

Incident ID	nRM2016949793
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>&gt;75</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.*

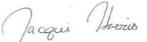
- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the 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.

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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: Jacqui Harris Title: Senior HSE Coordinator

Signature:  Date: 10.20.20

email: jharris2@concho.com Telephone: 575-496-0780

#### **OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nRM2016949793
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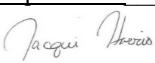
## Closure

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

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

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

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

Printed Name: Jacqui Harris Title: Senior HSE Coordinator  
Signature:   
email: jharris2@concho.com Date: 10.20.20  
Telephone: 575-496-0780

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

## Remediation Summary and Soil Closure Request

### COG Operating, LLC Sopapilla State 1H

Lea County, New Mexico

Unit Letter P, Section 15, Township 23 South, Range 33 East

Latitude 32.298294 North, Longitude 103.554784 West

NMOCD Reference No. nRM2016949793

Prepared By:

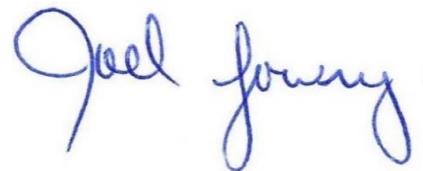
### Etech Environmental & Safety Solutions, Inc.

3100 Plains Highway

Lovington, New Mexico 88260



Matthew Grieco



Joel W. Lowry



Midland • San Antonio • Lubbock • Lovington • Lafayette

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## 1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of COG Operating, LLC, has prepared this Remediation Summary and Soil Closure Request for the Release Site known as the Sopapilla State 1H. Details of the release are summarized below:

### Location of Release Source

Latitude: 32.298294      Longitude: -103.554784

Provided GPS are in WGS84 format.

Site Name:	Sopapilla State 1H	Site Type:	Flowline
Date Release Discovered:	5/30/2020	API # (if applicable):	30-025-40733

Unit Letter	Section	Township	Range	County
P	15	23S	33E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name \_\_\_\_\_)

### Nature and Volume of Release

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 15	Volume Recovered (bbls) 0
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released	Volume/Weight Recovered

#### Cause of Release:

The release was caused internal corrosion and ruptured a fiber-spar water transfer line.

The flow line release was in the pasture with over spray onto the Devon pad (North Thistle 15-10 State Com 5H). A vacuum truck was dispatched to remove all freestanding fluids. Concho will evaluate the site to determine if we may

### 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.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

## 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 and published information. Depth to groundwater information is provided as Appendix A.

	>75'
What is the shallowest depth to groundwater beneath the area affected by the release?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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
>75'	Chloride	EPA 300.0 or SM4500 Cl B	10000 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 REMEDIATION ACTIVITIES SUMMARY

On July 23 and August 27, 2020, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores and/or test trenches were advanced within the release margins in an effort to determine the vertical extent of soil impacts. In addition, hand-augered soil bores and/or test trenches 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, twenty-seven (27) delineation soil samples (NH @ Surf., NH @ 1', WH @ Surf., WH @ 1', EH @ Surf., EH @ 1', SHA @ Surf., SHA @ 1', SP1 @ Surf., SP1 @ 1', SP2 @ Surf., SP2 @ 1', SP3 @ Surf., SP3 @ 2', SP4 @ Surf., SP4 @ 1', SP5 @ Surf., SP5 @ 1', SP6 @ Surf., SP6 @ 1', SP7 @ Surf., SP7 @ 1', SP8 @ Surf., SP8 @ 4', SP8 @ 8', Tent Trench @ 9', and Test Trench @ 11') 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 beyond 4 Ft. BGS and the horizontal extent of affected soil impacted above the NMOCD Closure Criteria was adequately defined.

On September 17, 2020, remediation activities commenced at the Site. In accordance with the NMOCD, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and stockpiled on-site, pending final disposition at an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations and test results suggested BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

On September 21, Etech collected sixteen (16) excavation confirmation soil samples (NW, EW, SW, WW, FL1 @ 1', FL2 @ 1', FL3 @ 1', FL4 @ 1', FL5 @ 1', FL6 @ 1', FL7 @ 1', FL8 @ 1', FL9 @ 1', FL10 @ 1', FL11 @ 1', and FL12 @ 1'). The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On September 23, Etech collected fourteen (14) excavation confirmation soil samples (WSW, ESW, SW10, SSW1, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22). The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On September 24, Etech collected six (6) excavation confirmation soil samples (B23, B24, B25, B26, SW11, SW12b). The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

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

The final dimensions of the excavated area were 230 Ft. in length, 20 to 60 Ft. in width and ranged from 1 to 4 Ft. in depth. During the course or remediation activities approximately 720 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

## **5.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN**

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was 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 free of noxious weeds during the first favorable growing season following closure of the site.

## **6.0 SOIL CLOSURE REQUEST**

Remediation activities were conducted in accordance with applicable NMOCD Regulations. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

Based on laboratory analytical results and field activities conducted to date, Etech recommends COG Operating, LLC provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the Sopapilla State 1H Site.

## **7.0 LIMITATIONS**

Etech Environmental & Safety Solutions, Inc., has prepared this Remediation Summary and Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference 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 COG Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or COG Operating, LLC.

## 8.0 DISTRIBUTION

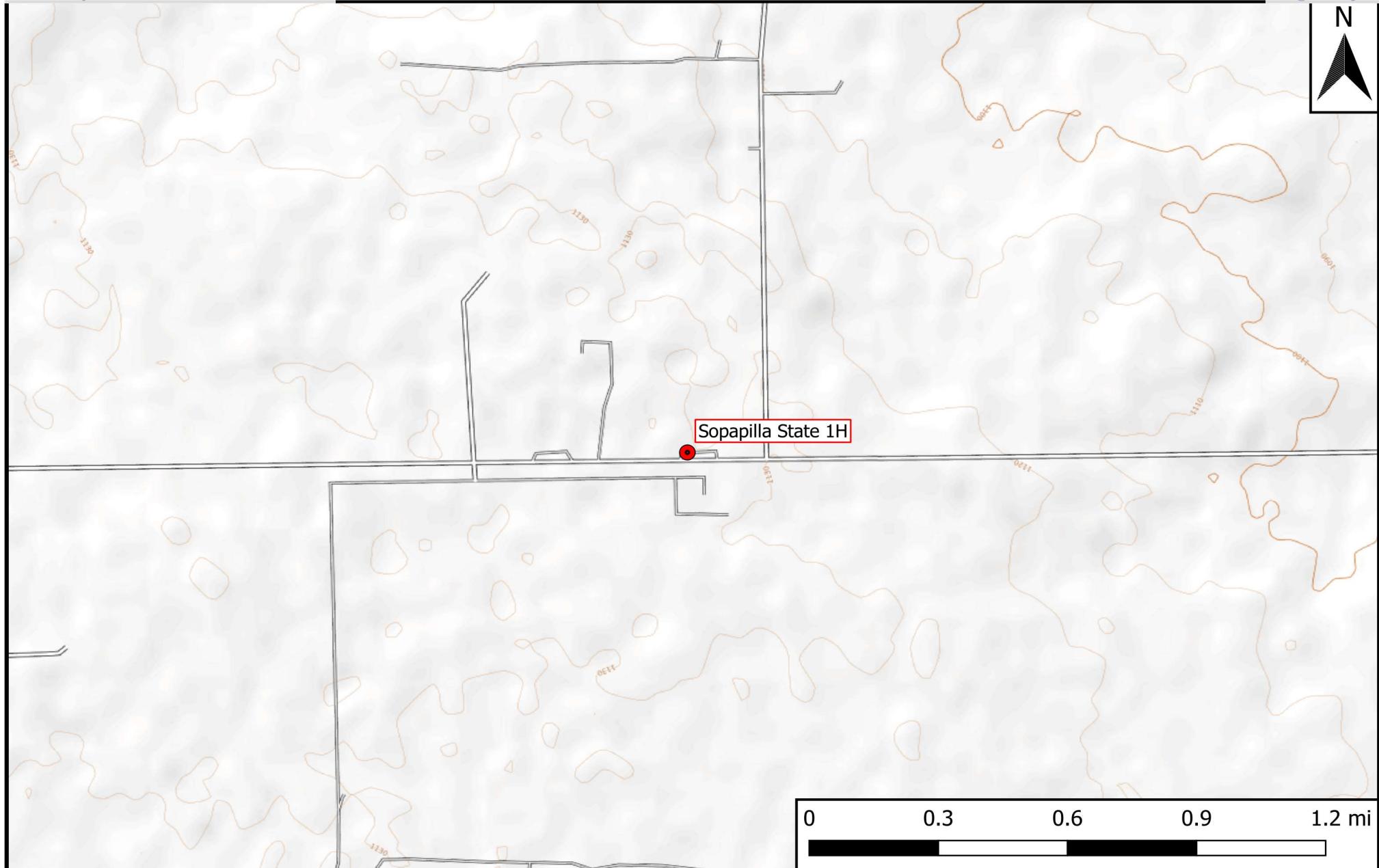
***COG Operating, LLC***  
600 West Illinois Avenue  
Midland, TX 79701

