

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	NRM2030426190
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Endeavor Energy Resources, LP	OGRID	190595
Contact Name	Teffanie Fawks	Contact Telephone	432-262-4203
Contact email	teffanies@eeronline.com	Incident # (assigned by OCD)	
Contact mailing address	110 N. Marienfeld, Suite 200, Midland, TX 79706		

Location of Release Source

Latitude 33.622009 Longitude -103.569111
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	State 22 Water Transfer Line	Site Type	Battery
Date Release Discovered	6/7/2020	API# (if applicable)	

Unit Letter	Section	Township	Range	County
G	16	8S	33E	Chaves

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)	0.2	Volume Recovered (bbls)	0.1
☒ Produced Water	Volume Released (bbls)	18.1	Volume Recovered (bbls)	7.9
	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

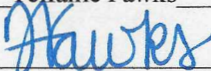
Busted line underground coming from a nearby water tank was transferring water to swd.

Incident ID	NRM2030426190
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☒ The source of the release has been stopped.	
☒ The impacted area has been secured to protect human health and the environment.	
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Teffanie Fawks</u> Title: <u>HSE Environmental Field Tech</u>	
Signature: <u></u> Date: <u>10/20/20</u>	
email: <u>teffanies@eeronline.com</u> Telephone: <u>432-262-4203</u>	
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u> Date: <u>10/30/2020</u>	

State 22 Water Trans. line

NRM2030426190



Volume Calculation

ID	Area (Ft ²)	Depth (Ft)	%Porosity/ Saturation	Volume (Ft ³)	Volume (bbls)
Area 1	465	0.50	0.15	34.88	6.2
Area 2	1,042	0.08	0.15	13.03	2.3
Area 3	3,069	0.02	0.15	9.59	1.7

Volume of Liquid Remaining in Soil:	10	bbls
Volume Recovered:	8	bbls
Total Volume:	18	bbls
Oil (Approximate)	1.0	%
Volume of Oil Released:	0.2	bbls
Volume of Water Released:	18.1	bbls
Volume of Oil Recovered:	0.08	
Volume of Water Recovered:	7.9	

Incident ID	NRM2030426190
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?	<u>~132</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

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

Printed Name: Teffanie Fawks

Title: Environmental Technician

Signature: *Teffanie Fawks*

Date: 10/20/20

email: teffanies@eeronline.com

Telephone: 432-262-4203

OCD Only

Received by: Ramona Marcus

Date: 10/30/2020

State 22 Water Trans.

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District RP	
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Application ID	

Remediation Plan

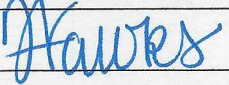
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Teffanie Fawks Title: Environmental Technician
Signature:  Date: 10/20/20
email: teffanies@eeronline.com Telephone: 432-262-4203

OCD Only

Received by: Ramona Marcus Date: 10/30/2020

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State 22 Water Transfer

NRM2030426190

Site Assessment Report and Proposed Remediation Workplan

Endeavor Energy Resources, LP State 22 Water Transfer

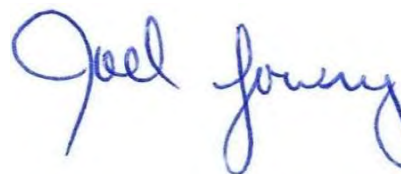
Chaves County, New Mexico
Unit Letter G, Section 16, Township 8 South, Range 33 East
Latitude 33.622009 North, Longitude 103.569111 West
NMOCD Reference No. pending

Prepared By:

Etech Environmental & Safety Solutions, Inc.
3100 Plains Highway
Lovington, New Mexico 88260



Matthew Grieco



Joel W. Lowry



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- Appendix C - Laboratory Analytical Reports
- Appendix D - Photographic Log

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Endeavor Energy Resources, LP, has prepared this Report for the Release Site known as the State 22 Water Transfer. Details of the release are summarized below:

Location of Release Source

Latitude: 33.622009 Longitude: -103.569111

Provided GPS are in WGS84 format.

Site Name:	State 22 Water Transfer	Site Type:	Tank Battery
Date Release Discovered:	6/7/2020	API # (if applicable):	N/A

Unit Letter	Section	Township	Range	County
G	16	8S	33E	Chaves

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

Nature and Volume of Release

☒ Crude Oil	Volume Released (bbls)	0.2	Volume Recovered (bbls)	0.1
☒ Produced Water	Volume Released (bbls)	18.1	Volume Recovered (bbls)	7.9
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?	☒ Yes ☐ No ☐ N/A		
☐ Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
☐ Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
☐ Other (describe)	Volume/Weight Released		Volume/Weight Recovered	

Cause of Release:

Busted line underground coming from a nearby water tank was transferring water to swd.

Initial Response

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data, published information, and/or well gauging data. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	~132 Ft	
Did the 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 any 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 the 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

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1 & 2.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release			
Probable Depth to Groundwater	Constituent	Method	Limit
~132 Ft	Chloride	EPA 300.0 or SM4500 Cl B	20000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2500 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1000 mg/kg
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg

4.0 INITIAL SITE ASSESSMENT

On June 11, 2020, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores were advanced within the release margins in an effort to determine the vertical extent of soil impacts. In addition, hand-augered soil bores were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of soil impacts. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing a Photoionization Detector (PID) and/or concentrations of chloride utilizing a Hach Quantab ® chloride test kit.

Based on field observations and field test data, eleven (11) delineation soil samples (SH @ Surf., SH @ 1', NH @ Surf., NH @ 1', WHA @ Surf., WHA @ 1', V2 @ 1' R, V1 @ 2.5' R, V3 @ 2' R, EHB @ Surf., and EHB @ 1') were submitted to the laboratory for analysis of BTEX, TPH and/or Chloride. Based on laboratory analytical results, the horizontal extent of affected soil impacted above the NMOCD Closure Criteria was adequately defined. Due to hand auger refusal, the vertical extent of affected soil was not adequately defined.

On June 24, 2020, Etech returned to the site to complete the initial site assessment. A series of test trenches were advanced within the release margins in an effort to determine the vertical extent of soil impacts. Field soil samples were collected from the test trenches and field-screened for the presence of Volatile Organic Compounds utilizing a Photoionization Detector (PID) and/or concentrations of chloride utilizing a Hach Quantab ® chloride test kit.

Based on field observations and field test data, five (5) delineation soil samples (V1 @ 3', V1 @ 4', V2 @ 2', V3 @ 3', V3 @ 4') were submitted to the laboratory for analysis of BTEX, TPH and/or Chloride. Based on laboratory analytical results, soil was not affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard beyond 4 Ft. bgs in the areas characterized by sample points V1 and V3, and beyond 2 Ft bgs in the area characterized by sample point V2. The vertical extent of affected soil was adequately defined.

A "Site & Sample Location Map" is provided as Figure 3. Field data and soil profile logs, if applicable, are provided as Appendix B. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

5.0 PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment, Endeavor Energy Resources, LP proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in the areas characterized by sample points V1 and V3 to a depth of approximately 4 Ft. bgs, and V2 to a depth of approximately 2 Ft. bgs.
- The floor and sidewalls of the excavated area will be advanced until laboratory analytical results indicate impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard has been removed.
- Excavated material will be temporarily stockpiled on-site, then transported to an NMOCD-approved disposal facility.
- Upon excavating impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard, collect the requisite excavation confirmation soil samples.
- Upon receiving laboratory analytical results from excavation confirmation soil samples, backfill the excavated area with locally sourced, non-impacted "like" material.
- Excavation backfill will be contoured to match the surrounding topography.
- Upon completion of remediation activities, prepare a Remediation Summary and Site Closure Request detailing remediation activities and the results of confirmation soil samples.

6.0 SAMPLING PLAN

Upon completion of excavation activities, representative five-point composite excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear ft. A minimum of one (1) representative five-point composite excavation confirmation soil sample will be collected from the base of the excavated area representing every 400 square feet. Additional, discrete grab samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

7.0 TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of the Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment it is estimated that approximately 600 cubic yards is in need of removal.

8.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Areas affected by remediation and closure activities will be substantially restored to the condition that existed prior to the release, to the extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture during the first favorable growing season following closure of the site.

9.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Site Assessment Report and Proposed Remediation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Endeavor Energy Resources, LP. Use of the information contained in this report is prohibited without the consent of Etech and/or Endeavor Energy Resources, LP.

