 00:00		10.29.2020 00:00		10.29.2020 00:00					
BTEX by EPA 8021B	***Extracted:***	11.03.2020 17:15		11.03.2020 17:15		11.03.2020 17:15		11.03.2020 16:00					
	Analyzed:	11.04.2020 22:22		11.04.2020 22:48		11.04.2020 23:14		11.04.2020 16:05					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00401	0.00401	<0.00399	0.00399				
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.02.2020 16:50		11.02.2020 16:50		11.02.2020 16:50		11.02.2020 16:50					
	Analyzed:	11.02.2020 17:41		11.02.2020 17:47		11.02.2020 17:54		11.02.2020 18:01					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		463	5.02	70.3	4.99	27.8	5.05	39.6	5.05				
TPH By SW8015 Mod	***Extracted:***	10.30.2020 12:00		10.30.2020 12:00		10.30.2020 12:00		10.30.2020 12:00					
	Analyzed:	10.30.2020 17:43		10.30.2020 18:22		10.30.2020 18:41		10.30.2020 19:00					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	111	49.8	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0				
Total TPH		<50.0	50.0	<49.9	49.9	111	49.8	<50.0	50.0				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 676460

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Whirling Wind 14 N. CTB 702

212C-MD-02349

11.05.2020

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)

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11.05.2020

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **676460**
Whirling Wind 14 N. CTB 702
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) 676460. 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. 676460 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,

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

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Sample Cross Reference 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Horizontal-1 (0-6")	S	10.29.2020 00:00		676460-001
Horizontal-2 (0-6")	S	10.29.2020 00:00		676460-002
Horizontal-3 (0-6")	S	10.29.2020 00:00		676460-003
Horizontal-4 (0-6")	S	10.29.2020 00:00		676460-004

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CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Whirling Wind 14 N. CTB 702

Project ID: *212C-MD-02349*
Work Order Number(s): *676460*

Report Date: *11.05.2020*
Date Received: *10.30.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3141369 BTEX by EPA 8021B

Lab Sample ID 676460-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 676460-001, -002, -003, -004.

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

Benzene Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.

Samples in the analytical batch are: 676460-001, -002, -003, -004

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-1 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676460-001 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 16:50 % Moisture:

Seq Number: 3141215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**463**	5.02	mg/kg	11.02.2020 17:41		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.2020 17:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.30.2020 17:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.30.2020 17:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.30.2020 17:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	10.30.2020 17:43	
o-Terphenyl	84-15-1	108	%	70-130	10.30.2020 17:43	

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-1 (0-6")**
Lab Sample Id: 676460-001

Matrix: Soil
Date Collected: 10.29.2020 00:00

Date Received:10.30.2020 10:43

Analytical Method: BTEX by EPA 8021B
Tech: MNR
Analyst: KTL
Seq Number: 3141369

Date Prep: 11.03.2020 17:15

Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.04.2020 22:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.04.2020 22:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.04.2020 22:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.04.2020 22:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.04.2020 22:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.04.2020 22:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.04.2020 22:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.04.2020 22:22	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.04.2020 22:22	

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-2 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676460-002 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 16:50 % Moisture:

Seq Number: 3141215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**70.3**	4.99	mg/kg	11.02.2020 17:47		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.30.2020 18:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.30.2020 18:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.30.2020 18:22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.30.2020 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	10.30.2020 18:22	
o-Terphenyl	84-15-1	104	%	70-130	10.30.2020 18:22	

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-2 (0-6")**
Lab Sample Id: 676460-002
Matrix: Soil
Date Collected: 10.29.2020 00:00
Date Received:10.30.2020 10:43

Analytical Method: BTEX by EPA 8021B
Tech: MNR
Analyst: KTL
Seq Number: 3141369
Date Prep: 11.03.2020 17:15
Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.04.2020 22:48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.04.2020 22:48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.04.2020 22:48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.04.2020 22:48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.04.2020 22:48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.04.2020 22:48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.04.2020 22:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.04.2020 22:48	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.04.2020 22:48	

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-3 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676460-003 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 16:50 % Moisture:

Seq Number: 3141215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.8**	5.05	mg/kg	11.02.2020 17:54		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.30.2020 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**111**	49.8	mg/kg	10.30.2020 18:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.30.2020 18:41	U	1
Total TPH	PHC635	**111**	49.8	mg/kg	10.30.2020 18:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	10.30.2020 18:41	
o-Terphenyl	84-15-1	117	%	70-130	10.30.2020 18:41	

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-3 (0-6")**
Lab Sample Id: 676460-003

Matrix: Soil
Date Collected: 10.29.2020 00:00

Date Received:10.30.2020 10:43

Analytical Method: BTEX by EPA 8021B
Tech: MNR
Analyst: KTL
Seq Number: 3141369

Prep Method: SW5035A
Date Prep: 11.03.2020 17:15
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.04.2020 23:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.04.2020 23:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.04.2020 23:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.04.2020 23:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.04.2020 23:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.04.2020 23:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.04.2020 23:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.04.2020 23:14	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.04.2020 23:14	

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-4 (0-6")** Matrix: Soil Date Received:10.30.2020 10:43

Lab Sample Id: 676460-004 Date Collected: 10.29.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.02.2020 16:50 % Moisture:

Seq Number: 3141215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.6**	5.05	mg/kg	11.02.2020 18:01		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.30.2020 12:00 % Moisture:

Seq Number: 3141081 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.2020 19:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.30.2020 19:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.30.2020 19:00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.30.2020 19:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	10.30.2020 19:00	
o-Terphenyl	84-15-1	105	%	70-130	10.30.2020 19:00	

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Certificate of Analytical Results 676460

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 N. CTB 702

Sample Id: **Horizontal-4 (0-6")**
Lab Sample Id: 676460-004
Matrix: Soil
Date Collected: 10.29.2020 00:00
Date Received:10.30.2020 10:43

Analytical Method: BTEX by EPA 8021B
Tech: MNR
Analyst: KTL
Seq Number: 3141369
Date Prep: 11.03.2020 16:00
Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.04.2020 16:05	UX	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.04.2020 16:05	UX	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.04.2020 16:05	UX	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.04.2020 16:05	UX	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.04.2020 16:05	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.04.2020 16:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.04.2020 16:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	11.04.2020 16:05	
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.04.2020 16:05	

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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

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QC Summary 676460

Tetra Tech- Midland

Whirling Wind 14 N. CTB 702

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141215 — Matrix: Solid — Date Prep: 11.02.2020
MB Sample Id: 7714380-1-BLK — LCS Sample Id: 7714380-1-BKS — LCSD Sample Id: 7714380-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	271	108	268	107	90-110	1	20	mg/kg	11.02.2020 17:08	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141215 — Matrix: Soil — Date Prep: 11.02.2020
Parent Sample Id: 676021-009 — MS Sample Id: 676021-009 S — MSD Sample Id: 676021-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5960	2520	8690	108	8600	105	90-110	1	20	mg/kg	11.02.2020 19:01	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3141215 — Matrix: Soil — Date Prep: 11.02.2020
Parent Sample Id: 676459-004 — MS Sample Id: 676459-004 S — MSD Sample Id: 676459-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10000	2480	12900	117	12800	113	90-110	1	20	mg/kg	11.02.2020 17:28	X

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141081 — Matrix: Solid — Date Prep: 10.30.2020
MB Sample Id: 7714293-1-BLK — LCS Sample Id: 7714293-1-BKS — LCSD Sample Id: 7714293-1-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	978	98	961	96	70-130	2	20	mg/kg	10.30.2020 13:33	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	949	95	70-130	5	20	mg/kg	10.30.2020 13:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		106		102		70-130	%	10.30.2020 13:33
o-Terphenyl	111		113		105		70-130	%	10.30.2020 13:33

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141081 — Matrix: Solid — Date Prep: 10.30.2020
MB Sample Id: 7714293-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.30.2020 13:14	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 676460

Tetra Tech- Midland

Whirling Wind 14 N. CTB 702

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3141081 Matrix: Soil Date Prep: 10.30.2020
Parent Sample Id: 676434-021 MS Sample Id: 676434-021 S MSD Sample Id: 676434-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	971	97	959	96	70-130	1	20	mg/kg	10.30.2020 14:30	
Diesel Range Organics (DRO)	<49.9	997	1000	100	977	98	70-130	2	20	mg/kg	10.30.2020 14:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		105		70-130	%	10.30.2020 14:30
o-Terphenyl	106		106		70-130	%	10.30.2020 14:30

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141369 Matrix: Solid Date Prep: 11.03.2020
MB Sample Id: 7714514-1-BLK LCS Sample Id: 7714514-1-BKS LCSD Sample Id: 7714514-1-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	0.0856	86	0.0863	86	70-130	1	35	mg/kg	11.04.2020 12:37	
Toluene	<0.00200	0.100	0.119	119	0.119	119	70-130	0	35	mg/kg	11.04.2020 12:37	
Ethylbenzene	<0.00200	0.100	0.113	113	0.111	111	70-130	2	35	mg/kg	11.04.2020 12:37	
m,p-Xylenes	<0.00400	0.200	0.230	115	0.225	113	70-130	2	35	mg/kg	11.04.2020 12:37	
o-Xylene	<0.00200	0.100	0.115	115	0.111	111	70-130	4	35	mg/kg	11.04.2020 12:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	74		120		105		70-130	%	11.04.2020 12:37
4-Bromofluorobenzene	80		92		96		70-130	%	11.04.2020 12:37

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141369 Matrix: Soil Date Prep: 11.03.2020
Parent Sample Id: 676460-004 MS Sample Id: 676460-004 S MSD Sample Id: 676460-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.00351	4	0.00209	2	70-130	51	35	mg/kg	11.04.2020 13:29	X
Toluene	<0.00199	0.0996	<0.00199	0	<0.00200	0	70-130	NC	35	mg/kg	11.04.2020 13:29	X
Ethylbenzene	<0.00199	0.0996	<0.00199	0	<0.00200	0	70-130	NC	35	mg/kg	11.04.2020 13:29	X
m,p-Xylenes	<0.00398	0.199	<0.00398	0	<0.00400	0	70-130	NC	35	mg/kg	11.04.2020 13:29	X
o-Xylene	<0.00199	0.0996	<0.00199	0	<0.00200	0	70-130	NC	35	mg/kg	11.04.2020 13:29	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	11.04.2020 13:29
4-Bromofluorobenzene	107		104		70-130	%	11.04.2020 13:29

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

676460

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: Whirling Wind 14 N.CTB 702	
Project Location: (county, state) Lea Co, NM	**Project #:** 212C-MD-02349
Invoice to: EOG - Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Conner Moehring
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B / BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance					Hold
	Horizontal-1 (0-6")	10/29/2020			X				X			1	N	X		X												X							
	Horizontal-2 (0-6")	10/29/2020			X				X			1	N	X		X												X							
	Horizontal-3 (0-6")	10/29/2020			X				X			1	N	X		X												X							
	Horizontal-4 (0-6")	10/29/2020			X				X			1	N	X		X												X							

Relinquished by: Date: Time:
Donna Mealy 10/30/2020 10 42

Received by: Date: Time:
[signature] 10/30 1043

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature
-5.5 / -5.0

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: 10.30.2020 10.43.00 AM

Work Order #: 676460

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 *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: 10.30.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10.30.2020
Jessica Kramer

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Certificate of Analysis Summary 678792