***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

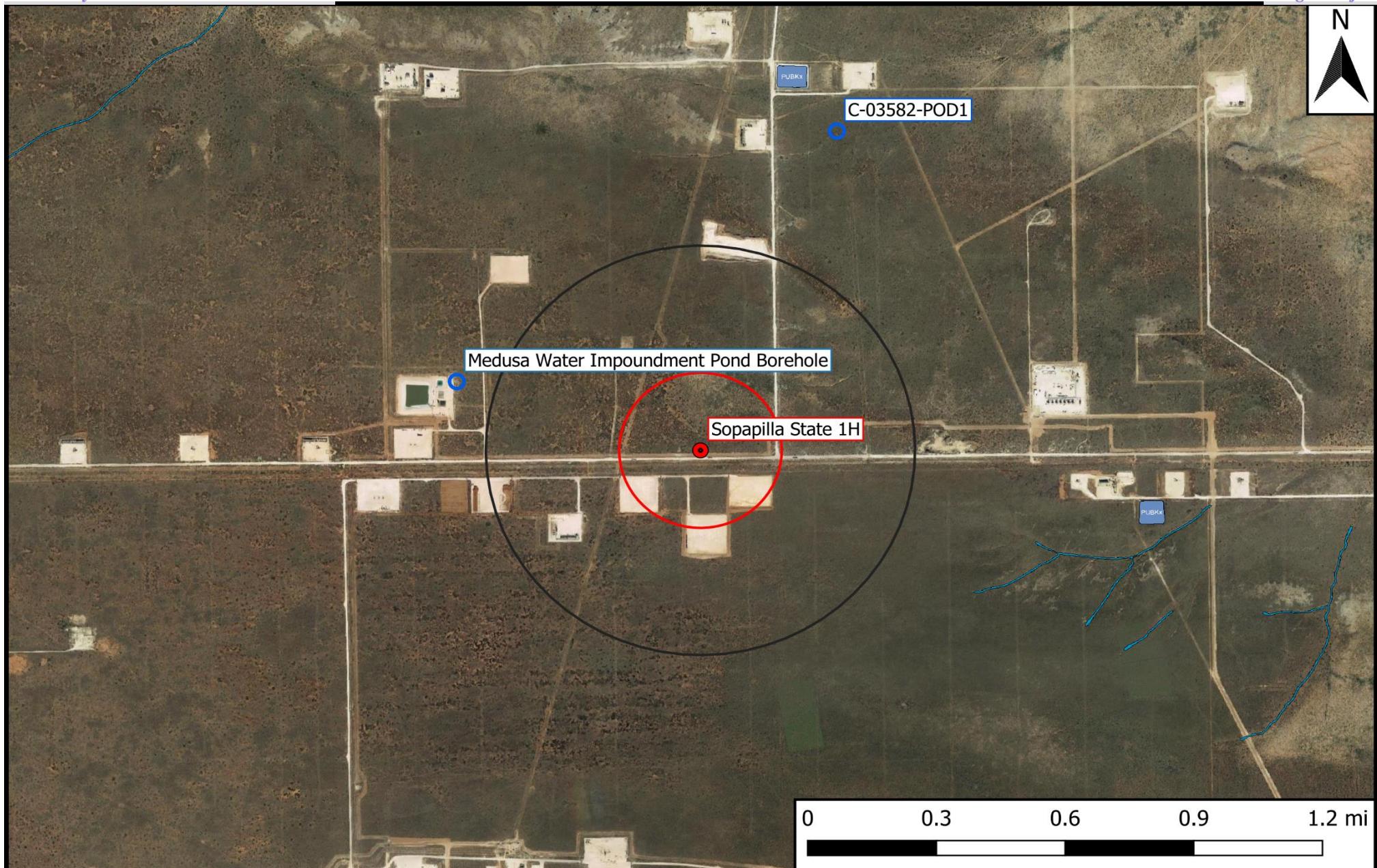
**Figure 1**  
Topographic Map  
COG Operating, LLC  
Sopapilla State 1H  
GPS: 32.298294, -103.554784  
Lea County

**eTECH**  
Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl

Date: 7/22/20

**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  
COG Operating, LLC  
Sopapilla State 1H  
GPS: 32.298294, -103.554784  
Lea County