10.0 DISTRIBUTION

Endeavor Energy Resources, LP

110 N. Marienfeld St

Suite 200

Midland, TX 79701

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1

1220 South St. Francis Drive

Santa Fe, NM 87505

Hobbs Field Office

New Mexico State Land Office

2827 North Dal Paso Street

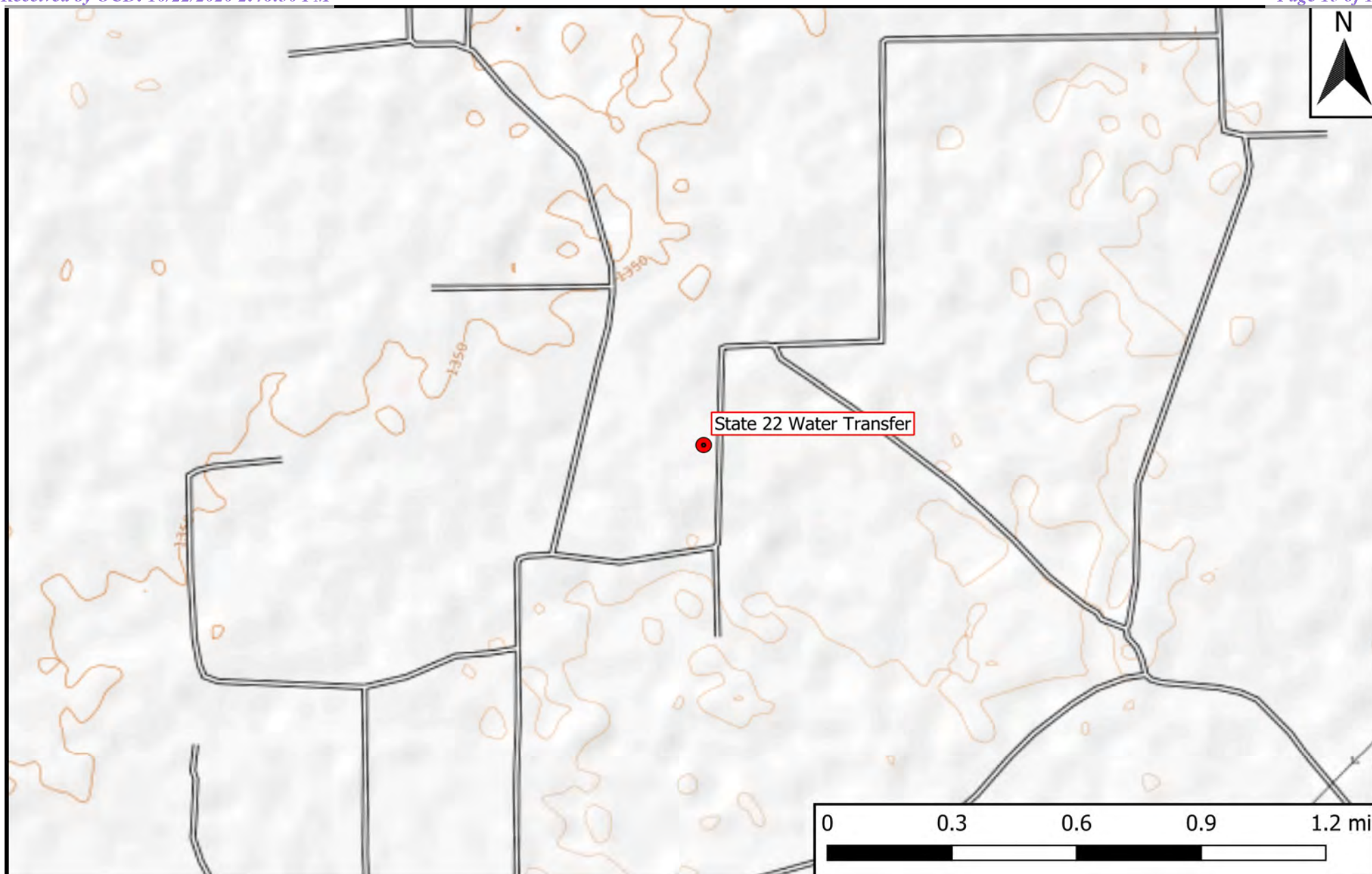
Suite 117

Hobbs, NM 88240

(Electronic Submission)

Figure 1

Topographic Map



Legend

 Site Location

Figure 1
Topographic Map
Endeavor Energy Resources, LP
State 22 Water Transfer
GPS: 33.622009, -103.569111
Chaves County



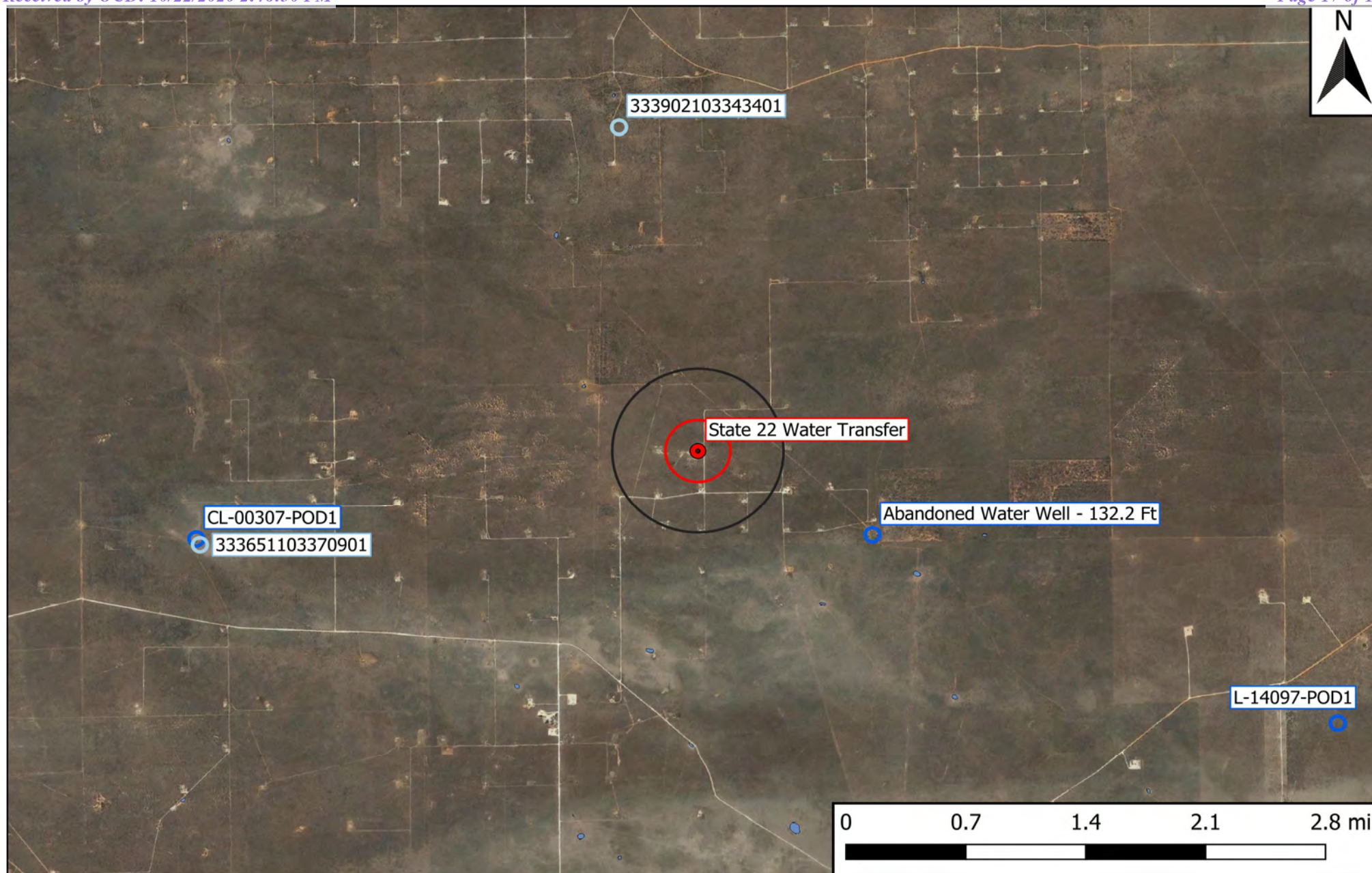
Drafted: mag

Checked: jwl

Date: 6/10/20

Figure 2

Aerial Proximity Map



Legend

- | | |
|--|---|
| ● Site Location | 0.5 Mi Radius |
| ○ Well - NMOSE | 1000 Ft Radius |
| ○ Well - USGS | 1% Annual Flood Chance |
| High Karst | Lake/Freshwater Pond |
| Potash Mine Workings | Emergent/Forested Wetlands |
| | Riverine |

Figure 2
Aerial Map
Endeavor Energy Resources, LP
State 22 Water Transfer
GPS: 33.622009, -103.569111
Chaves County



Drafted: mag

Checked: jwl

Date: 7/7/20

Figure 3

Site and Sample Location Map

**Legend**

-  Sample Point
-  Release Area

Figure 3

Site and Sample Location Map
Endeavor Energy Resources, LP
State 22 Water Transfer
GPS: 33.622009, -103.569111
Chaves County



Drafted: mag

Checked: jwl

Date: 7/7/20

Table 1
Concentrations of BTEX, TPH, and/or Chloride in Soil

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Endeavor Energy Resources, LP
State 22 Water Transfer
NMOCD Ref. #: pending