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Mon 11.23.2020 13:47
Report Date: 11.25.2020 15:24
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678792-001		678792-002		678792-003		678792-004		678792-005		678792-006	
	Field Id:	Bottomhole-1 (1')		Bottomhole-2 (1')		Bottomhole-3 (1')		Bottomhole-4 (1')		Bottomhole-5 (1')		Bottomhole-6 (1')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30	
	Analyzed:	11.24.2020 05:32		11.24.2020 05:53		11.24.2020 06:13		11.24.2020 06:34		11.24.2020 06:54		11.24.2020 07:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00401	0.00401	<0.00396	0.00396	<0.00397	0.00397	<0.00397	0.00397
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Total Xylenes		<0.001990	0.001990	<0.001990	0.001990	<0.002000	0.002000	<0.001980	0.001980	<0.001980	0.001980	<0.001980	0.001980
Total BTEX		<0.001990	0.001990	<0.001990	0.001990	<0.002000	0.002000	<0.001980	0.001980	<0.001980	0.001980	<0.001980	0.001980
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.23.2020 16:45		11.23.2020 16:45		11.23.2020 16:45		11.23.2020 16:45		11.23.2020 16:45		11.23.2020 16:45	
	Analyzed:	11.24.2020 00:20		11.24.2020 00:36		11.24.2020 00:41		11.24.2020 00:46		11.24.2020 00:52		11.24.2020 00:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		91.2	4.99	89.7	4.98	136	5.02	144	4.95	90.9	5.03	112	4.99
TPH By SW8015 Mod	***Extracted:***	11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00	
	Analyzed:	11.24.2020 13:00		11.24.2020 14:08		11.24.2020 14:30		11.24.2020 14:52		11.24.2020 15:15		11.24.2020 15:37	
	Units/RL:	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	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		90.6	50.0	68.6	49.9	116	49.9	59.3	50.0	79.8	50.0	53.5	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Total TPH		90.60	50.00	68.60	49.90	116.0	49.90	59.30	50.00	79.80	50.00	53.50	49.90

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Certificate of Analysis Summary 678792

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Mon 11.23.2020 13:47
Report Date: 11.25.2020 15:24
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678792-007		678792-008		678792-009		678792-010		678792-011		678792-012	
	Field Id:	Bottomhole-7 (1.5')		Bottomhole-8 (1.5')		Bottomhole-9 (1.5')		Bottomhole-10 (1.5')		Bottomhole-11 (2.5')		Bottomhole-12 (2.5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30	
	Analyzed:	11.24.2020 07:35		11.24.2020 07:56		11.24.2020 08:16		11.24.2020 08:37		11.24.2020 10:32		11.24.2020 10:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00397	0.00397	<0.00399	0.00399	<0.00398	0.00398	<0.00402	0.00402	<0.00401	0.00401	<0.00396	0.00396
o-Xylene		<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.001980	0.001980	<0.002000	0.002000	<0.001990	0.001990	<0.002010	0.002010	<0.002000	0.002000	<0.001980	0.001980
Total BTEX		<0.001980	0.001980	<0.002000	0.002000	<0.001990	0.001990	<0.002010	0.002010	<0.002000	0.002000	<0.001980	0.001980
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.23.2020 16:45		11.23.2020 16:45		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55	
	Analyzed:	11.24.2020 01:02		11.24.2020 01:07		11.24.2020 01:39		11.24.2020 01:55		11.24.2020 02:00		11.24.2020 02:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		69.6	5.00	43.6	5.00	974	5.02	707	4.99	641	4.97	786	5.04
TPH By SW8015 Mod	***Extracted:***	11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00	
	Analyzed:	11.24.2020 16:00		11.24.2020 16:23		11.24.2020 16:45		11.24.2020 17:07		11.24.2020 17:52		11.24.2020 18:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.8	49.8
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	62.4	49.8	132	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.8	49.8
Total TPH		<49.80	49.80	<50.00	50.00	<50.00	50.00	<49.90	49.90	62.40	49.80	132.0	49.80

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Certificate of Analysis Summary 678792

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Mon 11.23.2020 13:47
Report Date: 11.25.2020 15:24
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678792-013		678792-014		678792-015		678792-016		678792-017		678792-018	
	Field Id:	Bottomhole-13 (2.5')		Bottomhole-14 (2.5')		Bottomhole-15 (2.5')		Bottomhole-16 (2.5')		Bottomhole-17 (2.5')		Bottomhole-18 (2.5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:30	
	Analyzed:	11.24.2020 11:13		11.24.2020 11:34		11.24.2020 11:54		11.24.2020 12:15		11.24.2020 12:35		11.24.2020 12:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00403	0.00403	<0.00398	0.00398	<0.00404	0.00404	<0.00401	0.00401	<0.00398	0.00398
o-Xylene		<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.001990	0.001990	<0.002020	0.002020	<0.001990	0.001990	<0.002020	0.002020	<0.002000	0.002000	<0.001990	0.001990
Total BTEX		<0.001990	0.001990	<0.002020	0.002020	<0.001990	0.001990	<0.002020	0.002020	<0.002000	0.002000	<0.001990	0.001990
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55	
	Analyzed:	11.24.2020 02:11		11.24.2020 02:27		11.24.2020 02:32		11.24.2020 02:37		11.24.2020 02:43		11.24.2020 02:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		696	4.98	548	4.95	587	5.03	787	5.00	755	5.00	530	5.04
TPH By SW8015 Mod	***Extracted:***	11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00		11.24.2020 10:00	
	Analyzed:	11.24.2020 18:36		11.24.2020 18:58		11.24.2020 19:20		11.24.2020 19:42		11.24.2020 20:03		11.24.2020 20:25	
	Units/RL:	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	<49.9	49.9	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		122	49.9	58.8	50.0	72.8	50.0	51.4	49.9	118	50.0	241	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9
Total TPH		122.0	49.90	58.80	50.00	72.80	50.00	51.40	49.90	118.0	50.00	241.0	49.90

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Certificate of Analysis Summary 678792

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Mon 11.23.2020 13:47
Report Date: 11.25.2020 15:24
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678792-019		678792-020		678792-021		678792-022		678792-023		678792-024	
	Field Id:	SW-1		SW-2		SW-3		SW-4		SW-5		SW-6	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	11.23.2020 14:30		11.23.2020 14:30		11.23.2020 14:00		11.23.2020 14:00		11.23.2020 14:00		11.23.2020 14:00	
	Analyzed:	11.24.2020 13:16		11.24.2020 13:36		11.23.2020 17:30		11.23.2020 17:51		11.23.2020 18:12		11.23.2020 18:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00399	0.00399	<0.00396	0.00396	<0.00398	0.00398	<0.00401	0.00401	<0.00399	0.00399
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.001990	0.001990	<0.002000	0.002000	<0.001980	0.001980	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000
Total BTEX		<0.001990	0.001990	<0.002000	0.002000	<0.001980	0.001980	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55	
	Analyzed:	11.24.2020 02:53		11.24.2020 03:09		11.24.2020 03:15		11.24.2020 03:30		11.24.2020 03:36		11.24.2020 03:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		707	4.95	533	4.98	69.9	4.99	56.8	5.05	62.9	5.05	41.0	5.00
TPH By SW8015 Mod	***Extracted:***	11.24.2020 10:00		11.24.2020 10:00		11.24.2020 17:00		11.24.2020 17:00		11.24.2020 17:00		11.24.2020 15:00	
	Analyzed:	11.24.2020 20:47		11.24.2020 21:09		11.25.2020 07:25		11.25.2020 07:44		11.25.2020 08:04		11.25.2020 07:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0
Diesel Range Organics (DRO)		55.0	49.8	205	49.9	511	50.0	<49.9	49.9	65.0	50.0	57.2	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<49.9	49.9	60.2	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0
Total TPH		55.00	49.80	205.0	49.90	571.2	50.00	<49.90	49.90	65.00	50.00	57.20	50.00

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Certificate of Analysis Summary 678792

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Mon 11.23.2020 13:47
Report Date: 11.25.2020 15:24
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678792-025		678792-026		678792-027		678792-028		678792-029		678792-030	
	Field Id:	SW-7		SW-8		SW-9		SW-10		SW-11		SW-12	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00		11.23.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	11.23.2020 14:00		11.23.2020 14:00		11.23.2020 14:00		11.23.2020 14:00		11.23.2020 14:00		11.23.2020 14:00	
	Analyzed:	11.23.2020 18:53		11.23.2020 19:14		11.23.2020 19:34		11.23.2020 19:55		11.23.2020 20:16		11.23.2020 20:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00403	0.00403	<0.00398	0.00398	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.002000	0.002000	<0.002020	0.002020	<0.001990	0.001990	<0.001990	0.001990	<0.002000	0.002000	<0.002010	0.002010
Total BTEX		<0.002000	0.002000	<0.002020	0.002020	<0.001990	0.001990	<0.001990	0.001990	<0.002000	0.002000	<0.002010	0.002010
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 16:55		11.23.2020 17:10		11.23.2020 17:10	
	Analyzed:	11.24.2020 03:46		11.24.2020 03:51		11.24.2020 03:57		11.24.2020 04:02		11.24.2020 04:34		11.24.2020 04:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		61.4	5.00	143	5.00	82.4	5.04	69.4	4.98	49.3	5.00	59.8	4.96
TPH By SW8015 Mod	***Extracted:***	11.24.2020 15:00		11.24.2020 15:00		11.24.2020 15:00		11.24.2020 15:00		11.24.2020 15:00		11.24.2020 15:00	
	Analyzed:	11.25.2020 04:55		11.25.2020 05:17		11.25.2020 05:40		11.25.2020 06:02		11.25.2020 06:24		11.25.2020 06:46	
	Units/RL:	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	<50.0	50.0
Diesel Range Organics (DRO)		52.0	49.9	54.0	50.0	127	50.0	58.2	50.0	54.5	49.9	113	50.0
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	<50.0	50.0
Total TPH		52.00	49.90	54.00	50.00	127.0	50.00	58.20	50.00	54.50	49.90	113.0	50.00

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Certificate of Analysis Summary 678792

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Mon 11.23.2020 13:47
Report Date: 11.25.2020 15:24
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	678792-031						
	Field Id:	SW-13						
	Depth:							
	Matrix:	SOIL						
	Sampled:	11.23.2020 00:00						
BTEX by EPA 8021B	***Extracted:***	11.23.2020 14:00						
	Analyzed:	11.23.2020 21:59						
	Units/RL:	mg/kg	RL					
Benzene		<0.00200	0.00200					
Toluene		<0.00200	0.00200					
Ethylbenzene		<0.00200	0.00200					
m,p-Xylenes		<0.00400	0.00400					
o-Xylene		<0.00200	0.00200					
Total Xylenes		<0.002000	0.002000					
Total BTEX		<0.002000	0.002000					
Inorganic Anions by EPA 300/300.1	***Extracted:***	11.23.2020 17:10						
	Analyzed:	11.24.2020 04:55						
	Units/RL:	mg/kg	RL					
Chloride		68.3	5.04					
TPH By SW8015 Mod	***Extracted:***	11.24.2020 15:00						
	Analyzed:	11.25.2020 07:09						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8					
Diesel Range Organics (DRO)		114	49.8					
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8					
Total TPH		114.0	49.80					

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 678792

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Whirling Wind 14 North CTB 702

212C-MD-02349

11.25.2020

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)

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11.25.2020

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **678792**
Whirling Wind 14 North CTB 702
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) 678792. 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. 678792 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,

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

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Sample Cross Reference 678792

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottomhole-1 (1')	S	11.23.2020 00:00		678792-001
Bottomhole-2 (1')	S	11.23.2020 00:00		678792-002
Bottomhole-3 (1')	S	11.23.2020 00:00		678792-003
Bottomhole-4 (1')	S	11.23.2020 00:00		678792-004
Bottomhole-5 (1')	S	11.23.2020 00:00		678792-005
Bottomhole-6 (1')	S	11.23.2020 00:00		678792-006
Bottomhole-7 (1.5')	S	11.23.2020 00:00		678792-007
Bottomhole-8 (1.5')	S	11.23.2020 00:00		678792-008
Bottomhole-9 (1.5')	S	11.23.2020 00:00		678792-009
Bottomhole-10 (1.5')	S	11.23.2020 00:00		678792-010
Bottomhole-11 (2.5')	S	11.23.2020 00:00		678792-011
Bottomhole-12 (2.5')	S	11.23.2020 00:00		678792-012
Bottomhole-13 (2.5')	S	11.23.2020 00:00		678792-013
Bottomhole-14 (2.5')	S	11.23.2020 00:00		678792-014
Bottomhole-15 (2.5')	S	11.23.2020 00:00		678792-015
Bottomhole-16 (2.5')	S	11.23.2020 00:00		678792-016
Bottomhole-17 (2.5')	S	11.23.2020 00:00		678792-017
Bottomhole-18 (2.5')	S	11.23.2020 00:00		678792-018
SW-1	S	11.23.2020 00:00		678792-019
SW-2	S	11.23.2020 00:00		678792-020
SW-3	S	11.23.2020 00:00		678792-021
SW-4	S	11.23.2020 00:00		678792-022
SW-5	S	11.23.2020 00:00		678792-023
SW-6	S	11.23.2020 00:00		678792-024
SW-7	S	11.23.2020 00:00		678792-025
SW-8	S	11.23.2020 00:00		678792-026
SW-9	S	11.23.2020 00:00		678792-027
SW-10	S	11.23.2020 00:00		678792-028
SW-11	S	11.23.2020 00:00		678792-029
SW-12	S	11.23.2020 00:00		678792-030
SW-13	S	11.23.2020 00:00		678792-031

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CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Whirling Wind 14 North CTB 702

Project ID: *212C-MD-02349*
Work Order Number(s): *678792*

Report Date: *11.25.2020*
Date Received: *11.23.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3143121 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7715845-1-BKS,678792-021 S,678792-025,678792-029,678792-023.