**eTECH**  
Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 9/30/20

**Figure 3**  
**Site and Sample Location Map**

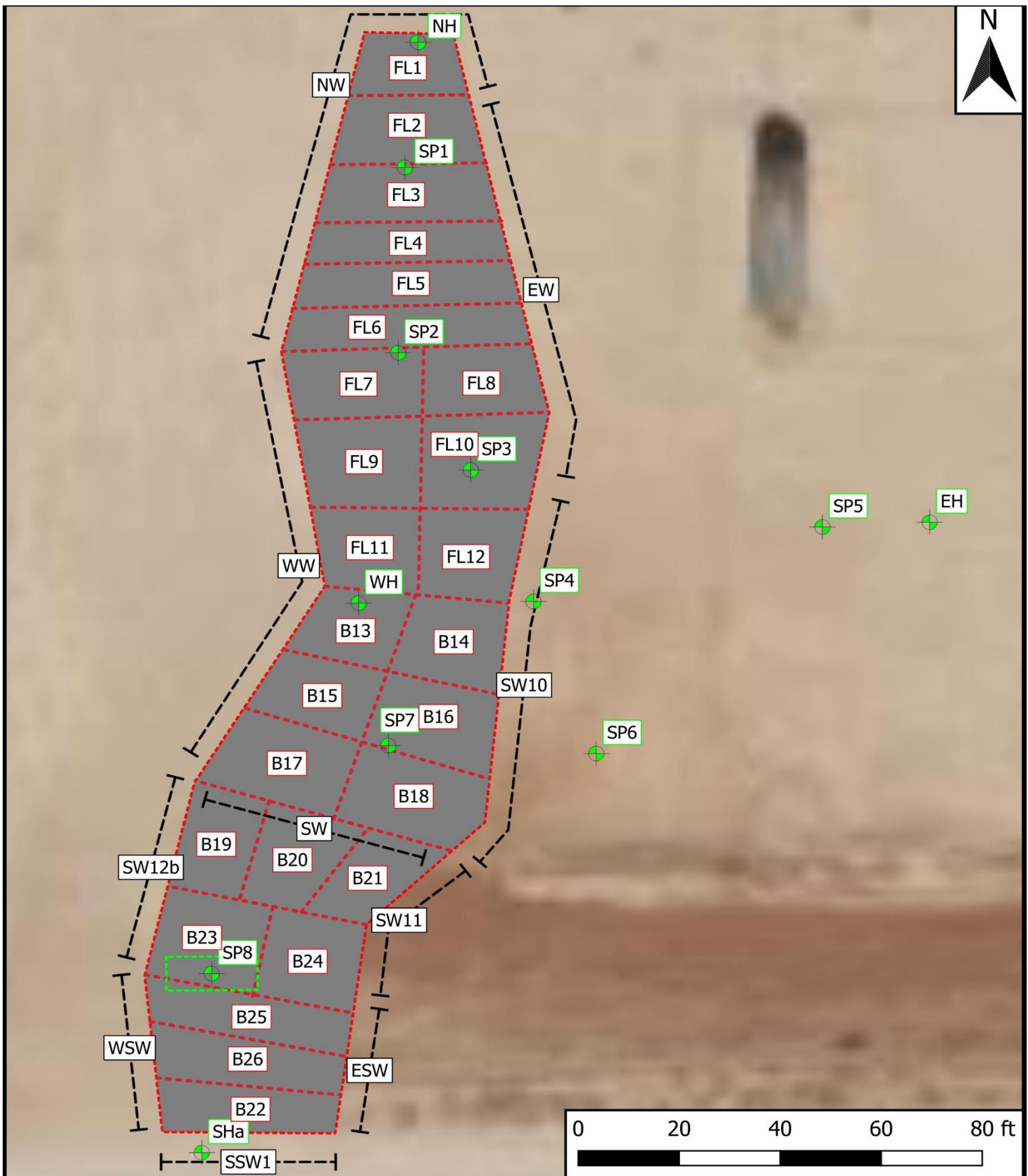


Figure 3

Site and Sample Location Map  
COG Operating, LLC  
Sopapilla State 1H  
GPS: 32.298294, -103.554784  
Lea County

## Legend

- Sample Point
- Floor Sample
- Test Trench
- Wall Sample
- Excavation



Drafted: mag  
Checked: jwl  
Date: 9/30/20

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

**TABLE 1**  
**CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL**  
**COG Operating, LLC**  
**Sopapilla State 1H**  
**NMOCD Ref. #: nRM2016949793**

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	10000
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 <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	
NH @ Surf.	7/23/2020	0'	Excavated	<0.00202	<0.00202	<50.0	214	214	<50.0	214	160
NH @ 1'	7/23/2020	1'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
WH @ Surf.	7/23/2020	0'	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	130
WH @ 1'	7/23/2020	1'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	10.0
EH @ Surf.	7/23/2020	0'	In-Situ	0.00208	0.00543	<49.9	<49.9	<49.9	<49.9	<49.9	62.7
EH @ 1'	7/23/2020	1'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	16.0
SHA @ Surf.	7/23/2020	0'	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	311
SHA @ 1'	7/23/2020	1'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	96.1
SP1 @ Surf.	7/23/2020	0'	Excavated	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	15,400
SP1 @ 1'	7/23/2020	1'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	43.3
SP2 @ Surf.	7/23/2020	0'	Excavated	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	16,200
SP2 @ 1'	7/23/2020	1'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	58.1
SP3 @ Surf.	7/23/2020	0'	Excavated	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	49,200
SP3 @ 2'	7/23/2020	2'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	171
SP4 @ Suf	7/23/2020	0'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	134
SP4 @ 1'	7/23/2020	1'	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	27.8
SP5 @ Surf.	7/23/2020	0'	In-Situ	<0.00199	0.00238	<50.0	<50.0	<50.0	<50.0	<50.0	285
SP5 @ 1'	7/23/2020	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	18.3
SP6 @ Surf.	7/23/2020	0'	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	119
SP6 @ 1'	7/23/2020	1'	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	25.0
SP7 @ Surf.	7/23/2020	0'	Excavated	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	21,000
SP7 @ 1'	7/23/2020	1'	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	200
SP8 @ Surf.	7/23/2020	0'	Excavated	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	18,800
SP8 @ 4'	7/23/2020	4'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	4,620
SP8 @ 8'	7/23/2020	8'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	4,900
Test Trench @ 9'	8/27/2020	9'	In-Situ	-	-	-	-	-	-	-	1,050
Test Trench @ 11'	8/27/2020	11'	In-Situ	-	-	-	-	-	-	-	352
NW	9/21/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	120
EW	9/21/2020	N/A	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	11.5
SW	9/21/2020	N/A	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	15.4
WW	9/21/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	22.7
FL1 @ 1'	9/21/2020	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	24.8
FL2 @ 1'	9/21/2020	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	41.2
FL3 @ 1'	9/21/2020	1'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	24.8
FL4 @ 1'	9/21/2020	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	9.61
FL5 @ 1'	9/21/2020	1'	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	32.7
FL6 @ 1'	9/21/2020	1'	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	26.6
FL7 @ 1'	9/21/2020	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	120
FL8 @ 1'	9/21/2020	1'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	163
FL9 @ 1'	9/21/2020	1'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	93.3
FL10 @ 1'	9/21/2020	1'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	255

**NOTES:**

- = Sample not analyzed for that constituent.

**Bold text** denotes a concentration that exceeds the NMOCD Closure Criteria

**TABLE 1**  
**CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL**  
**COG Operating, LLC**  
**Sopapilla State 1H**  
**NMOCD Ref. #: nRM2016949793**

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	10000
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 <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	
FL11 @ 1'	9/21/2020	1'	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	132
FL12 @ 1'	9/21/2020	1'	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	222
WSW	9/23/2020	N/A	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	27.3
ESW	9/23/2020	N/A	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	249
SW10	9/23/2020	N/A	In-Situ	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	101
SSW1	9/23/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	162
B13	9/23/2020	4'	In-Situ	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	172
B14	9/23/2020	4'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,260
B15	9/23/2020	4'	In-Situ	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	216
B16	9/23/2020	4'	In-Situ	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	266
B17	9/23/2020	4'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	578
B18	9/23/2020	4'	In-Situ	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	85.2
B19	9/23/2020	4'	In-Situ	<0.00248	<0.00248	<50.0	<50.0	<50.0	<50.0	<50.0	3,840
B20	9/23/2020	4'	In-Situ	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	3,750
B21	9/23/2020	4'	In-Situ	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,870
B22	9/23/2020	4'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,880
B23	9/24/2020	4'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	5,390
B24	9/24/2020	4'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,780
B25	9/24/2020	4'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	654
B26	9/24/2020	4'	In-Situ	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	1,490
SW11	9/24/2020	N/A	In-Situ	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	17.2
SW12b	9/24/2020	N/A	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	77.7