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	20000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SH @ Surface	6/11/2020	0'	In-Situ	<0.00200	0.00203	<49.9	117	117	59.5	177	636
SH @ 1'	6/11/2020	1'	In-Situ	<0.00199	<0.00199	<50.0	115	115	52.6	168	65.1
NH @ Surface	6/11/2020	0'	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	7.21
NH @ 1'	6/11/2020	1'	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<5.01
WHA @ Surface	6/11/2020	0'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
WHA @ 1'	6/11/2020	1'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
V2 @ 1' R	6/11/2020	1'	In-Situ	<0.00201	0.00277	<49.8	<49.8	<49.8	<49.8	<49.8	14,700
V1 @ 2.5' R	6/11/2020	2.5'	In-Situ	0.00909	0.434	<50.0	274	274	<50.0	274	1,060
V3 @ 2' R	6/11/2020	2'	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	13,300
EHB @ Surface	6/11/2020	0'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	47.9
EHB @ 1'	6/11/2020	1'	In-Situ	<0.00200	<0.00200	<49.8	57.9	57.9	<49.8	57.9	35.6
V1 @ 3'	6/24/2020	3'	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	4,970
V1 @ 4'	6/24/2020	4'	In-Situ	<0.00200	<0.00200	<50.0	449	449	50.7	500	1,600
V2 @ 2'	6/24/2020	2'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	461
V3 @ 3'	6/24/2020	3'	In-Situ	<0.00201	<0.00201	<49.9	151	151	<49.9	151	1,280
V3 @ 4'	6/24/2020	4'	In-Situ	<0.00201	<0.00201	<50.0	92.5	92.5	<50.0	92.5	514

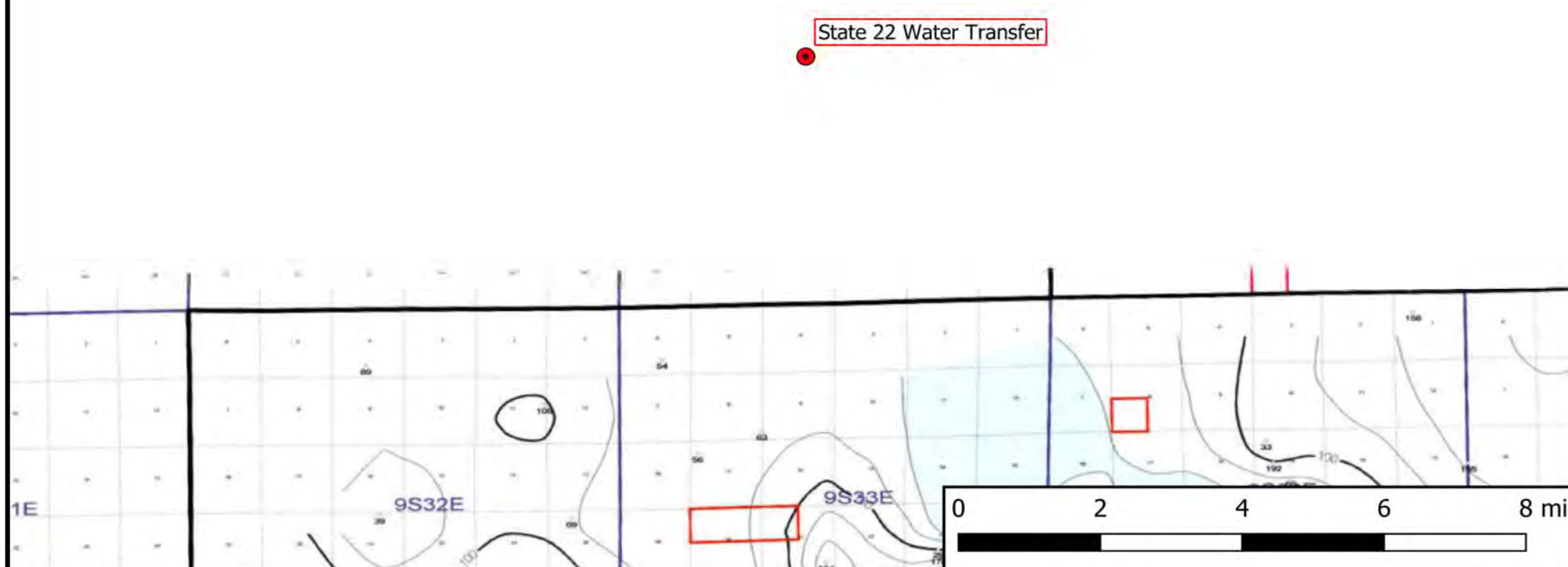
NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Appendix A

Depth to Groundwater Information



Legend

 Site Location**Figure 4**

Inferred Depth to Groundwater Trend Map
Endeavor Energy Resources, LP
State 22 Water Transfer
GPS: 33.622009, -103.569111
Chaves County



Drafted: mag

Checked: jwl

Date: 6/10/20



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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CL 00314 POD1		CL	CH	1	2	2	34	08S	33E	634611	3716897	4663	220	157	63
CL 00307 POD1		CL	CH	2	3	4	13	08S	32E	628014	3720298	4791	195	165	30

Average Depth to Water: **161 feet**

Minimum Depth: **157 feet**

Maximum Depth: **165 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 632727.28

Northing (Y): 3721164.18

Radius: 4830

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

6/10/20 9:30 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CL 00307	POD1	2	3	4	13	08S	32E	628014	3720298

x

Driller License: 1497 **Driller Company:** COX DRILLING

Driller Name: COX, TOM W.

Drill Start Date: 05/15/2015

Drill Finish Date: 05/15/2015

Plug Date:

Log File Date: 05/29/2015

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 1 GPM

Casing Size: 5.00

Depth Well: 195 feet

Depth Water: 165 feet

x

Water Bearing Stratifications:

Top	Bottom	Description
165	175	Sandstone/Gravel/Conglomerate

x

Casing Perforations:

Top	Bottom
125	195

x

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

6/10/20 9:30 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CL 00314	POD1	1	2	2	34	08S	33E	634611	3716897

x

Driller License: 1626 **Driller Company:** TAYLOR, ROY ALLEN

Driller Name: TAYLOR, ROY A.

Drill Start Date: 04/18/2016	Drill Finish Date: 04/20/2016	Plug Date:
Log File Date: 04/29/2016	PCW Rcv Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield: 5 GPM
Casing Size: 5.00	Depth Well: 220 feet	Depth Water: 157 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	116	135	Sandstone/Gravel/Conglomerate
	135	185	Sandstone/Gravel/Conglomerate
	182	205	Sandstone/Gravel/Conglomerate

x

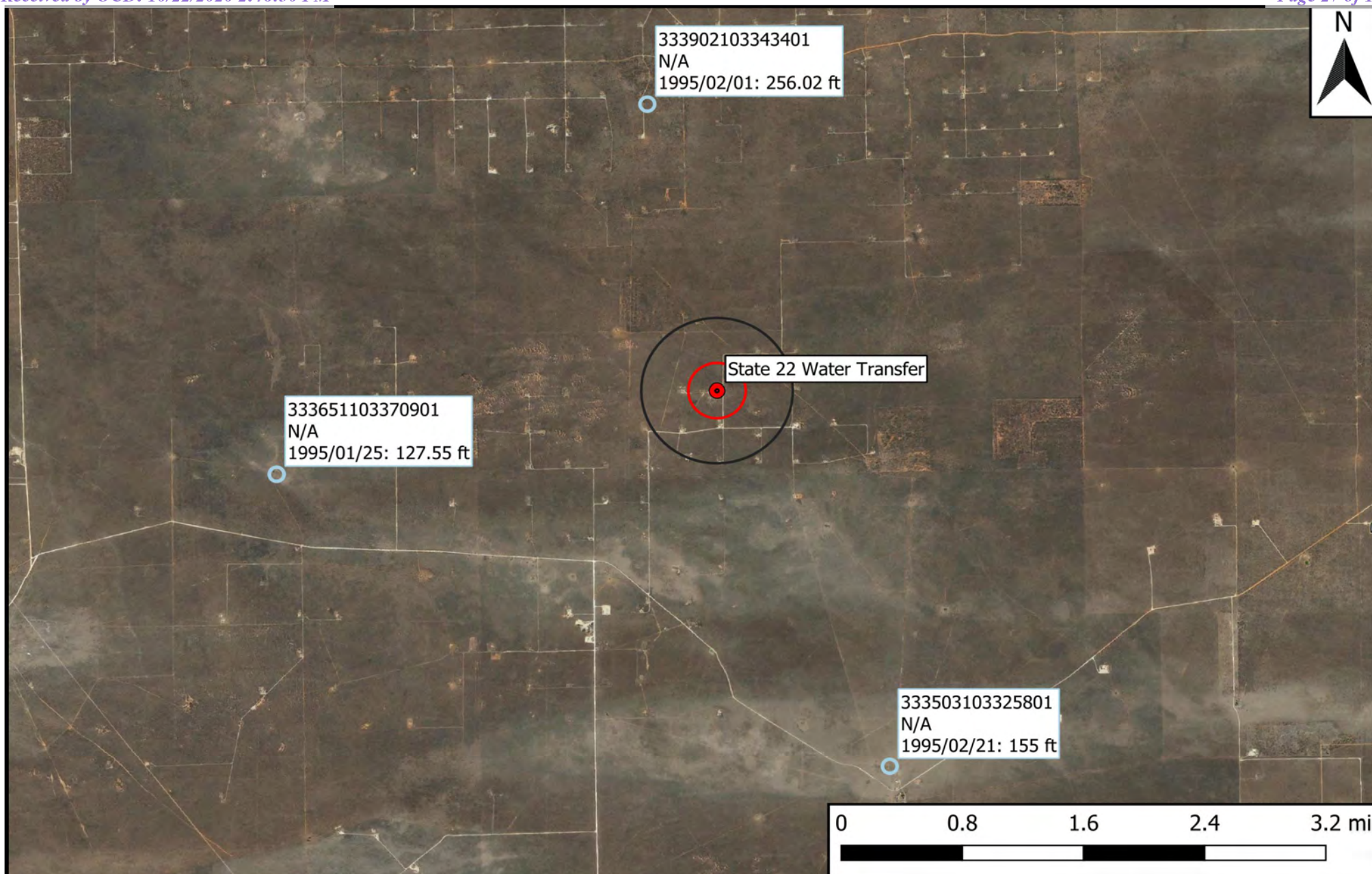
Casing Perforations:	Top	Bottom
	160	220

x

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

6/10/20 9:30 AM

POINT OF DIVERSION SUMMARY



Legend

- Site Location
- Well - USGS
- 0.5 Mi Radius
- 1000 Ft Radius

Figure 5

USGS Well Proximity Map
 Endeavor Energy Resources, LP
 State 22 Water Transfer
 GPS: 33.622009, -103.569111
 Chaves County



Drafted: mag

Checked: jwl

Date: 6/10/20



National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hideNews Bulletins

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 333902103343401

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

USGS 333902103343401 08S.33E.04.114343

Chaves County, New Mexico
Latitude 33°39'02", Longitude 103°34'34" NAD27
Land-surface elevation 4,423 feet above NGVD29
The depth of the well is 453 feet below land surface.