Lab Sample ID 678792-021 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 678792-021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031.
The Laboratory Control Sample for Benzene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3143125 BTEX by EPA 8021B

Lab Sample ID 678792-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 678792-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3143307 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7715934-1-BKS,7715934-1-BLK,678792-022,678792-023,678792-021.

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Certificate of Analytical Results 678792

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-1 (1')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-001 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**91.2**	4.99	mg/kg	11.24.2020 00:20		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 13:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	**90.6**	50.0	mg/kg	11.24.2020 13:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 13:00	U	1
Total TPH	PHC635	**90.60**	50.00	mg/kg	11.24.2020 13:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	11.24.2020 13:00	
o-Terphenyl	84-15-1	115	%	70-130	11.24.2020 13:00	

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Certificate of Analytical Results 678792

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-1 (1')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-001	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.24.2020 05:32	UX	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.24.2020 05:32	UX	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.24.2020 05:32	UX	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.24.2020 05:32	UX	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.24.2020 05:32	UX	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.24.2020 05:32	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.24.2020 05:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.24.2020 05:32	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 05:32	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-2 (1')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-002 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**89.7**	4.98	mg/kg	11.24.2020 00:36		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 14:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	**68.6**	49.9	mg/kg	11.24.2020 14:08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 14:08	U	1
Total TPH	PHC635	**68.60**	49.90	mg/kg	11.24.2020 14:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-130	11.24.2020 14:08	
o-Terphenyl	84-15-1	126	%	70-130	11.24.2020 14:08	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-2 (1')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-002	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.24.2020 05:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.24.2020 05:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.24.2020 05:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.24.2020 05:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.24.2020 05:53	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.24.2020 05:53	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.24.2020 05:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.24.2020 05:53	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.24.2020 05:53	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-3 (1')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-003 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**136**	5.02	mg/kg	11.24.2020 00:41		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 14:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	**116**	49.9	mg/kg	11.24.2020 14:30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 14:30	U	1
Total TPH	PHC635	**116.0**	49.90	mg/kg	11.24.2020 14:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	11.24.2020 14:30	
o-Terphenyl	84-15-1	119	%	70-130	11.24.2020 14:30	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-3 (1')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-003	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.24.2020 06:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.24.2020 06:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.24.2020 06:13	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.24.2020 06:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.24.2020 06:13	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.24.2020 06:13	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.24.2020 06:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.24.2020 06:13	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.24.2020 06:13	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-4 (1')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-004 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**144**	4.95	mg/kg	11.24.2020 00:46		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 14:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	**59.3**	50.0	mg/kg	11.24.2020 14:52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 14:52	U	1
Total TPH	PHC635	**59.30**	50.00	mg/kg	11.24.2020 14:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	11.24.2020 14:52	
o-Terphenyl	84-15-1	118	%	70-130	11.24.2020 14:52	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-4 (1')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-004	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.24.2020 06:34	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.24.2020 06:34	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.24.2020 06:34	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.24.2020 06:34	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.24.2020 06:34	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	11.24.2020 06:34	U	1
Total BTEX		<0.001980	0.001980	mg/kg	11.24.2020 06:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.24.2020 06:34	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 06:34	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-5 (1')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-005 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**90.9**	5.03	mg/kg	11.24.2020 00:52		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 15:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**79.8**	50.0	mg/kg	11.24.2020 15:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 15:15	U	1
Total TPH	PHC635	**79.80**	50.00	mg/kg	11.24.2020 15:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	11.24.2020 15:15	
o-Terphenyl	84-15-1	128	%	70-130	11.24.2020 15:15	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-5 (1')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-005	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.24.2020 06:54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.24.2020 06:54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.24.2020 06:54	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.24.2020 06:54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.24.2020 06:54	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	11.24.2020 06:54	U	1
Total BTEX		<0.001980	0.001980	mg/kg	11.24.2020 06:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.24.2020 06:54	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 06:54	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-6 (1')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-006 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**112**	4.99	mg/kg	11.24.2020 00:57		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 15:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	**53.5**	49.9	mg/kg	11.24.2020 15:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 15:37	U	1
Total TPH	PHC635	**53.50**	49.90	mg/kg	11.24.2020 15:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	11.24.2020 15:37	
o-Terphenyl	84-15-1	113	%	70-130	11.24.2020 15:37	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-6 (1')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-006	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.24.2020 07:15	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.24.2020 07:15	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.24.2020 07:15	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.24.2020 07:15	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.24.2020 07:15	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	11.24.2020 07:15	U	1
Total BTEX		<0.001980	0.001980	mg/kg	11.24.2020 07:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.24.2020 07:15	
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.24.2020 07:15	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-7 (1.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-007 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.6**	5.00	mg/kg	11.24.2020 01:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.2020 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.24.2020 16:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.2020 16:00	U	1
Total TPH	PHC635	<49.80	49.80	mg/kg	11.24.2020 16:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	11.24.2020 16:00	
o-Terphenyl	84-15-1	106	%	70-130	11.24.2020 16:00	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-7 (1.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-007 Date Collected: 11.23.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 11.23.2020 14:30 % Moisture:

Seq Number: 3143125 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.24.2020 07:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.24.2020 07:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.24.2020 07:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.24.2020 07:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.24.2020 07:35	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	11.24.2020 07:35	U	1
Total BTEX		<0.001980	0.001980	mg/kg	11.24.2020 07:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 07:35	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.24.2020 07:35	

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Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-8 (1.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-008 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:45 % Moisture:

Seq Number: 3143147 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.6**	5.00	mg/kg	11.24.2020 01:07		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 16:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.2020 16:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 16:23	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	11.24.2020 16:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	11.24.2020 16:23	
o-Terphenyl	84-15-1	109	%	70-130	11.24.2020 16:23	

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Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-8 (1.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-008	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.24.2020 07:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.24.2020 07:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.24.2020 07:56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.24.2020 07:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.24.2020 07:56	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.24.2020 07:56	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.24.2020 07:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 07:56	
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.24.2020 07:56	

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Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-9 (1.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-009 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**974**	5.02	mg/kg	11.24.2020 01:39		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 16:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.2020 16:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 16:45	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	11.24.2020 16:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	11.24.2020 16:45	
o-Terphenyl	84-15-1	105	%	70-130	11.24.2020 16:45	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-9 (1.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-009 Date Collected: 11.23.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 11.23.2020 14:30 % Moisture:

Seq Number: 3143125 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.24.2020 08:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.24.2020 08:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.24.2020 08:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.24.2020 08:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.24.2020 08:16	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.24.2020 08:16	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.24.2020 08:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 08:16	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.24.2020 08:16	

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Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-10 (1.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-010 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**707**	4.99	mg/kg	11.24.2020 01:55		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 17:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.24.2020 17:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 17:07	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	11.24.2020 17:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	11.24.2020 17:07	
o-Terphenyl	84-15-1	111	%	70-130	11.24.2020 17:07	

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Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-10 (1.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-010	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.24.2020 08:37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.24.2020 08:37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.24.2020 08:37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.24.2020 08:37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.24.2020 08:37	U	1
Total Xylenes	1330-20-7	<0.002010	0.002010	mg/kg	11.24.2020 08:37	U	1
Total BTEX		<0.002010	0.002010	mg/kg	11.24.2020 08:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.24.2020 08:37	
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.24.2020 08:37	

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Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-11 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-011 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**641**	4.97	mg/kg	11.24.2020 02:00		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.2020 17:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	**62.4**	49.8	mg/kg	11.24.2020 17:52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.2020 17:52	U	1
Total TPH	PHC635	**62.40**	49.80	mg/kg	11.24.2020 17:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	11.24.2020 17:52	
o-Terphenyl	84-15-1	110	%	70-130	11.24.2020 17:52	

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Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-11 (2.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-011	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.24.2020 10:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.24.2020 10:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.24.2020 10:32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.24.2020 10:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.24.2020 10:32	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.24.2020 10:32	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.24.2020 10:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.24.2020 10:32	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 10:32	

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Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-12 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-012 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**786**	5.04	mg/kg	11.24.2020 02:05		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.2020 18:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**132**	49.8	mg/kg	11.24.2020 18:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.2020 18:14	U	1
Total TPH	PHC635	**132.0**	49.80	mg/kg	11.24.2020 18:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	11.24.2020 18:14	
o-Terphenyl	84-15-1	111	%	70-130	11.24.2020 18:14	

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Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-12 (2.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-012	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.24.2020 10:53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.24.2020 10:53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.24.2020 10:53	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.24.2020 10:53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.24.2020 10:53	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	11.24.2020 10:53	U	1
Total BTEX		<0.001980	0.001980	mg/kg	11.24.2020 10:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.24.2020 10:53	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.24.2020 10:53	

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Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-13 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-013 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**696**	4.98	mg/kg	11.24.2020 02:11		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 18:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**122**	49.9	mg/kg	11.24.2020 18:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 18:36	U	1
Total TPH	PHC635	**122.0**	49.90	mg/kg	11.24.2020 18:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	11.24.2020 18:36	
o-Terphenyl	84-15-1	121	%	70-130	11.24.2020 18:36	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-13 (2.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-013	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.24.2020 11:13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.24.2020 11:13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.24.2020 11:13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.24.2020 11:13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.24.2020 11:13	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.24.2020 11:13	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.24.2020 11:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.24.2020 11:13	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.24.2020 11:13	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-14 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-014 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**548**	4.95	mg/kg	11.24.2020 02:27		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 18:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**58.8**	50.0	mg/kg	11.24.2020 18:58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 18:58	U	1
Total TPH	PHC635	**58.80**	50.00	mg/kg	11.24.2020 18:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	11.24.2020 18:58	
o-Terphenyl	84-15-1	117	%	70-130	11.24.2020 18:58	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-14 (2.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-014	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.24.2020 11:34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.24.2020 11:34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.24.2020 11:34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.24.2020 11:34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.24.2020 11:34	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	11.24.2020 11:34	U	1
Total BTEX		<0.002020	0.002020	mg/kg	11.24.2020 11:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.24.2020 11:34	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 11:34	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-15 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-015 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**587**	5.03	mg/kg	11.24.2020 02:32		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 19:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	**72.8**	50.0	mg/kg	11.24.2020 19:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 19:20	U	1
Total TPH	PHC635	**72.80**	50.00	mg/kg	11.24.2020 19:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	11.24.2020 19:20	
o-Terphenyl	84-15-1	113	%	70-130	11.24.2020 19:20	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-15 (2.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-015	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.24.2020 11:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.24.2020 11:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.24.2020 11:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.24.2020 11:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.24.2020 11:54	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.24.2020 11:54	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.24.2020 11:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.24.2020 11:54	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.24.2020 11:54	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-16 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-016 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**787**	5.00	mg/kg	11.24.2020 02:37		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 19:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	**51.4**	49.9	mg/kg	11.24.2020 19:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 19:42	U	1
Total TPH	PHC635	**51.40**	49.90	mg/kg	11.24.2020 19:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	11.24.2020 19:42	
o-Terphenyl	84-15-1	114	%	70-130	11.24.2020 19:42	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-16 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-016 Date Collected: 11.23.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 11.23.2020 14:30 % Moisture:

Seq Number: 3143125 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.24.2020 12:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.24.2020 12:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.24.2020 12:15	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.24.2020 12:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.24.2020 12:15	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	11.24.2020 12:15	U	1
Total BTEX		<0.002020	0.002020	mg/kg	11.24.2020 12:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 12:15	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.24.2020 12:15	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-17 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-017 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**755**	5.00	mg/kg	11.24.2020 02:43		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.2020 20:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**118**	50.0	mg/kg	11.24.2020 20:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.2020 20:03	U	1
Total TPH	PHC635	**118.0**	50.00	mg/kg	11.24.2020 20:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	11.24.2020 20:03	
o-Terphenyl	84-15-1	115	%	70-130	11.24.2020 20:03	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-17 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-017 Date Collected: 11.23.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 11.23.2020 14:30 % Moisture:

Seq Number: 3143125 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.24.2020 12:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.24.2020 12:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.24.2020 12:35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.24.2020 12:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.24.2020 12:35	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.24.2020 12:35	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.24.2020 12:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.24.2020 12:35	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 12:35	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Bottomhole-18 (2.5')** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-018 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**530**	5.04	mg/kg	11.24.2020 02:48		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 20:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	**241**	49.9	mg/kg	11.24.2020 20:25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 20:25	U	1
Total TPH	PHC635	**241.0**	49.90	mg/kg	11.24.2020 20:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	11.24.2020 20:25	
o-Terphenyl	84-15-1	116	%	70-130	11.24.2020 20:25	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Bottomhole-18 (2.5')**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-018	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.24.2020 12:55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.24.2020 12:55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.24.2020 12:55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.24.2020 12:55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.24.2020 12:55	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.24.2020 12:55	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.24.2020 12:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 12:55	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.24.2020 12:55	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **SW-1** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-019 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**707**	4.95	mg/kg	11.24.2020 02:53		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.2020 20:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**55.0**	49.8	mg/kg	11.24.2020 20:47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.2020 20:47	U	1
Total TPH	PHC635	**55.00**	49.80	mg/kg	11.24.2020 20:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	11.24.2020 20:47	
o-Terphenyl	84-15-1	120	%	70-130	11.24.2020 20:47	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-019	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.24.2020 13:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.24.2020 13:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.24.2020 13:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.24.2020 13:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.24.2020 13:16	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.24.2020 13:16	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.24.2020 13:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 13:16	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.24.2020 13:16	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-2** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-020 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**533**	4.98	mg/kg	11.24.2020 03:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 10:00 % Moisture:

Seq Number: 3143308 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.2020 21:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	**205**	49.9	mg/kg	11.24.2020 21:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.2020 21:09	U	1
Total TPH	PHC635	**205.0**	49.90	mg/kg	11.24.2020 21:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	11.24.2020 21:09	
o-Terphenyl	84-15-1	115	%	70-130	11.24.2020 21:09	

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Whirling Wind 14 North CTB 702

Sample Id:	**SW-2**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-020	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:30	% Moisture:	
Seq Number:	3143125			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.24.2020 13:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.24.2020 13:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.24.2020 13:36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.24.2020 13:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.24.2020 13:36	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.24.2020 13:36	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.24.2020 13:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.24.2020 13:36	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.24.2020 13:36	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-3** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-021 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.9**	4.99	mg/kg	11.24.2020 03:15		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 17:00 % Moisture:

Seq Number: 3143307 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 07:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	**511**	50.0	mg/kg	11.25.2020 07:25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**60.2**	50.0	mg/kg	11.25.2020 07:25		1
Total TPH	PHC635	**571.2**	50.00	mg/kg	11.25.2020 07:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	11.25.2020 07:25	
o-Terphenyl	84-15-1	180	%	70-130	11.25.2020 07:25	**

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**SW-3**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-021	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.23.2020 17:30	UX	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.23.2020 17:30	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.23.2020 17:30	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.23.2020 17:30	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.23.2020 17:30	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	11.23.2020 17:30	U	1
Total BTEX		<0.001980	0.001980	mg/kg	11.23.2020 17:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	129	%	70-130	11.23.2020 17:30	
1,4-Difluorobenzene	540-36-3	89	%	70-130	11.23.2020 17:30	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-4** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-022 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.8**	5.05	mg/kg	11.24.2020 03:30		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 17:00 % Moisture:

Seq Number: 3143307 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.2020 07:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.2020 07:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.2020 07:44	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	11.25.2020 07:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	11.25.2020 07:44	
o-Terphenyl	84-15-1	171	%	70-130	11.25.2020 07:44	**

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Whirling Wind 14 North CTB 702

Sample Id:	**SW-4**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-022	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.2020 17:51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.2020 17:51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.2020 17:51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.2020 17:51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.2020 17:51	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.23.2020 17:51	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.23.2020 17:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	11.23.2020 17:51	
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.2020 17:51	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-5** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-023 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**62.9**	5.05	mg/kg	11.24.2020 03:36		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 17:00 % Moisture:

Seq Number: 3143307 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 08:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**65.0**	50.0	mg/kg	11.25.2020 08:04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 08:04	U	1
Total TPH	PHC635	**65.00**	50.00	mg/kg	11.25.2020 08:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	11.25.2020 08:04	
o-Terphenyl	84-15-1	164	%	70-130	11.25.2020 08:04	**

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Sample Id:	**SW-5**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-023	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.2020 18:12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.2020 18:12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.2020 18:12	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.2020 18:12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.2020 18:12	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.23.2020 18:12	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.23.2020 18:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	11.23.2020 18:12	
4-Bromofluorobenzene	460-00-4	139	%	70-130	11.23.2020 18:12	**

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Whirling Wind 14 North CTB 702

Sample Id: **SW-6** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-024 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.0**	5.00	mg/kg	11.24.2020 03:41		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143310 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 07:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	**57.2**	50.0	mg/kg	11.25.2020 07:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 07:09	U	1
Total TPH	PHC635	**57.20**	50.00	mg/kg	11.25.2020 07:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	11.25.2020 07:09	
o-Terphenyl	84-15-1	111	%	70-130	11.25.2020 07:09	

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Whirling Wind 14 North CTB 702

Sample Id:	**SW-6**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-024	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.2020 18:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.2020 18:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.2020 18:32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.2020 18:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.2020 18:32	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.23.2020 18:32	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.23.2020 18:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	11.23.2020 18:32	
1,4-Difluorobenzene	540-36-3	84	%	70-130	11.23.2020 18:32	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-7** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-025 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**61.4**	5.00	mg/kg	11.24.2020 03:46		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143312 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.2020 04:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	**52.0**	49.9	mg/kg	11.25.2020 04:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.2020 04:55	U	1
Total TPH	PHC635	**52.00**	49.90	mg/kg	11.25.2020 04:55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	11.25.2020 04:55	
o-Terphenyl	84-15-1	124	%	70-130	11.25.2020 04:55	

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Whirling Wind 14 North CTB 702

Sample Id:	**SW-7**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-025	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.2020 18:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.2020 18:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.2020 18:53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.2020 18:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.2020 18:53	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.23.2020 18:53	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.23.2020 18:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	137	%	70-130	11.23.2020 18:53	**
1,4-Difluorobenzene	540-36-3	80	%	70-130	11.23.2020 18:53	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-8** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-026 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**143**	5.00	mg/kg	11.24.2020 03:51		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143312 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 05:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**54.0**	50.0	mg/kg	11.25.2020 05:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 05:17	U	1
Total TPH	PHC635	**54.00**	50.00	mg/kg	11.25.2020 05:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	11.25.2020 05:17	
o-Terphenyl	84-15-1	115	%	70-130	11.25.2020 05:17	

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Whirling Wind 14 North CTB 702

Sample Id:	**SW-8**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-026	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.2020 19:14	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.2020 19:14	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.2020 19:14	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.2020 19:14	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.2020 19:14	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	11.23.2020 19:14	U	1
Total BTEX		<0.002020	0.002020	mg/kg	11.23.2020 19:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	11.23.2020 19:14	
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.23.2020 19:14	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-9** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-027 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**82.4**	5.04	mg/kg	11.24.2020 03:57		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143312 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 05:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**127**	50.0	mg/kg	11.25.2020 05:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 05:40	U	1
Total TPH	PHC635	**127.0**	50.00	mg/kg	11.25.2020 05:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	11.25.2020 05:40	
o-Terphenyl	84-15-1	112	%	70-130	11.25.2020 05:40	

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Whirling Wind 14 North CTB 702

Sample Id:	**SW-9**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-027	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.2020 19:34	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.2020 19:34	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.2020 19:34	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.2020 19:34	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.2020 19:34	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.23.2020 19:34	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.23.2020 19:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	11.23.2020 19:34	
1,4-Difluorobenzene	540-36-3	91	%	70-130	11.23.2020 19:34	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-10** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-028 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 16:55 % Moisture:

Seq Number: 3143150 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.4**	4.98	mg/kg	11.24.2020 04:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143312 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 06:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	**58.2**	50.0	mg/kg	11.25.2020 06:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 06:02	U	1
Total TPH	PHC635	**58.20**	50.00	mg/kg	11.25.2020 06:02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	11.25.2020 06:02	
o-Terphenyl	84-15-1	115	%	70-130	11.25.2020 06:02	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**SW-10**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-028	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.2020 19:55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.2020 19:55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.2020 19:55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.2020 19:55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.2020 19:55	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.23.2020 19:55	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.23.2020 19:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	11.23.2020 19:55	
1,4-Difluorobenzene	540-36-3	88	%	70-130	11.23.2020 19:55	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **SW-11** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-029 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 17:10 % Moisture:

Seq Number: 3143154 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.3**	5.00	mg/kg	11.24.2020 04:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143312 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.2020 06:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**54.5**	49.9	mg/kg	11.25.2020 06:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.2020 06:24	U	1
Total TPH	PHC635	**54.50**	49.90	mg/kg	11.25.2020 06:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	11.25.2020 06:24	
o-Terphenyl	84-15-1	111	%	70-130	11.25.2020 06:24	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**SW-11**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-029	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.2020 20:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.2020 20:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.2020 20:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.2020 20:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.2020 20:16	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.23.2020 20:16	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.23.2020 20:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	131	%	70-130	11.23.2020 20:16	**
1,4-Difluorobenzene	540-36-3	84	%	70-130	11.23.2020 20:16	

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Whirling Wind 14 North CTB 702

Sample Id: **SW-12** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-030 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 17:10 % Moisture:

Seq Number: 3143154 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**59.8**	4.96	mg/kg	11.24.2020 04:49		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143312 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 06:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	**113**	50.0	mg/kg	11.25.2020 06:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 06:46	U	1
Total TPH	PHC635	**113.0**	50.00	mg/kg	11.25.2020 06:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	11.25.2020 06:46	
o-Terphenyl	84-15-1	117	%	70-130	11.25.2020 06:46	

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Whirling Wind 14 North CTB 702

Sample Id:	**SW-12**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-030	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.2020 20:36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.2020 20:36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.2020 20:36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.2020 20:36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.2020 20:36	U	1
Total Xylenes	1330-20-7	<0.002010	0.002010	mg/kg	11.23.2020 20:36	U	1
Total BTEX		<0.002010	0.002010	mg/kg	11.23.2020 20:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	11.23.2020 20:36	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.2020 20:36	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **SW-13** Matrix: Soil Date Received:11.23.2020 13:47

Lab Sample Id: 678792-031 Date Collected: 11.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 11.23.2020 17:10 % Moisture:

Seq Number: 3143154 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**68.3**	5.04	mg/kg	11.24.2020 04:55		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 11.24.2020 15:00 % Moisture:

Seq Number: 3143312 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.25.2020 07:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	**114**	49.8	mg/kg	11.25.2020 07:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.25.2020 07:09	U	1
Total TPH	PHC635	**114.0**	49.80	mg/kg	11.25.2020 07:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	11.25.2020 07:09	
o-Terphenyl	84-15-1	117	%	70-130	11.25.2020 07:09	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**SW-13**	Matrix:	Soil	Date Received:	11.23.2020 13:47
Lab Sample Id:	678792-031	Date Collected:	11.23.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	11.23.2020 14:00	% Moisture:	
Seq Number:	3143121			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.2020 21:59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.2020 21:59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.2020 21:59	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.23.2020 21:59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.2020 21:59	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.23.2020 21:59	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.23.2020 21:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	11.23.2020 21:59	
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.23.2020 21:59	

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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

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QC Summary 678792

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143147 — Matrix: Solid — Date Prep: 11.23.2020
MB Sample Id: 7715839-1-BLK — LCS Sample Id: 7715839-1-BKS — LCSD Sample Id: 7715839-1-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	11.23.2020 22:34	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143150 — Matrix: Solid — Date Prep: 11.23.2020
MB Sample Id: 7715840-1-BLK — LCS Sample Id: 7715840-1-BKS — LCSD Sample Id: 7715840-1-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	261	104	90-110	0	20	mg/kg	11.24.2020 01:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143154 — Matrix: Solid — Date Prep: 11.23.2020
MB Sample Id: 7715841-1-BLK — LCS Sample Id: 7715841-1-BKS — LCSD Sample Id: 7715841-1-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	262	105	262	105	90-110	0	20	mg/kg	11.24.2020 04:23	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143147 — Matrix: Soil — Date Prep: 11.23.2020
Parent Sample Id: 678621-053 — MS Sample Id: 678621-053 S — MSD Sample Id: 678621-053 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	61.8	250	324	105	324	105	90-110	0	20	mg/kg	11.23.2020 22:50	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143147 — Matrix: Soil — Date Prep: 11.23.2020
Parent Sample Id: 678621-063 — MS Sample Id: 678621-063 S — MSD Sample Id: 678621-063 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	70.9	253	333	104	332	103	90-110	0	20	mg/kg	11.24.2020 00:04	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143150 — Matrix: Soil — Date Prep: 11.23.2020
Parent Sample Id: 678792-009 — MS Sample Id: 678792-009 S — MSD Sample Id: 678792-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	974	251	1200	90	1200	90	90-110	0	20	mg/kg	11.24.2020 01:44	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 678792

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143150 — Matrix: Soil — Date Prep: 11.23.2020
Parent Sample Id: 678792-019 — MS Sample Id: 678792-019 S — MSD Sample Id: 678792-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	707	248	934	92	930	90	90-110	0	20	mg/kg	11.24.2020 02:58	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143154 — Matrix: Soil — Date Prep: 11.23.2020
Parent Sample Id: 678473-011 — MS Sample Id: 678473-011 S — MSD Sample Id: 678473-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	172	250	444	109	444	109	90-110	0	20	mg/kg	11.24.2020 05:53	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143154 — Matrix: Soil — Date Prep: 11.23.2020
Parent Sample Id: 678792-029 — MS Sample Id: 678792-029 S — MSD Sample Id: 678792-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	49.3	250	309	104	309	104	90-110	0	20	mg/kg	11.24.2020 04:39	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143308 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715935-1-BLK — LCS Sample Id: 7715935-1-BKS — LCSD Sample Id: 7715935-1-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	1010	101	1020	102	70-130	1	20	mg/kg	11.24.2020 12:16	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-130	0	20	mg/kg	11.24.2020 12:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		122		115		70-130	%	11.24.2020 12:16
o-Terphenyl	104		123		114		70-130	%	11.24.2020 12:16

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143310 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715936-1-BLK — LCS Sample Id: 7715936-1-BKS — LCSD Sample Id: 7715936-1-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	992	99	1060	106	70-130	7	20	mg/kg	11.24.2020 22:15	
Diesel Range Organics (DRO)	<50.0	1000	1100	110	1100	110	70-130	0	20	mg/kg	11.24.2020 22:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		124		126		70-130	%	11.24.2020 22:15
o-Terphenyl	110		117		126		70-130	%	11.24.2020 22:15

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 678792

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143312 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715940-1-BLK — LCS Sample Id: 7715940-1-BKS — LCSD Sample Id: 7715940-1-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	1060	106	1070	107	70-130	1	20	mg/kg	11.24.2020 22:15	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1190	119	70-130	4	20	mg/kg	11.24.2020 22:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		125		130		70-130	%	11.24.2020 22:15
o-Terphenyl	107		125		124		70-130	%	11.24.2020 22:15

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143307 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715934-1-BLK — LCS Sample Id: 7715934-1-BKS — LCSD Sample Id: 7715934-1-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	977	98	989	99	70-130	1	20	mg/kg	11.25.2020 04:48	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1070	107	70-130	4	20	mg/kg	11.25.2020 04:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		115		116		70-130	%	11.25.2020 04:48
o-Terphenyl	159	**	182	**	90		70-130	%	11.25.2020 04:48

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143308 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715935-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.24.2020 11:53	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143310 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715936-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.24.2020 21:53	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143312 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715940-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.24.2020 21:53	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 678792

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143307 — Matrix: Solid — Date Prep: 11.24.2020
MB Sample Id: 7715934-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.25.2020 04:28	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143308 — Matrix: Soil — Date Prep: 11.24.2020
Parent Sample Id: 678792-001 — MS Sample Id: 678792-001 S — MSD Sample Id: 678792-001 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	981	98	1050	105	70-130	7	20	mg/kg	11.24.2020 13:23	
Diesel Range Organics (DRO)	90.6	998	1110	102	1090	100	70-130	2	20	mg/kg	11.24.2020 13:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		113		70-130	%	11.24.2020 13:23
o-Terphenyl	107		106		70-130	%	11.24.2020 13:23

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143310 — Matrix: Soil — Date Prep: 11.24.2020
Parent Sample Id: 678612-001 — MS Sample Id: 678612-001 S — MSD Sample Id: 678612-001 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	1070	107	1070	107	70-130	0	20	mg/kg	11.24.2020 23:22	
Diesel Range Organics (DRO)	<49.9	998	1000	100	1150	115	70-130	14	20	mg/kg	11.24.2020 23:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		120		70-130	%	11.24.2020 23:22
o-Terphenyl	95		108		70-130	%	11.24.2020 23:22

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143312 — Matrix: Soil — Date Prep: 11.24.2020
Parent Sample Id: 678615-001 — MS Sample Id: 678615-001 S — MSD Sample Id: 678615-001 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	1060	106	1050	105	70-130	1	20	mg/kg	11.24.2020 23:22	
Diesel Range Organics (DRO)	<50.0	999	1110	111	1070	107	70-130	4	20	mg/kg	11.24.2020 23:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		114		70-130	%	11.24.2020 23:22
o-Terphenyl	112		108		70-130	%	11.24.2020 23:22

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 678792

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3143307 Matrix: Soil Date Prep: 11.24.2020
Parent Sample Id: 678749-001 MS Sample Id: 678749-001 S MSD Sample Id: 678749-001 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)	<49.8	996	955	96	1010	101	70-130	6	20	mg/kg	11.25.2020 05:46	
Diesel Range Organics (DRO)	<49.8	996	1040	104	1090	109	70-130	5	20	mg/kg	11.25.2020 05:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		97		70-130	%	11.25.2020 05:46
o-Terphenyl	81		93		70-130	%	11.25.2020 05:46

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3143121 Matrix: Solid Date Prep: 11.23.2020
MB Sample Id: 7715845-1-BLK LCS Sample Id: 7715845-1-BKS LCSD Sample Id: 7715845-1-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	0.0939	94	0.107	107	70-130	13	35	mg/kg	11.23.2020 15:08	
Toluene	<0.00200	0.100	0.0993	99	0.100	100	70-130	1	35	mg/kg	11.23.2020 15:08	
Ethylbenzene	<0.00200	0.100	0.117	117	0.107	107	70-130	9	35	mg/kg	11.23.2020 15:08	
m,p-Xylenes	<0.00400	0.200	0.250	125	0.220	110	70-130	13	35	mg/kg	11.23.2020 15:08	
o-Xylene	<0.00200	0.100	0.126	126	0.111	111	70-130	13	35	mg/kg	11.23.2020 15:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		95		104		70-130	%	11.23.2020 15:08
4-Bromofluorobenzene	116		146	**	130		70-130	%	11.23.2020 15:08

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3143125 Matrix: Solid Date Prep: 11.23.2020
MB Sample Id: 7715848-1-BLK LCS Sample Id: 7715848-1-BKS LCSD Sample Id: 7715848-1-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	0.0812	81	70-130	9	35	mg/kg	11.24.2020 03:11	
Toluene	<0.00200	0.100	0.0725	73	0.0805	81	70-130	10	35	mg/kg	11.24.2020 03:11	
Ethylbenzene	<0.00200	0.100	0.0778	78	0.0868	87	70-130	11	35	mg/kg	11.24.2020 03:11	
m,p-Xylenes	<0.00400	0.200	0.154	77	0.172	86	70-130	11	35	mg/kg	11.24.2020 03:11	
o-Xylene	<0.00200	0.100	0.0781	78	0.0865	87	70-130	10	35	mg/kg	11.24.2020 03:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		100		99		70-130	%	11.24.2020 03:11
4-Bromofluorobenzene	108		104		104		70-130	%	11.24.2020 03:11

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 678792

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3143121 Matrix: Soil Date Prep: 11.23.2020

Parent Sample Id: 678792-021 MS Sample Id: 678792-021 S MSD Sample Id: 678792-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.136	137	0.146	146	70-130	7	35	mg/kg	11.23.2020 15:49	X
Toluene	<0.00199	0.0994	0.110	111	0.115	115	70-130	4	35	mg/kg	11.23.2020 15:49	
Ethylbenzene	<0.00199	0.0994	0.100	101	0.102	102	70-130	2	35	mg/kg	11.23.2020 15:49	
m,p-Xylenes	<0.00398	0.199	0.189	95	0.209	105	70-130	10	35	mg/kg	11.23.2020 15:49	
o-Xylene	<0.00199	0.0994	0.0934	94	0.102	102	70-130	9	35	mg/kg	11.23.2020 15:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		104		70-130	%	11.23.2020 15:49
4-Bromofluorobenzene	132	**	129		70-130	%	11.23.2020 15:49

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3143125 Matrix: Soil Date Prep: 11.23.2020

Parent Sample Id: 678792-001 MS Sample Id: 678792-001 S MSD Sample Id: 678792-001 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	0.0694	70	0.0535	54	70-130	26	35	mg/kg	11.24.2020 03:52	X
Toluene	<0.00199	0.0994	0.0658	66	0.0533	53	70-130	21	35	mg/kg	11.24.2020 03:52	X
Ethylbenzene	<0.00199	0.0994	0.0668	67	0.0567	57	70-130	16	35	mg/kg	11.24.2020 03:52	X
m,p-Xylenes	<0.00398	0.199	0.131	66	0.114	57	70-130	14	35	mg/kg	11.24.2020 03:52	X
o-Xylene	<0.00199	0.0994	0.0653	66	0.0583	58	70-130	11	35	mg/kg	11.24.2020 03:52	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	11.24.2020 03:52
4-Bromofluorobenzene	108		110		70-130	%	11.24.2020 03:52

MS/MSD Percent Recovery [D] = 100*(C-A) / B

Relative Percent Difference RPD = 200* | (C-E) / (C+E) |

LCS/LCSD Recovery [D] = 100 * (C) / [B]

Log Difference 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

6198792

Page 1 of 4

Tetra Tech, Inc.