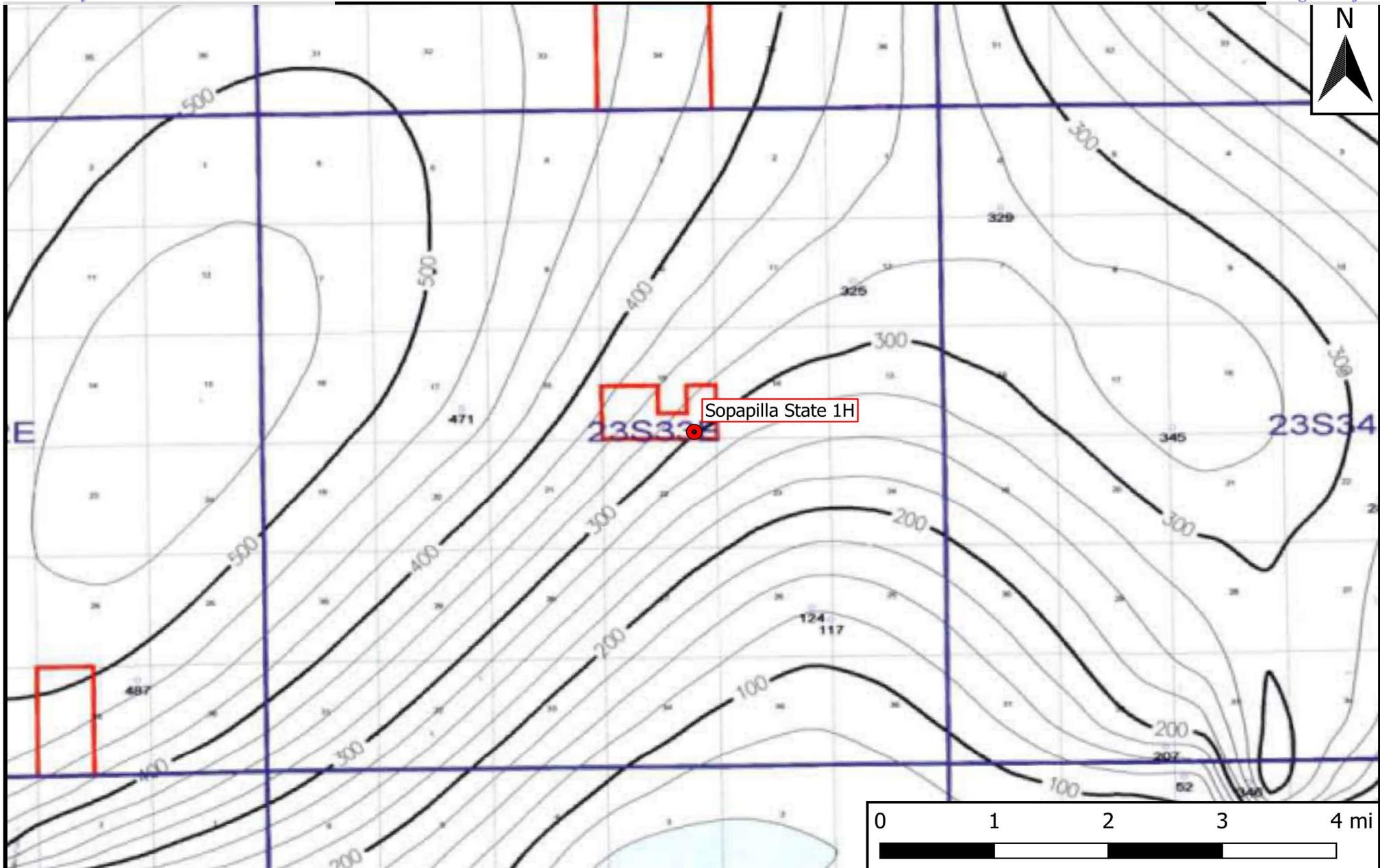
**NOTES:**

- = 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  
COG Operating, LLC  
Sopapilla State 1H  
GPS: 32.298294, -103.554784  
Lea County



Drafted: mag Checked: jwl

Date: 7/22/20

**BORING LOG NO. B-5**

Page 1 of 1

PROJECT: Medusa Water Impoundment Pond		CLIENT: Envirotech Engineering & Consulting, Inc. Enid, OK	
SITE: Latitude: 32.3008871, Longitude: -103.5644852 Lea County, New Mexico			
GRAPHIC LOG	LOCATION See Exhibit A-2  Latitude: 32.30014° Longitude: -103.566024°  Approximate Surface Elev: 3718 (Ft.) +/-	DEPTH (Ft.)	ELEVATION (Ft.)
DEPTH		DEPTH (Ft.)	
	SILTY SAND (SM), trace gravel, brown, medium dense  tan to white, very dense  reddish-brown  tan to white	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75	5-8-12 N=20 18-18-50/3" 50/5" 50/4" 50/3" 13-30-50/3" 32-50/3" 50/3"
	75.0	3643+/-	75
<b>Boring Terminated at 75 Feet</b>			
Stratification lines are approximate. In-situ, the transition may be gradual.		Hammer Type: Automatic	
Advancement Method: Hollow Stem Auger	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any).	Notes:	
Abandonment Method: Borings backfilled with soil cuttings upon completion.	See Appendix C for explanation of symbols and abbreviations.		
WATER LEVEL OBSERVATIONS		Boring Started: 8/10/2016	Boring Completed: 8/10/2016
No free water observed		Drill Rig: CME-75	Driller: C. Hart
		Project No.: 68165097	Exhibit: A-8
THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 68165097LOGS.GPJ TERRACON2015.GDT 8/15/16			
<b>Terracon</b> 4450 Bataan Memorial E Las Cruces, NM			



New Mexico Office of the State Engineer  
**Water Column/Average Depth to Water**

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 636070.82

**Northing (Y):** 3574417.2

**Radius:** 804.67

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

7/22/20 7:53 AM

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



# 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	Sub-	POD	Q Q Q	County	64	16	4	Sec	Tws	Rng	X	Y	Distance	Water Depth	Well Depth	Water Column
						C	LE	4	1	14	23S	33E	636583	3575666		1350	590
<a href="#">C_03582 POD1</a>																	

Average Depth to Water: —

Minimum Depth: —

Maximum Depth: —

**Record Count:** 1

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 636070.82      **Northing (Y):** 3574417.2      **Radius:** 1610

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

7/22/20 7:54 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
C 03582 POD1		4 1 1 14	23S 33E	636583	3575666

<b>Driller License:</b>	1682	<b>Driller Company:</b>	HUNGRY HORSE, LLC.
<b>Driller Name:</b>	NORRIS, JOHN D. (LD)		
<b>Drill Start Date:</b>	10/01/2012	<b>Drill Finish Date:</b>	10/18/2012
<b>Log File Date:</b>	11/21/2012	<b>PCW Rev Date:</b>	
<b>Pump Type:</b>			
<b>Casing Size:</b>	6.00	<b>Pipe Discharge Size:</b>	
<b>Depth Well:</b>	590 feet	<b>Estimated Yield:</b>	
<b>Depth Water:</b>			

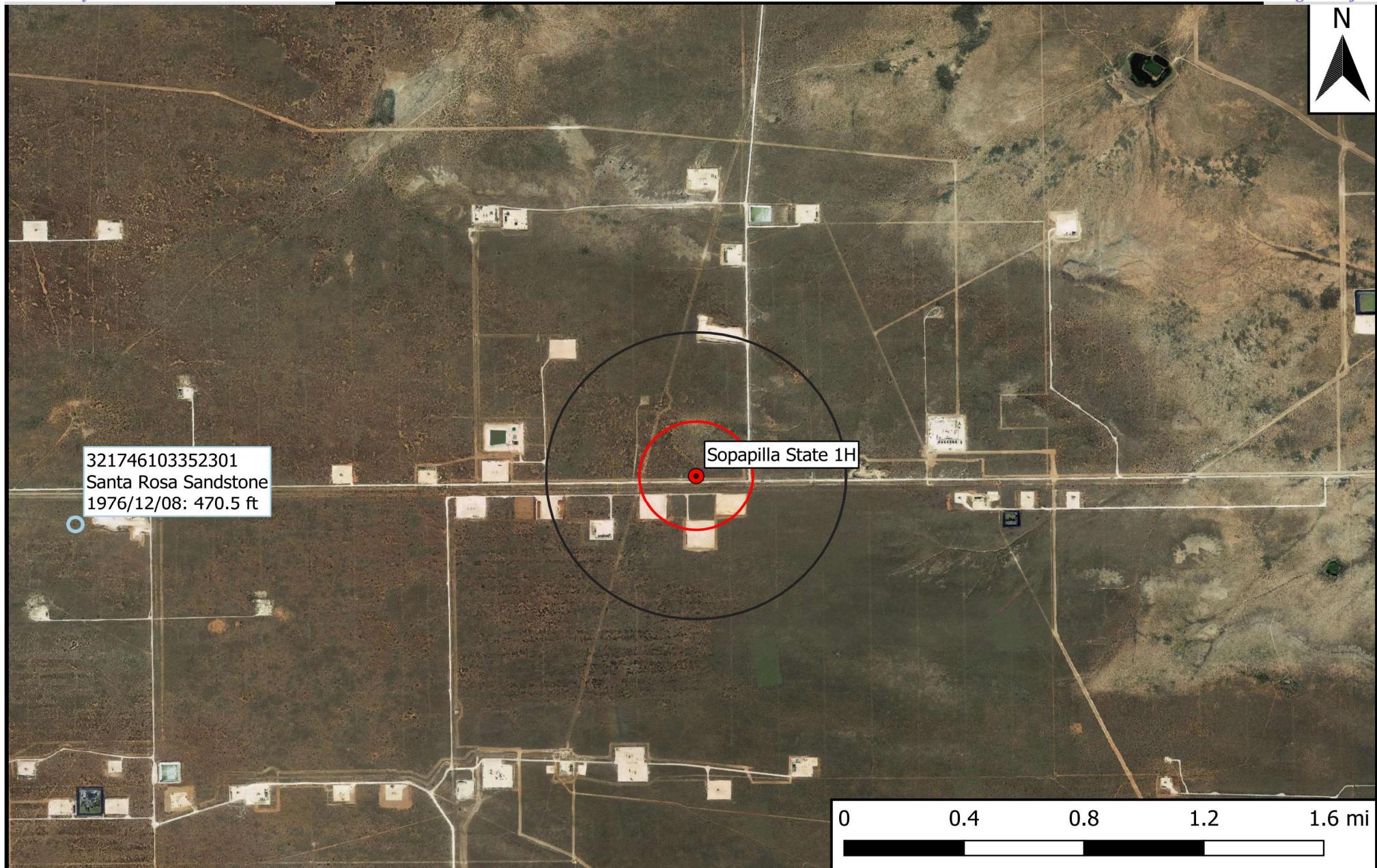
Water Bearing Stratifications:	Top	Bottom	Description
	18	65	Sandstone/Gravel/Conglomerate
	80	95	Shale/Mudstone/Siltstone
	95	110	Sandstone/Gravel/Conglomerate
	110	230	Shale/Mudstone/Siltstone
	230	236	Sandstone/Gravel/Conglomerate
	236	310	Shale/Mudstone/Siltstone
	310	362	Shale/Mudstone/Siltstone
	362	383	Shale/Mudstone/Siltstone
	383	391	Sandstone/Gravel/Conglomerate
	391	410	Shale/Mudstone/Siltstone
	410	416	Sandstone/Gravel/Conglomerate
	416	513	Shale/Mudstone/Siltstone
	513	520	Sandstone/Gravel/Conglomerate
	520	590	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	0	590