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
1995-02-01		D	256.02			2		S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 333651103370901

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

USGS 333651103370901 08s.32e.13.43421

Chaves County, New Mexico
Latitude 33°36'51", Longitude 103°37'09" NAD27
Land-surface elevation 4,418 feet above NGVD29
The depth of the hole is 180.00 feet below land surface.

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
1995-01-25		D	127.55			2		S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 333503103325801

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

USGS 333503103325801 08S.33E.34.212211

Chaves County, New Mexico
Latitude 33°35'03", Longitude 103°32'58" NAD27
Land-surface elevation 4,355 feet above NGVD29
The depth of the well is 180 feet below land surface.

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
1995-02-21		D	155			0		S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	0	Water level accuracy to nearest foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Appendix B

Field Data and Soil Profile Logs



Initial Release Assessment Form

Project: State 22 Water Transfer Clean Up Level: 20,000 mg/kg Cl-, 2,500 mg/kg TPH
Project Number: 12538 Latitude: 33.622009 Longitude: -103.569111 Date: 6/24/20

Site Diagram

See attached Map for
site diagram.

Notes: Had cattle mess had ongoing difficult. Release at 1'-2', usage

~Length:

~Width:

~Area:

~Depth:

3-4 Representative Pictures of the Affected Area including sample locations?

Necessary Samples Field Screened and on Ice?

Sample and Field Screen Data Entered on Sample Log?

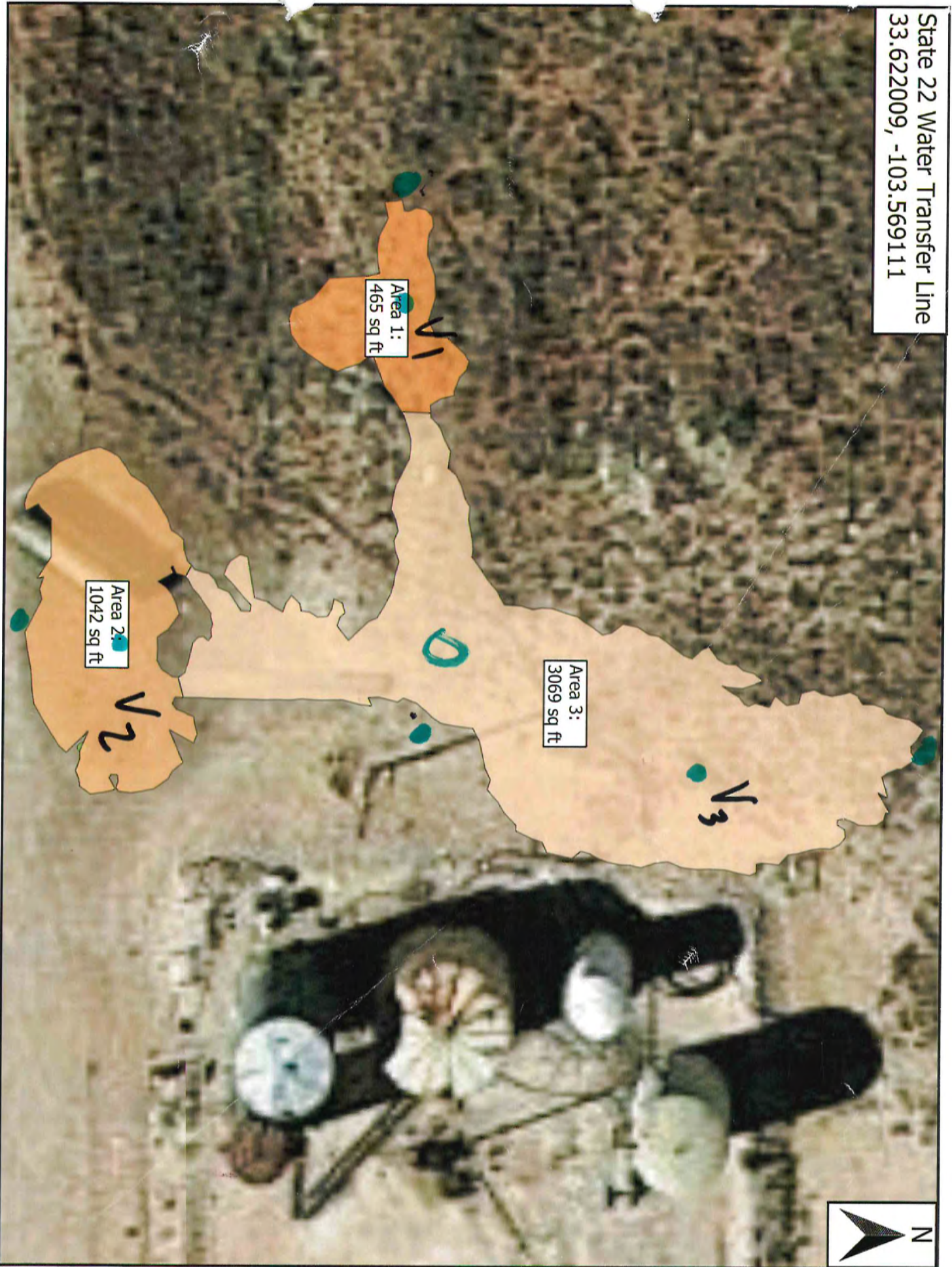
Was horizontal and vertical delineation achieved?

Yes

No



State 22 Water Transfer Line
33.622009, -103.569111



GPS Sample Points, Center of Comp Areas

Sample Log

Date:

6/11/2020

Project: State 22 Water Transfer

Project Number: 12538

Latitude: 33.622009

Longitude: -103.569111

[illegible]

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



Soil Profile

Date: 6/24/20

Project: State 22 Water Transfer
Project Number: 12538 Latitude: 33.622009 Longitude: -103.569111

Depth (ft. bgs)		Description
1	----- 0.5	Brown Reddish Soil
2		caliche
3	----- 2.5	
4		
5		
6		
7		
8		
9		
10		
11		
12		
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14		
15		
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40		

Appendix C

Laboratory Analytical Reports



Certificate of Analysis Summary 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: State 22 Water Transfer

Project Id: 12538
Contact: PM
Project Location: Endeavor

Date Received in Lab: Mon 06.15.2020 09:35
Report Date: 06.22.2020 16:28
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	664362-001	664362-002	664362-003	664362-004	664362-005	664362-006
	<i>Field Id:</i>	SH @ Surface	SH @ 1'	NH @ Surface	NH @ 1'	WHA @ Surface	WHA @ 1'
	<i>Depth:</i>		1- ft		1- ft		1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	06.11.2020 00:00	06.11.2020 00:00	06.11.2020 00:00	06.11.2020 00:00	06.11.2020 00:00	06.11.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	06.19.2020 15:15	06.19.2020 15:15	06.19.2020 15:15	06.19.2020 15:15	06.19.2020 15:15	06.19.2020 15:15
	<i>Analyzed:</i>	06.20.2020 05:09	06.20.2020 05:29	06.20.2020 05:49	06.20.2020 06:10	06.20.2020 06:30	06.20.2020 06:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		0.00203 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00404 0.00404	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		0.00203 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	06.15.2020 11:50	06.15.2020 11:50	06.15.2020 11:50	06.15.2020 11:50	06.15.2020 11:50	06.15.2020 11:50
	<i>Analyzed:</i>	06.15.2020 13:34	06.15.2020 13:53	06.15.2020 13:59	06.15.2020 14:18	06.15.2020 14:25	06.15.2020 14:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		636 5.05	65.1 4.99	7.21 4.99	<5.01 5.01	<4.97 4.97	<4.99 4.99
TPH By SW8015 Mod	<i>Extracted:</i>	06.16.2020 12:15	06.16.2020 12:15	06.16.2020 12:15	06.16.2020 12:15	06.16.2020 12:15	06.16.2020 12:15
	<i>Analyzed:</i>	06.16.2020 17:39	06.16.2020 18:00	06.16.2020 18:22	06.16.2020 18:43	06.16.2020 19:05	06.16.2020 19:26
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		117 49.9	115 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		59.5 49.9	52.6 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total TPH		177 49.9	168 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: State 22 Water Transfer