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

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Whirling Wind 14 North CTB 702	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-02349
Invoice to: Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin Dominguez
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: None	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B / BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride / Sulfate / TDS	Chloride	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
	Bottomhole-1 (1')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-2 (1')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-3 (1')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-4 (1')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-5 (1')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-6 (1')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-7 (1.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-8 (1.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-9 (1.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-10 (1.5')	11/23/2020			X				X			1	N	X		X												X							

ANALYSIS REQUEST
(Circle or Specify Method No.)

Relinquished by:	Date: 11/23	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Received by: Date: 11/23/20 Time: 1347

LAB USE ONLY

Sample Temperature 8.1/8.6

REMARKS:

- ☐ STANDARD
- ☒ RUSH: Same Day 24 hr 48 hr (72 hr)
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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Analysis Request of Chain of Custody Record

678792 Page 2 of 4

Tetra Tech, Inc.

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

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Whirling Wind 14 North CTB 702	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-02349
Invoice to: Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin Dominguez
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None		# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
	Bottomhole-11 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-12 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-13 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-14 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-15 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-16 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-17 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	Bottomhole-18 (2.5')	11/23/2020			X				X			1	N	X		X												X							
	SW-1	11/23/2020			X				X			1	N	X		X												X							
	SW-2	11/23/2020			X				X			1	N	X		X												X							

Relinquished by:	Date: 11/23	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Received by: JRAMER Date: 11/23/20 Time: 1347

LAB USE ONLY
Sample Temperature

REMARKS:
- ☐ STANDARD
- ☒ RUSH: Same Day 24 hr 48 hr (72 hr)
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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Analysis Request of Chain of Custody Record

678792

Tetra Tech, Inc.

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

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Whirling Wind 14 North CTB 702	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-02349
Invoice to: Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin Dominguez
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
	SW-3	11/23/2020			X				X			1	N	X		X												X							
	SW-4	11/23/2020			X				X			1	N	X		X												X							
	SW-5	11/23/2020			X				X			1	N	X		X												X							
	SW-6	11/23/2020			X				X			1	N	X		X												X							
	SW-7	11/23/2020			X				X			1	N	X		X												X							
	SW-8	11/23/2020			X				X			1	N	X		X												X							
	SW-9	11/23/2020			X				X			1	N	X		X												X							
	SW-10	11/23/2020			X				X			1	N	X		X												X							
	SW-11	11/23/2020			X				X			1	N	X		X												X							
	SW-12	11/23/2020			X				X			1	N	X		X												X							

ANALYSIS REQUEST
(Circle or Specify Method No.)

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	11/23			11/23	1347
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY
Sample Temperature

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

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Analysis Request of Chain of Custody Record

678792 Page 4 of 4

Tetra Tech, Inc.

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

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Whirling Wind 14 North CTB 702	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-02349
Invoice to: Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin Dominguez
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None		# CONTAINERS	FILTERED (Y/N)
	SW-13	11/23/2020			X				X			1	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
X		X												X							

Relinquished by: Date: 11/23 Time:
Received by: Date: 11/23/20 Time: 1347

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY
Sample Temperature

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

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Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 11.23.2020 01.47.00 PM

Work Order #: 678792

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	8.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	Cooling in progress
#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: 11.23.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 11.25.2020
Jessica Kramer

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Certificate of Analysis Summary 679682

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea Co, NM

Date Received in Lab: Thu 12.03.2020 12:53
Report Date: 12.07.2020 14:55
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	679682-001		679682-002		679682-003		679682-004		679682-005		679682-006	
	Field Id:	Bottom Hole-3 (1-1.5')		Bottom Hole-9 (1-1.5')		Bottom Hole-10 (1-1.5')		Bottom Hole-11 (2.5-3")		Bottom Hole-12 (2.5-3')		Bottom Hole-13 (2.5-3")	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00	
	Analyzed:	12.04.2020 18:29		12.04.2020 18:49		12.04.2020 19:10		12.04.2020 19:30		12.04.2020 22:56		12.04.2020 23:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398	<0.00400	0.00400	<0.00401	0.00401	<0.00404	0.00404	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		<0.002000	0.002000	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000	<0.002020	0.002020	<0.002000	0.002000
Total BTEX		<0.002000	0.002000	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000	<0.002020	0.002020	<0.002000	0.002000
Inorganic Anions by EPA 300/300.1	***Extracted:***	12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00	
	Analyzed:	12.04.2020 08:41		12.04.2020 08:56		12.04.2020 09:02		12.04.2020 09:07		12.04.2020 09:12		12.04.2020 09:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		8.78 X	5.05	10.3	4.96	5.84	4.98	7.84	5.05	8.26	4.99	7.56	5.02
TPH By SW8015 Mod	***Extracted:***	12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00	
	Analyzed:	12.04.2020 13:45		12.04.2020 14:50		12.04.2020 15:11		12.04.2020 15:33		12.04.2020 15:55		12.04.2020 16:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0
Total TPH		<49.90	49.90	<50.00	50.00	<49.90	49.90	<49.80	49.80	<49.90	49.90	<50.00	50.00

BRL - Below Reporting Limit

Jessica Kramer

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

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Certificate of Analysis Summary 679682

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind14 North CTB 702

Project Id: 212C-MD-02349
Contact: Mike Carmona
Project Location: Lea Co, NM

Date Received in Lab: Thu 12.03.2020 12:53
Report Date: 12.07.2020 14:55
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	679682-007		679682-008		679682-009					
	Field Id:	Bottom Hole-16 (2.5-3')		Bottom Hole-17 (2.5-3')		Bottom Hole-19 (2.5-3)					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00					
BTEX by EPA 8021B	***Extracted:***	12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00					
	Analyzed:	12.04.2020 23:36		12.04.2020 23:57		12.05.2020 00:17					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Toluene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
m,p-Xylenes		<0.00403	0.00403	<0.00402	0.00402	<0.00402	0.00402				
o-Xylene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Total Xylenes		<0.002020	0.002020	<0.002010	0.002010	<0.002010	0.002010				
Total BTEX		<0.002020	0.002020	<0.002010	0.002010	<0.002010	0.002010				
Inorganic Anions by EPA 300/300.1	***Extracted:***	12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00					
	Analyzed:	12.04.2020 09:33		12.04.2020 09:39		12.04.2020 09:44					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		7.41	4.98	8.02	4.95	8.08	5.04				
TPH By SW8015 Mod	***Extracted:***	12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00					
	Analyzed:	12.04.2020 16:38		12.04.2020 17:00		12.04.2020 17:22					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8				
Total TPH		<50.00	50.00	<49.90	49.90	<49.80	49.80				

BRL - Below Reporting Limit

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

Jessica Kramer

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Analytical Report 679682

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Whirling Wind14 North CTB 702

212C-MD-02349

12.07.2020

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)

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12.07.2020

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **679682**
Whirling Wind14 North CTB 702
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) 679682. 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. 679682 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,

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

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Sample Cross Reference 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom Hole-3 (1-1.5')	S	12.02.2020 00:00		679682-001
Bottom Hole-9 (1-1.5')	S	12.02.2020 00:00		679682-002
Bottom Hole-10 (1-1.5')	S	12.02.2020 00:00		679682-003
Bottom Hole-11 (2.5-3")	S	12.02.2020 00:00		679682-004
Bottom Hole-12 (2.5-3')	S	12.02.2020 00:00		679682-005
Bottom Hole-13 (2.5-3")	S	12.02.2020 00:00		679682-006
Bottom Hole-16 (2.5-3')	S	12.02.2020 00:00		679682-007
Bottom Hole-17 (2.5-3')	S	12.02.2020 00:00		679682-008
Bottom Hole-19 (2.5-3)	S	12.02.2020 00:00		679682-009

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CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Whirling Wind14 North CTB 702

Project ID: *212C-MD-02349*
Work Order Number(s): *679682*

Report Date: *12.07.2020*
Date Received: *12.03.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3143917 Inorganic Anions by EPA 300/300.1

Lab Sample ID 679683-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 679682-001, -002, -003, -004, -005, -006, -007, -008, -009.

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

Batch: LBA-3144019 BTEX by EPA 8021B

Lab Sample ID 679682-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 679682-001, -002, -003, -004, -005, -006, -007, -008, -009.

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

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-3 (1-1.5')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-001 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.78**	5.05	mg/kg	12.04.2020 08:41	X	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.2020 13:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.2020 13:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.2020 13:45	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	12.04.2020 13:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	12.04.2020 13:45	
o-Terphenyl	84-15-1	92	%	70-130	12.04.2020 13:45	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id:	**Bottom Hole-3 (1-1.5')**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679682-001	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.2020 18:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.2020 18:29	UX	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.2020 18:29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.04.2020 18:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.2020 18:29	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.04.2020 18:29	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.04.2020 18:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.04.2020 18:29	
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.04.2020 18:29	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-9 (1-1.5')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-002 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.3**	4.96	mg/kg	12.04.2020 08:56		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.2020 14:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.2020 14:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.2020 14:50	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.04.2020 14:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	12.04.2020 14:50	
o-Terphenyl	84-15-1	94	%	70-130	12.04.2020 14:50	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-9 (1-1.5')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-002 Date Collected: 12.02.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 12.04.2020 15:00 % Moisture:

Seq Number: 3144019 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.04.2020 18:49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.04.2020 18:49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.04.2020 18:49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.04.2020 18:49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.04.2020 18:49	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	12.04.2020 18:49	U	1
Total BTEX		<0.001990	0.001990	mg/kg	12.04.2020 18:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.04.2020 18:49	
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.04.2020 18:49	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-10 (1-1.5')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-003 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.84**	4.98	mg/kg	12.04.2020 09:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.2020 15:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.2020 15:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.2020 15:11	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	12.04.2020 15:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	12.04.2020 15:11	
o-Terphenyl	84-15-1	93	%	70-130	12.04.2020 15:11	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id:	**Bottom Hole-10 (1-1.5')**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679682-003	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.2020 19:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.2020 19:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.2020 19:10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.04.2020 19:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.2020 19:10	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.04.2020 19:10	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.04.2020 19:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.04.2020 19:10	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.04.2020 19:10	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-11 (2.5-3'')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-004 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.84**	5.05	mg/kg	12.04.2020 09:07		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.2020 15:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.04.2020 15:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.04.2020 15:33	U	1
Total TPH	PHC635	<49.80	49.80	mg/kg	12.04.2020 15:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	12.04.2020 15:33	
o-Terphenyl	84-15-1	95	%	70-130	12.04.2020 15:33	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id:	**Bottom Hole-11 (2.5-3'')**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679682-004	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.2020 19:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.2020 19:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.2020 19:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.2020 19:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.2020 19:30	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.04.2020 19:30	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.04.2020 19:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	12.04.2020 19:30	
1,4-Difluorobenzene	540-36-3	91	%	70-130	12.04.2020 19:30	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-12 (2.5-3')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-005 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.26**	4.99	mg/kg	12.04.2020 09:12		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.2020 15:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.2020 15:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.2020 15:55	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	12.04.2020 15:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	12.04.2020 15:55	
o-Terphenyl	84-15-1	93	%	70-130	12.04.2020 15:55	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-12 (2.5-3')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-005 Date Collected: 12.02.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 12.04.2020 15:00 % Moisture:

Seq Number: 3144019 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.2020 22:56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.2020 22:56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.2020 22:56	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.04.2020 22:56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.2020 22:56	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	12.04.2020 22:56	U	1
Total BTEX		<0.002020	0.002020	mg/kg	12.04.2020 22:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	79	%	70-130	12.04.2020 22:56	
4-Bromofluorobenzene	460-00-4	81	%	70-130	12.04.2020 22:56	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-13 (2.5-3'')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-006 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.56**	5.02	mg/kg	12.04.2020 09:28		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.2020 16:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.2020 16:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.2020 16:17	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.04.2020 16:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	12.04.2020 16:17	
o-Terphenyl	84-15-1	94	%	70-130	12.04.2020 16:17	