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

7/22/2020 7:54 AM

POINT OF DIVERSION SUMMARY

**Legend**

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

**Figure 5**  
USGS Well Proximity Map  
COG Operating, LLC  
Sopapilla State 1H  
GPS: 32.298294, -103.554784  
Lea County

**eTECH**  
Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 7/22/20



## National Water Information System: Web Interface

USGS Water Resources

Data Category:	Groundwater	Geographic Area:	United States	GO
----------------	-------------	------------------	---------------	----

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#)

Groundwater levels for the Nation

## Search Results -- 1 sites found

Agency code = usgs  
 site\_no list =  
     • 321746103352301

**Minimum number of levels = 1**[Save file of selected sites](#) to local disk for future upload**USGS 321746103352301 23S.33E.17.42331**

Lea County, New Mexico

Latitude 32°17'46", Longitude 103°35'23" NAD27

Land-surface elevation 3,699 feet above NAVD88

The depth of the well is 550 feet below land surface.

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

**Output formats**[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1972-09-21		D	504.40			2			U		U A
1976-12-08		D	470.50			2			U		U 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	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions about sites/data?](#)[Feedback on this web site](#)[Automated retrievals](#)[Help](#)[Data Tips](#)[Explanation of terms](#)[Subscribe for system changes](#)[News](#)

Accessibility    Plug-Ins    FOIA    Privacy    Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

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

Released to Imaging: 2/12/2021 10:45:14 AM





## **Appendix B**

### **Field Data and Soil Profile Logs**

## Initial Release Assessment Form

Date:

7/23/20

Project: Sopapilla State 1H

Clean Up Level:

0

Project Number: Pending

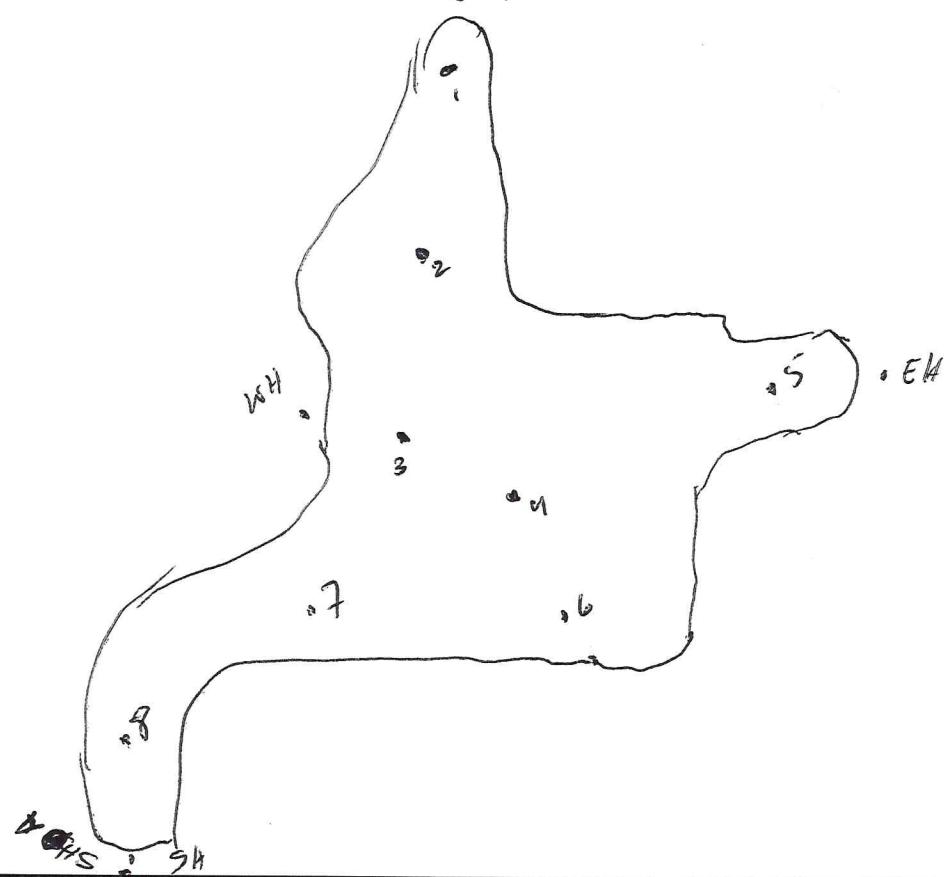
Latitude:

32.298294

Longitude:

-103.554784

Site Diagram

*NA**15-18 ft. com 5 ft*

Notes: Pad is N. Thistle for Devon  
 8 Verticals 9 Horizontals

~Length: 210' ~Width: 155' ~Area: 9,670 sqft ~Depth: >8' @ 50%

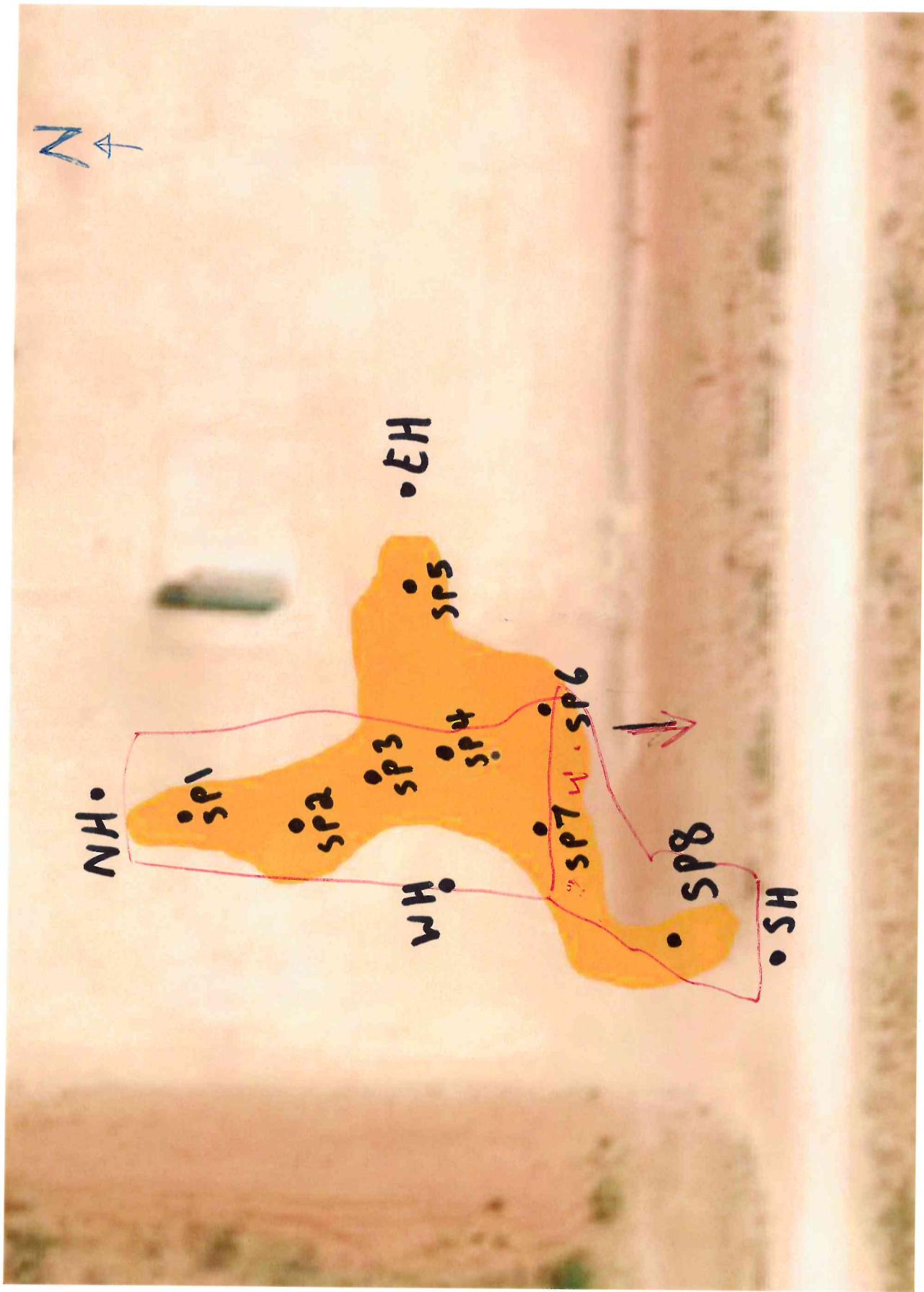
3-4 Representative Pictures of the Affected Area including sample locations?

Necessary Samples Field Screened and on Ice?

Sample and Field Screen Data Entered on Sample Log?

Was horizontal and vertical delineation achieved?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>





## Sample Log

Date:

7-23-20

Project: Sopapilla State 1H

Project Number: Pending Latitude: 32.298294 Longitude: -103.554784

Sample ID	PID/Odor	Chloride Conc.	GPS
NH @ Surf	-	976	
NH @ 1'	-	184	
EH @ Surf	-	212	
EH @ 1'	-	312	7551ps
WH @ Surf	-	932	
WH @ 1'	-	294	
SH @ Surf	-	>2584	
SH @ 1'	-	244	
SH@A @ Surf	-	568	
SH@A @ 1'	-	312	
SP8 @ Surf	-	>2584 21240	
SP8 @ 1'	-	>2584	
SP8 @ 2'	-	22584	
SP8 @ 3'	-	22584	
SP7 @ Surf	-	>2584 18880	
SP7 @ 1'	-	312	
SP8 @ 4'	-	-	
SP8 @ 5'	-	>2584	
SP6 @ Surf.	-	348	
SP6 @ 1'	-	184	
SP8 @ 8'	-	72584 4172	
SP5 @ Surf	-	348	
SP5 @ 1'	-	5112	
SP4 @ Surf	-	294	
SP4 @ 300 1'	-	160	
SP3 @ Surf	-	>2584 >27592	
SP3 @ 1'	-	>2584	
SP3 @ 2'	-	388	
SP2 @ Surf.	-	>2584 21240	
SP2 @ 1'	-	184	
SP1 @ Surf.	-	>2584 21240	
SP1 @ 1'	-	276	
Trench @ 8'	-	1336	
Trench @ 10'	-	348	
Trench @ 11'	-	28212	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

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

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

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

GPS Sample Points, Center of Comp Areas



## Soil Profile

Date:

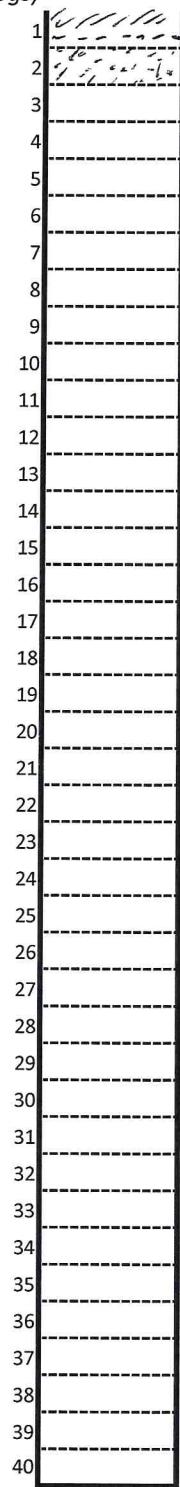
7/23/20

Project: Sopapilla State 1H

Project Number: Pending Latitude: 32.298294

Longitude: -103.554784

Depth (ft. bgs)