Project Id: 12538
Contact: PM
Project Location: Endeavor

Date Received in Lab: Mon 06.15.2020 09:35
Report Date: 06.22.2020 16:28
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	664362-007	664362-008	664362-009	664362-010	664362-011	
	<i>Field Id:</i>	V2 @ 1' R	V1 @ 2.5' R	V3 @ 2' R	EHB @ Surface	EHB @ 1'	
	<i>Depth:</i>	1- ft	2.5- ft	2- ft		1- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	06.11.2020 00:00	06.11.2020 00:00	06.11.2020 00:00	06.11.2020 00:00	06.11.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	06.19.2020 15:15	06.19.2020 15:15	06.19.2020 15:15	06.19.2020 15:15	06.19.2020 15:15	
	<i>Analyzed:</i>	06.20.2020 07:11	06.20.2020 07:31	06.20.2020 07:52	06.20.2020 10:23	06.20.2020 10:43	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00201 0.00201	0.00909 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	
Toluene		0.00277 0.00201	0.0944 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	
Ethylbenzene		<0.00201 0.00201	0.168 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	
m,p-Xylenes		<0.00402 0.00402	0.109 0.00402	<0.00402 0.00402	<0.00400 0.00400	<0.00400 0.00400	
o-Xylene		<0.00201 0.00201	0.0538 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	
Total Xylenes		<0.00201 0.00201	0.163 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	
Total BTEX		0.00277 0.00201	0.434 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	
Chloride by EPA 300	<i>Extracted:</i>	06.15.2020 11:50	06.15.2020 11:50	06.15.2020 11:50	06.15.2020 11:50	06.15.2020 15:00	
	<i>Analyzed:</i>	06.15.2020 14:37	06.15.2020 14:44	06.15.2020 14:50	06.15.2020 14:56	06.15.2020 19:38	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		14700 99.0	1060 4.96	13300 101	47.9 5.02	35.6 4.96	
TPH By SW8015 Mod	<i>Extracted:</i>	06.16.2020 12:15	06.16.2020 12:15	06.16.2020 12:15	06.16.2020 12:15	06.16.2020 12:00	
	<i>Analyzed:</i>	06.16.2020 19:48	06.16.2020 20:09	06.16.2020 20:30	06.16.2020 20:52	06.17.2020 03:46	
	<i>Units/RL:</i>	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	<49.9 49.9	<50.0 50.0	<49.8 49.8	
Diesel Range Organics (DRO)		<49.8 49.8	274 50.0	<49.9 49.9	<50.0 50.0	57.9 49.8	
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	
Total TPH		<49.8 49.8	274 50.0	<49.9 49.9	<50.0 50.0	57.9 49.8	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 664362

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

State 22 Water Transfer

12538

06.22.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



06.22.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **664362**

State 22 Water Transfer

Project Address: Endeavor

PM :

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 XENCO Report Number(s) 664362. 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 XENCO Laboratories. 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. 664362 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 XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 664362****Etech Environmental & Safety Solution, Inc, Midland, TX**

State 22 Water Transfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SH @ Surface	S	06.11.2020 00:00		664362-001
SH @ 1'	S	06.11.2020 00:00	1 ft	664362-002
NH @ Surface	S	06.11.2020 00:00		664362-003
NH @ 1'	S	06.11.2020 00:00	1 ft	664362-004
WHA @ Surface	S	06.11.2020 00:00		664362-005
WHA @ 1'	S	06.11.2020 00:00	1 ft	664362-006
V2 @ 1' R	S	06.11.2020 00:00	1 ft	664362-007
V1 @ 2.5' R	S	06.11.2020 00:00	2.5 ft	664362-008
V3 @ 2' R	S	06.11.2020 00:00	2 ft	664362-009
EHB @ Surface	S	06.11.2020 00:00		664362-010
EHB @ 1'	S	06.11.2020 00:00	1 ft	664362-011

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: State 22 Water Transfer**

Project ID: 12538
Work Order Number(s): 664362

Report Date: 06.22.2020
Date Received: 06.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3129609 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7705919-1-BKS, 7705919-1-BLK, 7705919-1-BSD, 664211-018 S, 664211-018 SD, 664362-006, 664362-007, 664362-008, 664362-009, 664362-010, 664362-005, 664362-004, 664362-011, 664362-002, 664362-001, 664362-003.

The ending CCV was bias high for Benzene, ethylbenzene, m,p-Xylenes, and o-Xylene. All samples reported did not take hits for those analytes, therefore data was accepted.



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **SH @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-001

Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	636	5.05	mg/kg	06.15.2020 13:34		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.16.2020 17:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	117	49.9	mg/kg	06.16.2020 17:39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	59.5	49.9	mg/kg	06.16.2020 17:39		1
Total TPH	PHC635	177	49.9	mg/kg	06.16.2020 17:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	06.16.2020 17:39	
o-Terphenyl	84-15-1	97	%	70-130	06.16.2020 17:39	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **SH @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-001

Date Collected: 06.11.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
Toluene	108-88-3	0.00203	0.00200	mg/kg	06.20.2020 05:09		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.20.2020 05:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
Total BTEX		0.00203	0.00200	mg/kg	06.20.2020 05:09		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	147	%	70-130	06.20.2020 05:09	**	
1,4-Difluorobenzene	540-36-3	81	%	70-130	06.20.2020 05:09		



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **SH @ 1'** Matrix: Soil Date Received: 06.15.2020 09:35
 Lab Sample Id: 664362-002 Date Collected: 06.11.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 06.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	65.1	4.99	mg/kg	06.15.2020 13:53		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.16.2020 12:15 Basis: Wet Weight
 Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 18:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	115	50.0	mg/kg	06.16.2020 18:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	52.6	50.0	mg/kg	06.16.2020 18:00		1
Total TPH	PHC635	168	50.0	mg/kg	06.16.2020 18:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	06.16.2020 18:00	
o-Terphenyl	84-15-1	105	%	70-130	06.16.2020 18:00	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **SH @ 1'**
Lab Sample Id: 664362-002

Matrix: Soil
Date Collected: 06.11.2020 00:00

Date Received: 06.15.2020 09:35
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 05:29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	154	%	70-130	06.20.2020 05:29	**	
1,4-Difluorobenzene	540-36-3	83	%	70-130	06.20.2020 05:29		



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **NH @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-003

Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.21	4.99	mg/kg	06.15.2020 13:59		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	06.16.2020 18:22	
o-Terphenyl	84-15-1	94	%	70-130	06.16.2020 18:22	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **NH @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-003

Date Collected: 06.11.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.20.2020 05:49	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.20.2020 05:49		
4-Bromofluorobenzene	460-00-4	159	%	70-130	06.20.2020 05:49	**	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **NH @ 1'** Matrix: Soil Date Received: 06.15.2020 09:35
 Lab Sample Id: 664362-004 Date Collected: 06.11.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 06.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	06.15.2020 14:18	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.16.2020 12:15 Basis: Wet Weight
 Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	06.16.2020 18:43	
o-Terphenyl	84-15-1	101	%	70-130	06.16.2020 18:43	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **NH @ 1'**
 Lab Sample Id: 664362-004

Matrix: Soil
 Date Collected: 06.11.2020 00:00

Date Received: 06.15.2020 09:35
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.20.2020 06:10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	82	%	70-130	06.20.2020 06:10		
4-Bromofluorobenzene	460-00-4	173	%	70-130	06.20.2020 06:10	**	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **WHA @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-005

Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	06.15.2020 14:25	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	06.16.2020 19:05	
o-Terphenyl	84-15-1	99	%	70-130	06.16.2020 19:05	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **WHA @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-005

Date Collected: 06.11.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.20.2020 06:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.20.2020 06:30		
4-Bromofluorobenzene	460-00-4	171	%	70-130	06.20.2020 06:30	**	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **WHA @ 1'**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-006

Date Collected: 06.11.2020 00:00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	06.15.2020 14:31	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	06.16.2020 19:26	
o-Terphenyl	84-15-1	100	%	70-130	06.16.2020 19:26	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **WHA @ 1'**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-006

Date Collected: 06.11.2020 00:00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.20.2020 06:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	170	%	70-130	06.20.2020 06:51	**	
1,4-Difluorobenzene	540-36-3	83	%	70-130	06.20.2020 06:51		



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: V2 @ 1' R

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-007

Date Collected: 06.11.2020 00:00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14700	99.0	mg/kg	06.15.2020 14:37		20

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	06.16.2020 19:48	
o-Terphenyl	84-15-1	99	%	70-130	06.16.2020 19:48	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **V2 @ 1' R**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-007

Date Collected: 06.11.2020 00:00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
Toluene	108-88-3	0.00277	0.00201	mg/kg	06.20.2020 07:11		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 07:11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
Total BTEX		0.00277	0.00201	mg/kg	06.20.2020 07:11		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	162	%	70-130	06.20.2020 07:11	**	
1,4-Difluorobenzene	540-36-3	81	%	70-130	06.20.2020 07:11		



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: V1 @ 2.5' R

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-008

Date Collected: 06.11.2020 00:00

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1060	4.96	mg/kg	06.15.2020 14:44		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 20:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	274	50.0	mg/kg	06.16.2020 20:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 20:09	U	1
Total TPH	PHC635	274	50.0	mg/kg	06.16.2020 20:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	06.16.2020 20:09	
o-Terphenyl	84-15-1	106	%	70-130	06.16.2020 20:09	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **V1 @ 2.5' R**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-008