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Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id:	**Bottom Hole-13 (2.5-3'')**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679682-006	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.2020 23:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.2020 23:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.2020 23:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.04.2020 23:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.2020 23:16	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.04.2020 23:16	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.04.2020 23:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.04.2020 23:16	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.04.2020 23:16	

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Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-16 (2.5-3')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-007 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.41**	4.98	mg/kg	12.04.2020 09:33		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.2020 16:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.2020 16:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.2020 16:38	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.04.2020 16:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	12.04.2020 16:38	
o-Terphenyl	84-15-1	89	%	70-130	12.04.2020 16:38	

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Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id:	**Bottom Hole-16 (2.5-3')**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679682-007	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.2020 23:36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.2020 23:36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.2020 23:36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.04.2020 23:36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.2020 23:36	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	12.04.2020 23:36	U	1
Total BTEX		<0.002020	0.002020	mg/kg	12.04.2020 23:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.04.2020 23:36	
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.04.2020 23:36	

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Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-17 (2.5-3')** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-008 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.02**	4.95	mg/kg	12.04.2020 09:39		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.2020 17:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.2020 17:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.2020 17:00	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	12.04.2020 17:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	12.04.2020 17:00	
o-Terphenyl	84-15-1	96	%	70-130	12.04.2020 17:00	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id:	**Bottom Hole-17 (2.5-3')**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679682-008	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.04.2020 23:57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.04.2020 23:57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.04.2020 23:57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.04.2020 23:57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.04.2020 23:57	U	1
Total Xylenes	1330-20-7	<0.002010	0.002010	mg/kg	12.04.2020 23:57	U	1
Total BTEX		<0.002010	0.002010	mg/kg	12.04.2020 23:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.04.2020 23:57	
1,4-Difluorobenzene	540-36-3	90	%	70-130	12.04.2020 23:57	

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Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-19 (2.5-3)** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679682-009 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.08**	5.04	mg/kg	12.04.2020 09:44		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.2020 17:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.04.2020 17:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.04.2020 17:22	U	1
Total TPH	PHC635	<49.80	49.80	mg/kg	12.04.2020 17:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	12.04.2020 17:22	
o-Terphenyl	84-15-1	96	%	70-130	12.04.2020 17:22	

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Certificate of Analytical Results 679682

Tetra Tech- Midland, Midland, TX

Whirling Wind14 North CTB 702

Sample Id: **Bottom Hole-19 (2.5-3)**
Lab Sample Id: 679682-009

Matrix: Soil
Date Collected: 12.02.2020 00:00

Date Received:12.03.2020 12:53

Analytical Method: BTEX by EPA 8021B
Tech: KTL
Analyst: KTL
Seq Number: 3144019

Date Prep: 12.04.2020 15:00

Prep Method: SW5035A
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.05.2020 00:17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.05.2020 00:17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.05.2020 00:17	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.05.2020 00:17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.05.2020 00:17	U	1
Total Xylenes	1330-20-7	<0.002010	0.002010	mg/kg	12.05.2020 00:17	U	1
Total BTEX		<0.002010	0.002010	mg/kg	12.05.2020 00:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.05.2020 00:17	
1,4-Difluorobenzene	540-36-3	90	%	70-130	12.05.2020 00:17	

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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

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QC Summary 679682

Tetra Tech- Midland

Whirling Wind14 North CTB 702

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143917 — Matrix: Solid — Date Prep: 12.03.2020
MB Sample Id: 7716381-1-BLK — LCS Sample Id: 7716381-1-BKS — LCSD Sample Id: 7716381-1-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	263	105	261	104	90-110	1	20	mg/kg	12.04.2020 08:30	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143917 — Matrix: Soil — Date Prep: 12.03.2020
Parent Sample Id: 679682-001 — MS Sample Id: 679682-001 S — MSD Sample Id: 679682-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.78	253	274	105	233	89	90-110	16	20	mg/kg	12.04.2020 08:46	X

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143917 — Matrix: Soil — Date Prep: 12.03.2020
Parent Sample Id: 679683-002 — MS Sample Id: 679683-002 S — MSD Sample Id: 679683-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.38	248	269	105	269	105	90-110	0	20	mg/kg	12.04.2020 10:00	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3144064 — Matrix: Solid — Date Prep: 12.04.2020
MB Sample Id: 7716499-1-BLK — LCS Sample Id: 7716499-1-BKS — LCSD Sample Id: 7716499-1-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	885	89	871	87	70-130	2	20	mg/kg	12.04.2020 13:02	
Diesel Range Organics (DRO)	<50.0	1000	899	90	890	89	70-130	1	20	mg/kg	12.04.2020 13:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		99		100		70-130	%	12.04.2020 13:02
o-Terphenyl	101		95		90		70-130	%	12.04.2020 13:02

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3144064 — Matrix: Solid — Date Prep: 12.04.2020
MB Sample Id: 7716499-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.2020 12:40	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 679682

Tetra Tech- Midland

Whirling Wind14 North CTB 702

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3144064 — Matrix: Soil — Date Prep: 12.04.2020
Parent Sample Id: 679682-001 — MS Sample Id: 679682-001 S — MSD Sample Id: 679682-001 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	1020	102	907	91	70-130	12	20	mg/kg	12.04.2020 14:07	
Diesel Range Organics (DRO)	<50.0	999	1060	106	906	91	70-130	16	20	mg/kg	12.04.2020 14:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		91		70-130	%	12.04.2020 14:07
o-Terphenyl	100		86		70-130	%	12.04.2020 14:07

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3144019 — Matrix: Solid — Date Prep: 12.04.2020
MB Sample Id: 7716474-1-BLK — LCS Sample Id: 7716474-1-BKS — LCSD Sample Id: 7716474-1-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	0.0973	97	0.0955	96	70-130	2	35	mg/kg	12.04.2020 16:08	
Toluene	<0.00200	0.100	0.0915	92	0.0905	91	70-130	1	35	mg/kg	12.04.2020 16:08	
Ethylbenzene	<0.00200	0.100	0.0969	97	0.0955	96	70-130	1	35	mg/kg	12.04.2020 16:08	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.194	97	70-130	1	35	mg/kg	12.04.2020 16:08	
o-Xylene	<0.00200	0.100	0.0954	95	0.0949	95	70-130	1	35	mg/kg	12.04.2020 16:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		101		100		70-130	%	12.04.2020 16:08
4-Bromofluorobenzene	107		100		99		70-130	%	12.04.2020 16:08

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3144019 — Matrix: Soil — Date Prep: 12.04.2020
Parent Sample Id: 679682-001 — MS Sample Id: 679682-001 S — MSD Sample Id: 679682-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0717	72	0.0764	76	70-130	6	35	mg/kg	12.04.2020 16:48	
Toluene	<0.00200	0.0998	0.0667	67	0.0688	69	70-130	3	35	mg/kg	12.04.2020 16:48	X
Ethylbenzene	<0.00200	0.0998	0.0750	75	0.0760	76	70-130	1	35	mg/kg	12.04.2020 16:48	
m,p-Xylenes	<0.00399	0.200	0.146	73	0.150	75	70-130	3	35	mg/kg	12.04.2020 16:48	
o-Xylene	<0.00200	0.0998	0.0748	75	0.0782	78	70-130	4	35	mg/kg	12.04.2020 16:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	12.04.2020 16:48
4-Bromofluorobenzene	103		103		70-130	%	12.04.2020 16:48

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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

679682

Client Name: EOG	Site Manager: Mike Carmona
Project Name: Whirling Wind 14 North CTB 702	
Project Location: (county, state) Lea Co, NM	Project #: 212C-MD-02349
Invoice to: EOG - Todd Wells	
Receiving Laboratory: Xenco	Sampler Signature: Conner Moehring
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	TIME	MATRIX WATER	SOIL		PRESERVATIVE METHOD HCL	HNO_3	ICE	None		# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance					Hold
	Bottom Hole-3 (1-1.5')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole-9 (1-1.5')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole-10 (1-1.5')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole-11 (2.5-3')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole-12 (2.5-3')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole -13 (2.5-3')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole-16 (2.5-3')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole-17 (2.5-3')	12/2/2020			X				X			1	N	X		X													X							
	Bottom Hole-19 (2.5-3')	12/2/2020			X				X			1	N	X		X													X							

Relinquished by: Tonia Mabry	Date: 12/3/20	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Received by: Date: 12/3/2020 Time: 12:53
Received by: Date: Time:
Received by: Date: Time:

LAB USE ONLY
Sample Temperature
-5.4/-4.9

REMARKS:
- [ ] STANDARD
- [X] 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: 12.03.2020 12.53.00 PM

Work Order #: 679682

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-4.9
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 12.03.2020

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12.04.2020

Jessica Kramer

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Certificate of Analysis Summary 679683

Tetra Tech- Midland, Midland, TX

Project Name: Whirling Wind 14 North CTB 702

Project Id: 212C-MD02349
Contact: Mike Carmona
Project Location: Lea Co, NM

Date Received in Lab: Thu 12.03.2020 12:53
Report Date: 12.07.2020 14:55
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	679683-001		679683-002		679683-003		679683-004		679683-005		679683-006	
	Field Id:	Sidewall-1		Sidewall-2		Sidewall-3		Sidewall-9		Sidewall-12		Sidewall-13	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00		12.02.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00		12.04.2020 15:00		12.04.2020 16:30	
	Analyzed:	12.05.2020 00:38		12.05.2020 00:58		12.05.2020 01:19		12.05.2020 01:39		12.05.2020 02:00		12.05.2020 05:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00397	0.00397	<0.00397	0.00397	<0.00403	0.00403	<0.00400	0.00400	<0.00402	0.00402	<0.00399	0.00399
o-Xylene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.001980	0.001980	<0.001980	0.001980	<0.002020	0.002020	<0.002000	0.002000	<0.002010	0.002010	<0.002000	0.002000
Total BTEX		<0.001980	0.001980	<0.001980	0.001980	<0.002020	0.002020	<0.002000	0.002000	<0.002010	0.002010	<0.002000	0.002000
Inorganic Anions by EPA 300/300.1	***Extracted:***	12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00		12.03.2020 17:00	
	Analyzed:	12.04.2020 09:49		12.04.2020 09:54		12.04.2020 10:11		12.04.2020 10:16		12.04.2020 10:32		12.04.2020 10:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11.0	5.00	9.38	4.95	7.98	5.04	7.89	5.05	7.48	5.00	8.11	5.00
TPH By SW8015 Mod	***Extracted:***	12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00		12.04.2020 10:00	
	Analyzed:	12.04.2020 18:27		12.04.2020 18:48		12.04.2020 19:10		12.04.2020 19:31		12.04.2020 19:52		12.04.2020 20:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH		<50.00	50.00	<50.00	50.00	<49.90	49.90	<50.00	50.00	<49.90	49.90	<50.00	50.00

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 679683

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Whirling Wind 14 North CTB 702

212C-MD02349

12.07.2020

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)

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12.07.2020

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **679683**
Whirling Wind 14 North CTB 702
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) 679683. 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. 679683 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,

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

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Sample Cross Reference 679683

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Sidewall-1	S	12.02.2020 00:00		679683-001
Sidewall-2	S	12.02.2020 00:00		679683-002
Sidewall-3	S	12.02.2020 00:00		679683-003
Sidewall-9	S	12.02.2020 00:00		679683-004
Sidewall-12	S	12.02.2020 00:00		679683-005
Sidewall-13	S	12.02.2020 00:00		679683-006

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CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Whirling Wind 14 North CTB 702

Project ID: *212C-MD02349*
Work Order Number(s): *679683*

Report Date: *12.07.2020*
Date Received: *12.03.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 679683

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Sidewall-1** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679683-001 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.0**	5.00	mg/kg	12.04.2020 09:49		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.2020 18:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.2020 18:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.2020 18:27	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.04.2020 18:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	12.04.2020 18:27	
o-Terphenyl	84-15-1	98	%	70-130	12.04.2020 18:27	

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Certificate of Analytical Results 679683