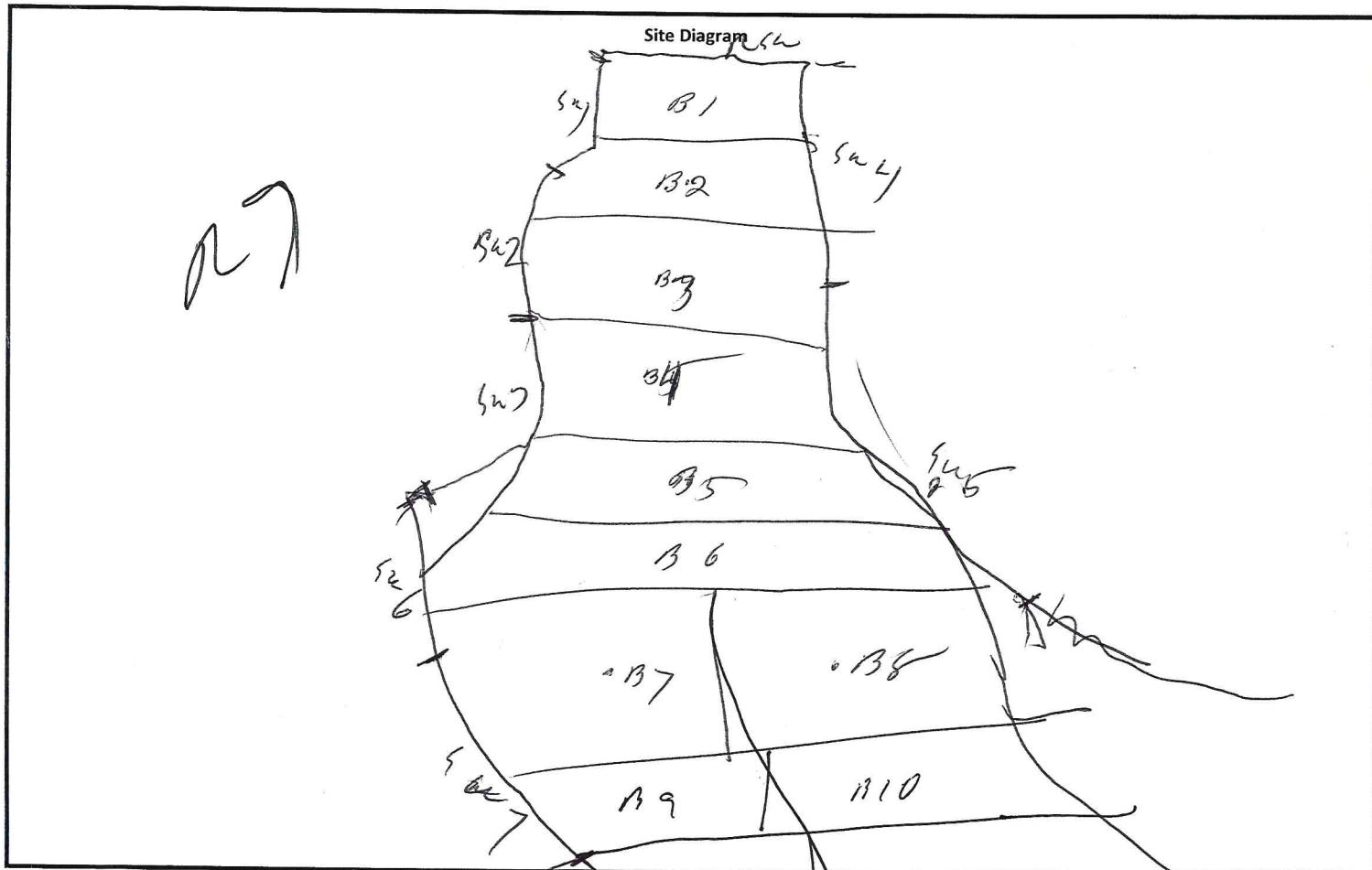


	Description
1	caliche pad
2	Red Brown drift
3	
4	
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13	
14	
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40	

## Initial Release Assessment Form

Project: Spill site  
Project Number: 12708

Clean Up Level: \_\_\_\_\_ Date: 9-17-20  
Latitude: 32.29829 Longitude: -103.554784



**Notes:**

Handwritten notes are present in the bottom right corner of the notes box, corresponding to the sampling points B13 and B14.

~Length:

~Width:

~Area:

~Depth:

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

Yes	No
-----	----

Necessary Samples Field Screened and on Ice?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Sample and Field Screen Data Entered on Sample Log?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Was horizontal and vertical delineation achieved?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

### Sample Log

Project: Sopapilla State 1H      Date: 9-17-20

Project Number: 12788      Latitude: 32.298294      Longitude: -103.554784

Sample ID	PID/Odor	Chloride Conc.	GPS
B1		ND	
B2		ND	
B3		ND	
B4		80	
B5		560	
B6		280	
B7		200	
B8		240	
SW1		168	
SW2		120	
SW3		560	
SW4		ND	
SW5		ND	
SW6		200	
SW7		200-60	
<del>9-21-20</del>			
NSW		200	
9-21-20			
B9		344	
B10		280	
SW8		1624*	
B11		180	
B-12		280	
SW8b		ND	
SW9		160	
X-B-13		1724	
X-B-14		250*	
B5b		180	
B-13b		280	
B-12,5		360	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

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

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

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

GPS Sample Points, Center of Comp Areas

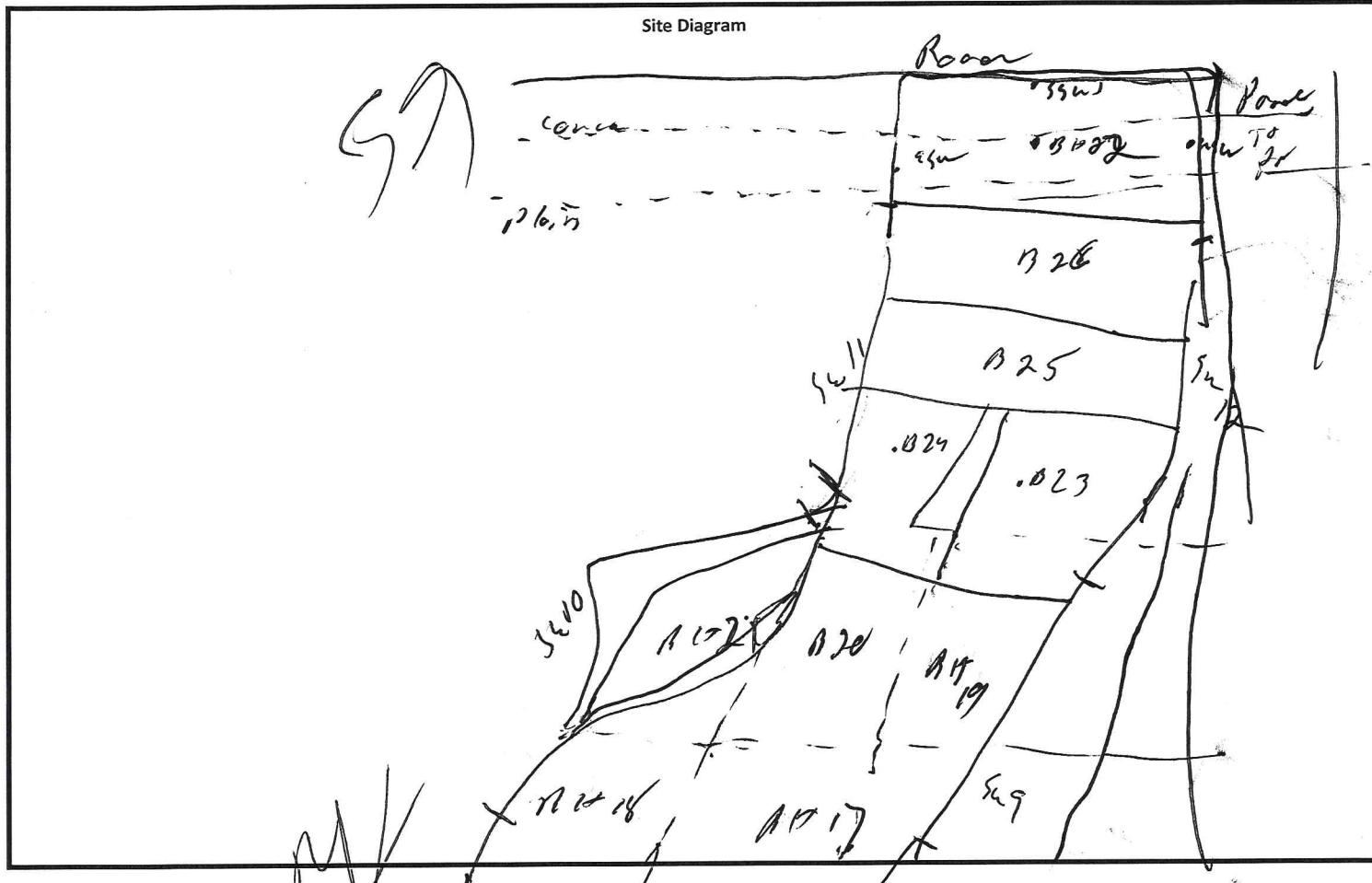
## Initial Release Assessment Form

Date: 8-23-20
 Project: Sopapilla State 1H  
 Project Number: 12788

Clean Up Level: 0

Latitude: 32.298294

Longitude: -103.554784

**Notes:**

*B16, B15, B14, B13*

~Length:

~Width:

~Area:

~Depth:

Yes	No
-----	----

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?