Date Collected: 06.11.2020 00:00

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00909	0.00201	mg/kg	06.20.2020 07:31		1
Toluene	108-88-3	0.0944	0.00201	mg/kg	06.20.2020 07:31		1
Ethylbenzene	100-41-4	0.168	0.00201	mg/kg	06.20.2020 07:31		1
m,p-Xylenes	179601-23-1	0.109	0.00402	mg/kg	06.20.2020 07:31		1
o-Xylene	95-47-6	0.0538	0.00201	mg/kg	06.20.2020 07:31		1
Total Xylenes	1330-20-7	0.163	0.00201	mg/kg	06.20.2020 07:31		1
Total BTEX		0.434	0.00201	mg/kg	06.20.2020 07:31		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	70-130	06.20.2020 07:31		
4-Bromofluorobenzene	460-00-4	191	%	70-130	06.20.2020 07:31	**	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: V3 @ 2' R

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-009

Date Collected: 06.11.2020 00:00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13300	101	mg/kg	06.15.2020 14:50		20

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	06.16.2020 20:30	
o-Terphenyl	84-15-1	102	%	70-130	06.16.2020 20:30	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: V3 @ 2' R

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-009

Date Collected: 06.11.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 07:52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	76	%	70-130	06.20.2020 07:52		
4-Bromofluorobenzene	460-00-4	157	%	70-130	06.20.2020 07:52	**	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **EHB @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-010

Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 11:50

Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	47.9	5.02	mg/kg	06.15.2020 14:56		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:15

Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	06.16.2020 20:52	
o-Terphenyl	84-15-1	100	%	70-130	06.16.2020 20:52	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **EHB @ Surface**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-010

Date Collected: 06.11.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 10:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	161	%	70-130	06.20.2020 10:23	**	
1,4-Difluorobenzene	540-36-3	80	%	70-130	06.20.2020 10:23		



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **EHB @ 1'**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-011

Date Collected: 06.11.2020 00:00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.15.2020 15:00

Basis: Wet Weight

Seq Number: 3129048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.6	4.96	mg/kg	06.15.2020 19:38		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.16.2020 12:00

Basis: Wet Weight

Seq Number: 3129214

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.17.2020 03:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	57.9	49.8	mg/kg	06.17.2020 03:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.17.2020 03:46	U	1
Total TPH	PHC635	57.9	49.8	mg/kg	06.17.2020 03:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	06.17.2020 03:46	
o-Terphenyl	84-15-1	117	%	70-130	06.17.2020 03:46	



Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **EHB @ 1'**

Matrix: Soil

Date Received: 06.15.2020 09:35

Lab Sample Id: 664362-011

Date Collected: 06.11.2020 00:00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.19.2020 15:15

Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 10:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	162	%	70-130	06.20.2020 10:43	**	
1,4-Difluorobenzene	540-36-3	79	%	70-130	06.20.2020 10:43		



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



Etech Environmental & Safety Solution, Inc

State 22 Water Transfer

Analytical Method: Chloride by EPA 300

Seq Number: 3129045

MB Sample Id: 7705455-1-BLK

Matrix: Solid

LCS Sample Id: 7705455-1-BKS

Prep Method: E300P

Date Prep: 06.15.2020

LCSD Sample Id: 7705455-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	257	103	258	103	90-110	0	20	mg/kg	06.15.2020 11:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3129048

MB Sample Id: 7705489-1-BLK

Matrix: Solid

LCS Sample Id: 7705489-1-BKS

Prep Method: E300P

Date Prep: 06.15.2020

LCSD Sample Id: 7705489-1-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	259	104	260	104	90-110	0	20	mg/kg	06.15.2020 16:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3129045

Parent Sample Id: 664339-104

Matrix: Soil

MS Sample Id: 664339-104 S

Prep Method: E300P

Date Prep: 06.15.2020

MSD Sample Id: 664339-104 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.95	248	278	112	275	111	90-110	1	20	mg/kg	06.15.2020 12:14	X

Analytical Method: Chloride by EPA 300

Seq Number: 3129045

Parent Sample Id: 664362-001

Matrix: Soil

MS Sample Id: 664362-001 S

Prep Method: E300P

Date Prep: 06.15.2020

MSD Sample Id: 664362-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	636	253	867	91	867	91	90-110	0	20	mg/kg	06.15.2020 13:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3129048

Parent Sample Id: 664452-004

Matrix: Soil

MS Sample Id: 664452-004 S

Prep Method: E300P

Date Prep: 06.15.2020

MSD Sample Id: 664452-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	178	252	462	113	447	107	90-110	3	20	mg/kg	06.15.2020 16:59	X

Analytical Method: Chloride by EPA 300

Seq Number: 3129048

Parent Sample Id: 664452-008

Matrix: Soil

MS Sample Id: 664452-008 S

Prep Method: E300P

Date Prep: 06.15.2020

MSD Sample Id: 664452-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	258	252	529	108	524	106	90-110	1	20	mg/kg	06.15.2020 18:28	

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

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

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

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



Etech Environmental & Safety Solution, Inc
State 22 Water Transfer

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129214

MB Sample Id: 7705538-1-BLK

Matrix: Solid

LCS Sample Id: 7705538-1-BKS

Prep Method: SW8015P

Date Prep: 06.16.2020

LCSD Sample Id: 7705538-1-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	1050	105	1050	105	70-130	0	20	mg/kg	06.17.2020 01:35	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-130	0	20	mg/kg	06.17.2020 01:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		129		129		70-130	%	06.17.2020 01:35
o-Terphenyl	126		122		126		70-130	%	06.17.2020 01:35

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129216

MB Sample Id: 7705540-1-BLK

Matrix: Solid

LCS Sample Id: 7705540-1-BKS

Prep Method: SW8015P

Date Prep: 06.16.2020

LCSD Sample Id: 7705540-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	866	87	904	90	70-130	4	20	mg/kg	06.16.2020 12:15	
Diesel Range Organics (DRO)	<50.0	1000	947	95	968	97	70-130	2	20	mg/kg	06.16.2020 12:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		102		105		70-130	%	06.16.2020 12:15
o-Terphenyl	98		101		106		70-130	%	06.16.2020 12:15

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129214

Matrix: Solid

MB Sample Id: 7705538-1-BLK

Prep Method: SW8015P

Date Prep: 06.16.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.17.2020 01:16	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129216

Matrix: Solid

MB Sample Id: 7705540-1-BLK

Prep Method: SW8015P

Date Prep: 06.16.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.16.2020 11:54	

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

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

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

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



Etech Environmental & Safety Solution, Inc

State 22 Water Transfer

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129214

Parent Sample Id: 664364-021

Matrix: Soil

MS Sample Id: 664364-021 S

Prep Method: SW8015P

Date Prep: 06.16.2020

MSD Sample Id: 664364-021 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	1080	108	1100	110	70-130	2	20	mg/kg	06.17.2020 02:31	
Diesel Range Organics (DRO)	<49.9	997	1100	110	1110	111	70-130	1	20	mg/kg	06.17.2020 02:31	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		130		70-130	%	06.17.2020 02:31
o-Terphenyl	125		124		70-130	%	06.17.2020 02:31

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129216

Parent Sample Id: 664339-101

Matrix: Soil

MS Sample Id: 664339-101 S

Prep Method: SW8015P

Date Prep: 06.16.2020

MSD Sample Id: 664339-101 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	861	86	848	85	70-130	2	20	mg/kg	06.16.2020 13:20	
Diesel Range Organics (DRO)	<49.9	997	945	95	927	93	70-130	2	20	mg/kg	06.16.2020 13:20	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		101		70-130	%	06.16.2020 13:20
o-Terphenyl	100		98		70-130	%	06.16.2020 13:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3129609

MB Sample Id: 7705919-1-BLK

Matrix: Solid

LCS Sample Id: 7705919-1-BKS

Prep Method: SW5035A

Date Prep: 06.19.2020

LCSD Sample Id: 7705919-1-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	0.110	110	0.113	113	70-130	3	35	mg/kg	06.20.2020 02:28	
Toluene	<0.00200	0.100	0.104	104	0.107	107	70-130	3	35	mg/kg	06.20.2020 02:28	
Ethylbenzene	<0.00200	0.100	0.106	106	0.110	110	70-130	4	35	mg/kg	06.20.2020 02:28	
m,p-Xylenes	<0.00400	0.200	0.217	109	0.225	113	70-130	4	35	mg/kg	06.20.2020 02:28	
o-Xylene	<0.00200	0.100	0.109	109	0.113	113	70-130	4	35	mg/kg	06.20.2020 02:28	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	81		84		88		70-130	%	06.20.2020 02:28
4-Bromofluorobenzene	156	**	147	**	155	**	70-130	%	06.20.2020 02:28