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Sidewall-1**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679683-001	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.05.2020 00:38	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.05.2020 00:38	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.05.2020 00:38	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.05.2020 00:38	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.05.2020 00:38	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	12.05.2020 00:38	U	1
Total BTEX		<0.001980	0.001980	mg/kg	12.05.2020 00:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.05.2020 00:38	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.05.2020 00:38	

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Certificate of Analytical Results 679683

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Sidewall-2** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679683-002 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.38**	4.95	mg/kg	12.04.2020 09:54		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.2020 18:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.2020 18:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.2020 18:48	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.04.2020 18:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	12.04.2020 18:48	
o-Terphenyl	84-15-1	94	%	70-130	12.04.2020 18:48	

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Certificate of Analytical Results 679683

Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Sidewall-2**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679683-002	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.05.2020 00:58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.05.2020 00:58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.05.2020 00:58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.05.2020 00:58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.05.2020 00:58	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	12.05.2020 00:58	U	1
Total BTEX		<0.001980	0.001980	mg/kg	12.05.2020 00:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.05.2020 00:58	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.05.2020 00:58	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Sidewall-3** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679683-003 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.98**	5.04	mg/kg	12.04.2020 10:11		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.2020 19:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.2020 19:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.2020 19:10	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	12.04.2020 19:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	12.04.2020 19:10	
o-Terphenyl	84-15-1	101	%	70-130	12.04.2020 19:10	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Sidewall-3**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679683-003	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.05.2020 01:19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.05.2020 01:19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.05.2020 01:19	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.05.2020 01:19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.05.2020 01:19	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	12.05.2020 01:19	U	1
Total BTEX		<0.002020	0.002020	mg/kg	12.05.2020 01:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.05.2020 01:19	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.05.2020 01:19	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Sidewall-9** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679683-004 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.89**	5.05	mg/kg	12.04.2020 10:16		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.2020 19:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.2020 19:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.2020 19:31	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.04.2020 19:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	12.04.2020 19:31	
o-Terphenyl	84-15-1	98	%	70-130	12.04.2020 19:31	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Sidewall-9**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679683-004	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.05.2020 01:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.05.2020 01:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.05.2020 01:39	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.05.2020 01:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.05.2020 01:39	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.05.2020 01:39	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.05.2020 01:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.05.2020 01:39	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.05.2020 01:39	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Sidewall-12** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679683-005 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.48**	5.00	mg/kg	12.04.2020 10:32		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.04.2020 19:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.04.2020 19:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.04.2020 19:52	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	12.04.2020 19:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	12.04.2020 19:52	
o-Terphenyl	84-15-1	110	%	70-130	12.04.2020 19:52	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Sidewall-12**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679683-005	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 15:00	% Moisture:	
Seq Number:	3144019			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.05.2020 02:00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.05.2020 02:00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.05.2020 02:00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.05.2020 02:00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.05.2020 02:00	U	1
Total Xylenes	1330-20-7	<0.002010	0.002010	mg/kg	12.05.2020 02:00	U	1
Total BTEX		<0.002010	0.002010	mg/kg	12.05.2020 02:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.05.2020 02:00	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.05.2020 02:00	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id: **Sidewall-13** Matrix: Soil Date Received:12.03.2020 12:53

Lab Sample Id: 679683-006 Date Collected: 12.02.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 12.03.2020 17:00 % Moisture:

Seq Number: 3143917 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.11**	5.00	mg/kg	12.04.2020 10:37		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 12.04.2020 10:00 % Moisture:

Seq Number: 3144064 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.2020 20:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.2020 20:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.2020 20:14	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.04.2020 20:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-130	12.04.2020 20:14	
o-Terphenyl	84-15-1	111	%	70-130	12.04.2020 20:14	

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Tetra Tech- Midland, Midland, TX

Whirling Wind 14 North CTB 702

Sample Id:	**Sidewall-13**	Matrix:	Soil	Date Received:	12.03.2020 12:53
Lab Sample Id:	679683-006	Date Collected:	12.02.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	12.04.2020 16:30	% Moisture:	
Seq Number:	3144020			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.05.2020 05:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.05.2020 05:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.05.2020 05:43	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.05.2020 05:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.05.2020 05:43	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.05.2020 05:43	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.05.2020 05:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.05.2020 05:43	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.05.2020 05:43	

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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

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QC Summary 679683

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143917 — Matrix: Solid — Date Prep: 12.03.2020
MB Sample Id: 7716381-1-BLK — LCS Sample Id: 7716381-1-BKS — LCSD Sample Id: 7716381-1-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	263	105	261	104	90-110	1	20	mg/kg	12.04.2020 08:30	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143917 — Matrix: Soil — Date Prep: 12.03.2020
Parent Sample Id: 679682-001 — MS Sample Id: 679682-001 S — MSD Sample Id: 679682-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.78	253	274	105	233	89	90-110	16	20	mg/kg	12.04.2020 08:46	X

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3143917 — Matrix: Soil — Date Prep: 12.03.2020
Parent Sample Id: 679683-002 — MS Sample Id: 679683-002 S — MSD Sample Id: 679683-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.38	248	269	105	269	105	90-110	0	20	mg/kg	12.04.2020 10:00	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3144064 — Matrix: Solid — Date Prep: 12.04.2020
MB Sample Id: 7716499-1-BLK — LCS Sample Id: 7716499-1-BKS — LCSD Sample Id: 7716499-1-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	885	89	871	87	70-130	2	20	mg/kg	12.04.2020 13:02	
Diesel Range Organics (DRO)	<50.0	1000	899	90	890	89	70-130	1	20	mg/kg	12.04.2020 13:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		99		100		70-130	%	12.04.2020 13:02
o-Terphenyl	101		95		90		70-130	%	12.04.2020 13:02

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3144064 — Matrix: Solid — Date Prep: 12.04.2020
MB Sample Id: 7716499-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.2020 12:40	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 679683

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3144064 Matrix: Soil Date Prep: 12.04.2020
Parent Sample Id: 679682-001 MS Sample Id: 679682-001 S MSD Sample Id: 679682-001 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	1020	102	907	91	70-130	12	20	mg/kg	12.04.2020 14:07	
Diesel Range Organics (DRO)	<50.0	999	1060	106	906	91	70-130	16	20	mg/kg	12.04.2020 14:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		91		70-130	%	12.04.2020 14:07
o-Terphenyl	100		86		70-130	%	12.04.2020 14:07

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3144019 Matrix: Solid Date Prep: 12.04.2020
MB Sample Id: 7716474-1-BLK LCS Sample Id: 7716474-1-BKS LCSD Sample Id: 7716474-1-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	0.0973	97	0.0955	96	70-130	2	35	mg/kg	12.04.2020 16:08	
Toluene	<0.00200	0.100	0.0915	92	0.0905	91	70-130	1	35	mg/kg	12.04.2020 16:08	
Ethylbenzene	<0.00200	0.100	0.0969	97	0.0955	96	70-130	1	35	mg/kg	12.04.2020 16:08	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.194	97	70-130	1	35	mg/kg	12.04.2020 16:08	
o-Xylene	<0.00200	0.100	0.0954	95	0.0949	95	70-130	1	35	mg/kg	12.04.2020 16:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		101		100		70-130	%	12.04.2020 16:08
4-Bromofluorobenzene	107		100		99		70-130	%	12.04.2020 16:08

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3144020 Matrix: Solid Date Prep: 12.04.2020
MB Sample Id: 7716475-1-BLK LCS Sample Id: 7716475-1-BKS LCSD Sample Id: 7716475-1-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	0.0941	94	0.0940	94	70-130	0	35	mg/kg	12.05.2020 03:01	
Toluene	<0.00200	0.100	0.0870	87	0.0882	88	70-130	1	35	mg/kg	12.05.2020 03:01	
Ethylbenzene	<0.00200	0.100	0.0906	91	0.0958	96	70-130	6	35	mg/kg	12.05.2020 03:01	
m,p-Xylenes	<0.00400	0.200	0.180	90	0.187	94	70-130	4	35	mg/kg	12.05.2020 03:01	
o-Xylene	<0.00200	0.100	0.0900	90	0.0915	92	70-130	2	35	mg/kg	12.05.2020 03:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		100		95		70-130	%	12.05.2020 03:01
4-Bromofluorobenzene	105		98		92		70-130	%	12.05.2020 03:01

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

eurofins | Environment Testing Xenco

QC Summary 679683

Tetra Tech- Midland

Whirling Wind 14 North CTB 702

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3144019 Matrix: Soil Date Prep: 12.04.2020

Parent Sample Id: 679682-001 MS Sample Id: 679682-001 S MSD Sample Id: 679682-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0717	72	0.0764	76	70-130	6	35	mg/kg	12.04.2020 16:48	
Toluene	<0.00200	0.0998	0.0667	67	0.0688	69	70-130	3	35	mg/kg	12.04.2020 16:48	X
Ethylbenzene	<0.00200	0.0998	0.0750	75	0.0760	76	70-130	1	35	mg/kg	12.04.2020 16:48	
m,p-Xylenes	<0.00399	0.200	0.146	73	0.150	75	70-130	3	35	mg/kg	12.04.2020 16:48	
o-Xylene	<0.00200	0.0998	0.0748	75	0.0782	78	70-130	4	35	mg/kg	12.04.2020 16:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	12.04.2020 16:48
4-Bromofluorobenzene	103		103		70-130	%	12.04.2020 16:48

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3144020 Matrix: Soil Date Prep: 12.04.2020

Parent Sample Id: 679461-001 MS Sample Id: 679461-001 S MSD Sample Id: 679461-001 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	0.0854	86	0.0962	97	70-130	12	35	mg/kg	12.05.2020 03:42	
Toluene	<0.00199	0.0994	0.0791	80	0.0906	91	70-130	14	35	mg/kg	12.05.2020 03:42	
Ethylbenzene	<0.00199	0.0994	0.0845	85	0.0974	98	70-130	14	35	mg/kg	12.05.2020 03:42	
m,p-Xylenes	<0.00398	0.199	0.165	83	0.190	95	70-130	14	35	mg/kg	12.05.2020 03:42	
o-Xylene	<0.00199	0.0994	0.0815	82	0.0940	95	70-130	14	35	mg/kg	12.05.2020 03:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		70-130	%	12.05.2020 03:42
4-Bromofluorobenzene	104		103		70-130	%	12.05.2020 03:42

MS/MSD Percent Recovery [D] = 100*(C-A) / B

Relative Percent Difference RPD = 200* | (C-E) / (C+E) |

LCS/LCSD Recovery [D] = 100 * (C) / [B]

Log Difference 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.

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

679683

Client Name: EOG	Site Manager: Mike Carmona
Project Name: Whirling Wind 14 North CTB 702	
Project Location: (county, state) Lea Co, NM	Project #: 212C-MD-02349
Invoice to: EOG - Todd Wells	
Receiving Laboratory: Xenco	Sampler Signature: Conner Moehring
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	TIME	MATRIX WATER	SOIL	PRESERVATIVE METHOD HCL	HNO_3	ICE	None	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCBs 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	Hold
	Sidewall-1	12/2/2020			X			X		1	N	X		X												X				
	Sidewall-2	12/2/2020			X			X		1	N	X		X												X				
	Sidewall-3	12/2/2020			X			X		1	N	X		X												X				
	Sidewall-9	12/2/2020			X			X		1	N	X		X												X				
	Sidewall-12	12/2/2020			X			X		1	N	X		X												X				
	Sidewall-13	12/2/2020			X			X		1	N	X		X												X				

Relinquished by: Date: 12/3/20 Time:
Received by: Date: 12/3/2020 Time: 12:53

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY
Sample Temperature
-5.4/4.9

REMARKS:
- [ ] STANDARD
- [X] 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: 12.03.2020 12.53.00 PM

Work Order #: 679683

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-4.9
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 12.03.2020

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12.04.2020

Jessica Kramer

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

Operator:	OGRID:
EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	7377
	Action Number: 43907
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	9/22/2021