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

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

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

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



Etech Environmental & Safety Solution, Inc
State 22 Water Transfer

Analytical Method: BTEX by EPA 8021B

Seq Number: 3129609

Parent Sample Id: 664211-018

Matrix: Soil

MS Sample Id: 664211-018 S

Prep Method: SW5035A

Date Prep: 06.19.2020

MSD Sample Id: 664211-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0947	95	0.0913	91	70-130	4	35	mg/kg	06.20.2020 03:08	
Toluene	<0.00199	0.0996	0.0842	85	0.0815	82	70-130	3	35	mg/kg	06.20.2020 03:08	
Ethylbenzene	<0.00199	0.0996	0.0879	88	0.0851	85	70-130	3	35	mg/kg	06.20.2020 03:08	
m,p-Xylenes	<0.00398	0.199	0.174	87	0.169	85	70-130	3	35	mg/kg	06.20.2020 03:08	
o-Xylene	<0.00199	0.0996	0.0912	92	0.0889	89	70-130	3	35	mg/kg	06.20.2020 03:08	

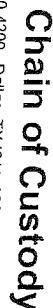
Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		89		70-130	%	06.20.2020 03:08
4-Bromofluorobenzene	155	**	156	**	70-130	%	06.20.2020 03:08

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

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

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

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



Work Order No: 12538

664367

ANALYSIS REQUEST

Sample Comments

total	200.7 / 6010	200.8 / 6020:
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8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	V	Zn
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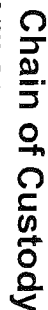
1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) _____

Date: _____

Revised Date 10/4/19 Rev. 2019. -



Work Order No: 12538

www.xenco.com Page 2 of 2

ANALYSIS REQUEST										Preservative Codes																											
Project Name:	State of Water Master							Turn Around																													
Project Number:	12538							Routine:		☒																											
Project Location	Endeavor							Rush:		☐																											
Sampler's Name:	Matt Grieco							Due Date:																													
PO #:																																					
SAMPLE RECEIPT																																					
Temperature (°C):	4.2/3.8		Temp Blank:		Yes ☐ No ☒		Wet Ice:		Yes ☐ No ☒																												
Received Inact:	☒ Yes ☐ No				Thermometer ID		128																														
Cooler Custody Seals:	☒ Yes ☐ No		Correction Factor:		128																																
Sample Custody Seals:	☒ Yes ☐ No		Total Containers:		10.4																																
Number of Containers/Preservative																																					
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Total 200.7 / 6010		200.8 6020:			
Circle Method(s) and Metal(s) to be analyzed					
8RCRA	13PPM	Texas 11	Al	Sb	As
			Ba	Be	B
			Cd	Ca	Cr
			Co	Cu	Fe
			Pb	Mg	Mn
			Mo	Ni	K
			Se	Ag	SiO ₂
			Na	Sr	Ti
			Sn	U	V
			Zn		
Circle Method(s) and Metal(s) to be analyzed		1631 / 245.1 / 7470 / 7471 : Hg			

Revised Date 10/14/19 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 06.12.2020 04.20.49 PM

Work Order #: 664362

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)?	3.8	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	BTEX RECEIVED 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: 06.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.15.2020



Xenco

Certificate of Analysis Summary 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: State 22 Water Transfer Line

Project Id: 12538
Contact: PM
Project Location: Rural Chavez

Date Received in Lab: Fri 06.26.2020 10:40
Report Date: 07.07.2020 12:24
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	665647-001	665647-002	665647-003	665647-004	665647-005	
	<i>Field Id:</i>	V1 @ 3'	V1 @ 4'	V2 @ 2'	V3 @ 3'	V3 @ 4'	
	<i>Depth:</i>	3- ft	4- ft	2- ft	3- ft	4- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	06.24.2020 00:00	06.24.2020 00:00	06.24.2020 00:00	06.24.2020 00:00	06.24.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	06.29.2020 15:30	06.29.2020 15:30	06.29.2020 15:30	06.29.2020 15:30	06.29.2020 15:30	
	<i>Analyzed:</i>	06.30.2020 02:33	06.30.2020 02:53	06.30.2020 03:14	06.30.2020 04:36	06.30.2020 13:29	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398	<0.00402 0.00402	<0.00402 0.00402	
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	
Chloride by EPA 300	<i>Extracted:</i>	06.26.2020 16:40	06.26.2020 16:40	06.26.2020 16:40	06.26.2020 16:40	06.26.2020 16:40	
	<i>Analyzed:</i>	06.26.2020 18:38	06.26.2020 18:53	06.26.2020 18:59	06.26.2020 19:04	06.26.2020 19:09	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		4970 25.0	1600 25.0	461 5.00	1280 25.0	514 5.00	
TPH By SW8015 Mod	<i>Extracted:</i>	06.26.2020 16:30	06.26.2020 16:30	06.26.2020 16:30	06.26.2020 16:30	06.26.2020 16:30	
	<i>Analyzed:</i>	06.26.2020 23:59	06.27.2020 00:20	06.27.2020 00:41	06.27.2020 01:24	06.27.2020 09:38	
	<i>Units/RL:</i>	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	<50.0 50.0	
Diesel Range Organics (DRO)		<49.8 49.8	449 50.0	<50.0 50.0	151 49.9	92.5 50.0	
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	50.7 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	
Total TPH		<49.8 49.8	500 50.0	<50.0 50.0	151 49.9	92.5 50.0	

BRL - Below Reporting Limit

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



Xenco

Analytical Report 665647

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

State 22 Water Transfer Line

12538

07.07.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.07.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **665647**

State 22 Water Transfer Line

Project Address: Rural Chavez

PM :

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) 665647. 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. 665647 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Holly Taylor".

Holly Taylor
Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 665647****Etech Environmental & Safety Solution, Inc, Midland, TX**

State 22 Water Transfer Line

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
V1 @ 3'	S	06.24.2020 00:00	3 ft	665647-001
V1 @ 4'	S	06.24.2020 00:00	4 ft	665647-002
V2 @ 2'	S	06.24.2020 00:00	2 ft	665647-003
V3 @ 3'	S	06.24.2020 00:00	3 ft	665647-004
V3 @ 4'	S	06.24.2020 00:00	4 ft	665647-005



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: State 22 Water Transfer Line

Project ID: 12538
Work Order Number(s): 665647

Report Date: 07.07.2020
Date Received: 06.26.2020

Sample receipt non conformances and comments:

7/7/2020 1.001 Revised to correct sample IDs for 004 and 005 per Matthew Greico (email). HT

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: V1 @ 3' Matrix: Soil Date Received: 06.26.2020 10:40
 Lab Sample Id: 665647-001 Date Collected: 06.24.2020 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 06.26.2020 16:40 Basis: Wet Weight
 Seq Number: 3130312

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4970	25.0	mg/kg	06.26.2020 18:38		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.26.2020 16:30 Basis: Wet Weight
 Seq Number: 3130173

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	06.26.2020 23:59	
o-Terphenyl	84-15-1	94	%	70-130	06.26.2020 23:59	



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: V1 @ 3'
Lab Sample Id: 665647-001

Matrix: Soil
Date Collected: 06.24.2020 00:00

Date Received: 06.26.2020 10:40
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.29.2020 15:30

Basis: Wet Weight

Seq Number: 3130369

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.30.2020 02:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.30.2020 02:33		
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.30.2020 02:33		



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: **V1 @ 4'** Matrix: Soil Date Received: 06.26.2020 10:40
 Lab Sample Id: 665647-002 Date Collected: 06.24.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 06.26.2020 16:40 Basis: Wet Weight
 Seq Number: 3130312

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1600	25.0	mg/kg	06.26.2020 18:53		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.26.2020 16:30 Basis: Wet Weight
 Seq Number: 3130173

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.27.2020 00:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	449	50.0	mg/kg	06.27.2020 00:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	50.7	50.0	mg/kg	06.27.2020 00:20		1
Total TPH	PHC635	500	50.0	mg/kg	06.27.2020 00:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	06.27.2020 00:20	
o-Terphenyl	84-15-1	95	%	70-130	06.27.2020 00:20	



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: V1 @ 4'
Lab Sample Id: 665647-002

Matrix: Soil
Date Collected: 06.24.2020 00:00

Date Received: 06.26.2020 10:40
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.29.2020 15:30

Basis: Wet Weight

Seq Number: 3130369

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.30.2020 02:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.30.2020 02:53		
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.30.2020 02:53		



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: V2 @ 2'
Lab Sample Id: 665647-003

Matrix: Soil
Date Collected: 06.24.2020 00:00

Date Received: 06.26.2020 10:40
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3130312

Date Prep: 06.26.2020 16:40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	461	5.00	mg/kg	06.26.2020 18:59		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3130173

Date Prep: 06.26.2020 16:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	06.27.2020 00:41	
o-Terphenyl	84-15-1	97	%	70-130	06.27.2020 00:41	



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: V2 @ 2'
Lab Sample Id: 665647-003

Matrix: Soil
Date Collected: 06.24.2020 00:00

Date Received: 06.26.2020 10:40
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.29.2020 15:30

Basis: Wet Weight

Seq Number: 3130369

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.30.2020 03:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	06.30.2020 03:14		
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.30.2020 03:14		



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: **V3 @ 3'** Matrix: Soil Date Received: 06.26.2020 10:40
 Lab Sample Id: 665647-004 Date Collected: 06.24.2020 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 06.26.2020 16:40 Basis: Wet Weight
 Seq Number: 3130312

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1280	25.0	mg/kg	06.26.2020 19:04		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.26.2020 16:30 Basis: Wet Weight
 Seq Number: 3130173

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.27.2020 01:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	151	49.9	mg/kg	06.27.2020 01:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.27.2020 01:24	U	1
Total TPH	PHC635	151	49.9	mg/kg	06.27.2020 01:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	06.27.2020 01:24	
o-Terphenyl	84-15-1	90	%	70-130	06.27.2020 01:24	



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: V3 @ 3'
Lab Sample Id: 665647-004

Matrix: Soil
Date Collected: 06.24.2020 00:00

Date Received: 06.26.2020 10:40
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.29.2020 15:30

Basis: Wet Weight

Seq Number: 3130369

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.30.2020 04:36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	06.30.2020 04:36		
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.30.2020 04:36		



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: **V3 @ 4'** Matrix: Soil Date Received: 06.26.2020 10:40
 Lab Sample Id: 665647-005 Date Collected: 06.24.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 06.26.2020 16:40 Basis: Wet Weight
 Seq Number: 3130312

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	514	5.00	mg/kg	06.26.2020 19:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.26.2020 16:30 Basis: Wet Weight
 Seq Number: 3130173

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.27.2020 09:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	92.5	50.0	mg/kg	06.27.2020 09:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.27.2020 09:38	U	1
Total TPH	PHC635	92.5	50.0	mg/kg	06.27.2020 09:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	06.27.2020 09:38	
o-Terphenyl	84-15-1	91	%	70-130	06.27.2020 09:38	



Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id: V3 @ 4'
Lab Sample Id: 665647-005

Matrix: Soil
Date Collected: 06.24.2020 00:00

Date Received: 06.26.2020 10:40
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.29.2020 15:30

Basis: Wet Weight

Seq Number: 3130369

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.30.2020 13:29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	06.30.2020 13:29		
4-Bromofluorobenzene	460-00-4	94	%	70-130	06.30.2020 13:29		

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

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer Line

Analytical Method: Chloride by EPA 300

Seq Number: 3130312

MB Sample Id: 7706300-1-BLK

Matrix: Solid

LCS Sample Id: 7706300-1-BKS

Prep Method: E300P

Date Prep: 06.26.2020

LCSD Sample Id: 7706300-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	249	100	271	108	90-110	8	20	mg/kg	06.26.2020 16:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3130312

Parent Sample Id: 665657-004

Matrix: Soil

MS Sample Id: 665657-004 S

Prep Method: E300P

Date Prep: 06.26.2020

MSD Sample Id: 665657-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	343	250	587	98	590	99	90-110	1	20	mg/kg	06.26.2020 18:23	

Analytical Method: Chloride by EPA 300

Seq Number: 3130312

Parent Sample Id: 665695-005

Matrix: Soil

MS Sample Id: 665695-005 S

Prep Method: E300P

Date Prep: 06.26.2020

MSD Sample Id: 665695-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1050	250	1250	80	1230	72	90-110	2	20	mg/kg	06.26.2020 17:12	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3130173

MB Sample Id: 7706305-1-BLK

Matrix: Solid

LCS Sample Id: 7706305-1-BKS

Prep Method: SW8015P

Date Prep: 06.26.2020

LCSD Sample Id: 7706305-1-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	945	95	70-130	3	20	mg/kg	06.26.2020 20:04	
Diesel Range Organics (DRO)	<50.0	1000	978	98	985	99	70-130	1	20	mg/kg	06.26.2020 20:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		94		93		70-130	%	06.26.2020 20:04
o-Terphenyl	90		89		87		70-130	%	06.26.2020 20:04

Analytical Method: TPH By SW8015 Mod

Seq Number: 3130173

Matrix: Solid

MB Sample Id: 7706305-1-BLK

Prep Method: SW8015P

Date Prep: 06.26.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.26.2020 19:43	

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

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

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

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

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer Line

Analytical Method: TPH By SW8015 Mod

Seq Number: 3130173

Parent Sample Id: 665645-001

Matrix: Soil

MS Sample Id: 665645-001 S

Prep Method: SW8015P

Date Prep: 06.26.2020

MSD Sample Id: 665645-001 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	846	85	837	84	70-130	1	20	mg/kg	06.26.2020 21:09	
Diesel Range Organics (DRO)	<49.9	998	863	86	873	88	70-130	1	20	mg/kg	06.26.2020 21:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		98		70-130	%	06.26.2020 21:09
o-Terphenyl	90		91		70-130	%	06.26.2020 21:09

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130369

MB Sample Id: 7706406-1-BLK

Matrix: Solid

LCS Sample Id: 7706406-1-BKS

Prep Method: SW5035A

Date Prep: 06.29.2020

LCSD Sample Id: 7706406-1-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	0.130	130	0.126	126	70-130	3	35	mg/kg	06.29.2020 22:06	
Toluene	<0.00200	0.100	0.106	106	0.105	105	70-130	1	35	mg/kg	06.29.2020 22:06	
Ethylbenzene	<0.00200	0.100	0.0970	97	0.0961	96	70-130	1	35	mg/kg	06.29.2020 22:06	
m,p-Xylenes	<0.00400	0.200	0.180	90	0.180	90	70-130	0	35	mg/kg	06.29.2020 22:06	
o-Xylene	<0.00200	0.100	0.0913	91	0.0912	91	70-130	0	35	mg/kg	06.29.2020 22:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		103		102		70-130	%	06.29.2020 22:06
4-Bromofluorobenzene	93		87		86		70-130	%	06.29.2020 22:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130369

Parent Sample Id: 665645-001

Matrix: Soil

MS Sample Id: 665645-001 S

Prep Method: SW5035A

Date Prep: 06.29.2020

MSD Sample Id: 665645-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0840	84	0.0841	84	70-130	0	35	mg/kg	06.29.2020 22:47	
Toluene	<0.00200	0.100	0.0715	72	0.0878	88	70-130	20	35	mg/kg	06.29.2020 22:47	
Ethylbenzene	<0.00200	0.100	0.0670	67	0.0798	80	70-130	17	35	mg/kg	06.29.2020 22:47	X
m,p-Xylenes	<0.00400	0.200	0.131	66	0.158	79	70-130	19	35	mg/kg	06.29.2020 22:47	X
o-Xylene	<0.00200	0.100	0.0659	66	0.0792	80	70-130	18	35	mg/kg	06.29.2020 22:47	X

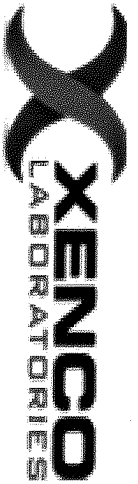
Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		70-130	%	06.29.2020 22:47
4-Bromofluorobenzene	92		100		70-130	%	06.29.2020 22:47

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

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

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

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

1045047

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Project Manager:	Lance Crenshaw	Bill to: (if different):	Tiffany Fawks
Company Name:	Elech Environmental and Safety	Company Name:	Endeavor
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lawton, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@elecheny.com + Client

Program: ☐ PST ☐ PRF ☐ Brownfield ☐ RRD ☐ Superfund State of Project:	
Reporting Level: ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐	Deliverables: EDD ☐ ADAPT ☐ Other: ☐

Project Name:	State 22 Water Transfer Line	Turn Around	☒
Project Number:	12538	Routine:	☒
Project Location:	Rural Chavez	Rush:	☐
Sampler's Name:	Hilda Villa	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
	Temperature (°C):	4.0	Thermometer ID:	1123
	Received intact:	Yes ☒ No ☐	Correction Factor:	-0.4
	Cooler Custody Seals:	Yes ☐ No ☒	Total Containers:	1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST																Preservative Codes		Sample Comments
V1 @ 3'	Soil	6/24/2020		3'	1/NO	X	X	X	X														
V1 @ 4'	Soil	6/24/2020		4'	1/NO	X	X	X	X														
V2 @ 2'	Soil	6/24/2020		2'	1/NO	X	X	X	X														
V3 @ 3'	Soil	6/24/2020		3'	1/NO	X	X	X	X														
V3 @ 4'	Soil	6/24/2020		4'	1/NO	X	X	X	X														

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg

Note: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		06-25-20 3:04 PM			10/22
					1040

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 06.26.2020 10.40.00 AM

Work Order #: 665647

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)?	4.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes TPH 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: 06.26.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.26.2020

Appendix D

Photographic Log

Photographic Log

Photo Number: 1	 Jun 8, 2020 at 10:09:50 AM +33.621968,-103.569012 ±5.00m 237° SE
Photo Direction: Southeast	
Photo Description: Spill area adjacent to road.	

Photo Number: 2	 Jun 8, 2020 at 10:14:18 AM +33.622414,-103.569122 ±5.00m 88° E
Photo Direction: East	
Photo Description: Initial release point facing downhill toward the bulk of the release.	

Photographic Log

Photo Number: 3	 Jun 8, 2020 at 10:12:29 AM +33.622349,-103.569044 ±5.00m 185° S
Photo Direction: South	
Photo Description: Field area affected by release.	

Photo Number: 4	 Jun 8, 2020 at 10:09:55 AM +33.621968,-103.569012 ±5.00m 283° W
Photo Direction: West	
Photo Description: Release area blocked by fiberglass pipe.	

Photographic Log

Photo Number: 5	 Jun 8, 2020 at 10:11:27 AM +33.622155,-103.569063 ±5.00m 212° SE
Photo Direction: Southeast	
Photo Description: Field area affected by release.	

Photo Number: 6	 Jun 8, 2020 at 10:13:29 AM +33.622414,-103.569122 ±5.00m 218° SE
Photo Direction: Southeast	
Photo Description: Runoff down hill from initial release point.	