## Sample Log

Date:

9-27-20

Project: Sopapilla State 1H

Project Number: Pending Latitude: 32.298294 Longitude: -103.554784

Sample ID	PID/Odor	Chloride Conc.	GPS
B 15	25	1600	
B-16	25	3600	
B 17	345	716	
B 18	15	340	
B 19	445	2500	
B 20	445	2500	
B 21	28	340	
S 10		2500	
B 14	22 at 4ft	840	
ESR		160	
SSR 1		384	
USA		nD	
SU11		nD	
<del>SU12</del>	<del>—</del>	<del>1380</del>	
B 23	at 4ft	2500	
B 24	at 4ft	2500	
B 25	at 4ft	780	
B 26	at 4ft	1380	
SU 12 b		388	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

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

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

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

GPS Sample Points, Center of Comp Areas

## **Appendix C**

### **Laboratory Analytical Reports**

# Certificate of Analysis Summary 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

**Project Id:** 12788

**Date Received in Lab:** Mon 07.27.2020 11:15

**Contact:** PM

**Report Date:** 07.31.2020 15:56

**Project Location:** Rural Lea County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	668220-001 NH @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-002 NH @ 1' 1- ft SOIL 07.23.2020 00:00	668220-003 WH @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-004 WH @ 1' 1- ft SOIL 07.23.2020 00:00	668220-005 EH @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-006 EH @ 1' 1- ft SOIL 07.23.2020 00:00
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.30.2020 08:00 07.30.2020 18:31 mg/kg	07.30.2020 08:00 07.30.2020 18:52 RL	07.29.2020 16:30 07.30.2020 00:21 mg/kg	07.29.2020 16:30 07.30.2020 00:41 RL	07.29.2020 16:30 07.30.2020 01:02 mg/kg	07.29.2020 16:30 07.30.2020 01:22 RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	0.00208 0.00200	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	0.00335 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00404 0.00404	<0.00399 0.00399	<0.00396 0.00396	<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	0.00543 0.00200	<0.00199 0.00199
<b>Chloride by EPA 300</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.27.2020 16:20 07.27.2020 22:45 mg/kg	07.27.2020 16:20 07.27.2020 22:51 RL	07.27.2020 16:20 07.27.2020 22:57 mg/kg	07.27.2020 16:20 07.27.2020 23:04 RL	07.27.2020 16:20 07.27.2020 23:10 mg/kg	07.27.2020 16:20 07.27.2020 23:16 RL
Chloride		160 4.95	<4.99 4.99	130 5.00	10.0 5.04	62.7 4.98	16.0 5.00
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.27.2020 15:00 07.27.2020 20:17 mg/kg	07.27.2020 15:00 07.27.2020 21:14 RL	07.27.2020 15:00 07.27.2020 21:33 mg/kg	07.27.2020 15:00 07.27.2020 21:52 RL	07.27.2020 15:00 07.27.2020 22:11 mg/kg	07.27.2020 15:00 07.27.2020 22:29 RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		214 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Total TPH		214 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9

BRL - Below Reporting Limit

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



# Certificate of Analysis Summary 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

**Project Id:** 12788

**Date Received in Lab:** Mon 07.27.2020 11:15

**Contact:** PM

**Report Date:** 07.31.2020 15:56

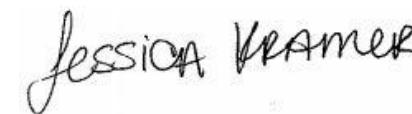
**Project Location:** Rural Lea County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	668220-007 SHA @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-008 SHA @ 1' 1- ft SOIL 07.23.2020 00:00	668220-009 SP1 @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-010 SP1 @ 1' 1- ft SOIL 07.23.2020 00:00	668220-011 SP2 @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-012 SP2 @ 1' 1- ft SOIL 07.23.2020 00:00
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.29.2020 16:30 07.30.2020 01:42 mg/kg	07.29.2020 16:30 07.30.2020 02:03 RL	07.29.2020 16:30 07.30.2020 02:23 mg/kg	07.29.2020 16:30 07.30.2020 03:47 RL	07.29.2020 16:30 07.30.2020 04:07 mg/kg	07.29.2020 16:30 07.30.2020 04:27 RL
Benzene	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Toluene	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes	<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399
o-Xylene	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
<b>Chloride by EPA 300</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.27.2020 16:30 07.29.2020 15:56 mg/kg	07.27.2020 16:30 07.29.2020 16:12 RL	07.27.2020 16:30 07.29.2020 16:17 mg/kg	07.27.2020 16:30 07.29.2020 16:22 RL	07.27.2020 16:30 07.29.2020 16:27 mg/kg	07.27.2020 16:30 07.29.2020 17:55 RL
Chloride	311 4.98	96.1 4.99	15400 248	43.3 5.02	16200 250	58.1 4.95	
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.27.2020 15:00 07.27.2020 22:48 mg/kg	07.27.2020 15:00 07.28.2020 06:43 RL	07.27.2020 15:00 07.28.2020 07:01 mg/kg	07.27.2020 15:00 07.28.2020 07:19 RL	07.27.2020 15:00 07.28.2020 07:55 mg/kg	07.27.2020 15:00 07.28.2020 08:14 RL
Gasoline Range Hydrocarbons (GRO)	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0

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# Certificate of Analysis Summary 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

**Project Id:** 12788

**Date Received in Lab:** Mon 07.27.2020 11:15

**Contact:** PM

**Report Date:** 07.31.2020 15:56

**Project Location:** Rural Lea County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	668220-013 SP3 @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-014 SP3 @ 2' 2- ft SOIL 07.23.2020 00:00	668220-015 SP4 @ Suf 0- ft SOIL 07.23.2020 00:00	668220-016 SP4 @ 1' 1- ft SOIL 07.23.2020 00:00	668220-017 SP5 @ Surf. 0- ft SOIL 07.23.2020 00:00	668220-018 SP5 @ 1' 1- ft SOIL 07.23.2020 00:00
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.29.2020 16:30 07.30.2020 04:48 mg/kg	07.29.2020 16:30 07.30.2020 05:08 RL	07.29.2020 16:30 07.30.2020 05:29 mg/kg	07.29.2020 16:30 07.30.2020 05:49 RL	07.29.2020 16:30 07.30.2020 06:10 mg/kg	07.29.2020 16:30 07.30.2020 06:30 RL
Benzene	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Toluene	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	0.00238 0.00199	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes	<0.00397 0.00397	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398
o-Xylene	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total BTEX	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	0.00238 0.00199	<0.00199 0.00199	<0.00199 0.00199
<b>Chloride by EPA 300</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.27.2020 16:30 07.29.2020 18:00 mg/kg	07.27.2020 16:30 07.29.2020 18:06 RL	07.27.2020 16:30 07.29.2020 18:11 mg/kg	07.27.2020 16:30 07.29.2020 18:16 RL	07.27.2020 16:30 07.29.2020 18:22 mg/kg	07.27.2020 16:30 07.29.2020 18:37 RL
Chloride	49200 252	171 4.98	134 5.00	27.8 5.04	285 4.99	18.3 4.97	
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> <i>Analyzed:</i> <i>Units/RL:</i>	07.27.2020 15:00 07.28.2020 08:33 mg/kg	07.27.2020 15:00 07.28.2020 08:51 RL	07.27.2020 15:00 07.28.2020 09:10 mg/kg	07.27.2020 15:00 07.28.2020 09:29 RL	07.27.2020 15:00 07.28.2020 09:48 mg/kg	07.27.2020 15:00 07.28.2020 10:07 RL
Gasoline Range Hydrocarbons (GRO)	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0

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# Certificate of Analysis Summary 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

**Project Id:** 12788

**Date Received in Lab:** Mon 07.27.2020 11:15

**Contact:** PM

**Report Date:** 07.31.2020 15:56

**Project Location:** Rural Lea County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> 668220-019	<b>Field Id:</b> SP6 @ Surf.	<b>Depth:</b> 0- ft	<b>Matrix:</b> SOIL	<b>Sampled:</b> 07.23.2020 00:00	<b>668220-020</b>	<b>SP6 @ 1'</b>	<b>668220-021</b>	<b>SP7 @ Surf.</b>	<b>668220-022</b>	<b>SP7 @ 1'</b>	<b>668220-023</b>	<b>SP8 @ Surf.</b>	<b>668220-024</b>
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> 07.29.2020 16:30	<b>Analyzed:</b> 07.30.2020 06:50	<b>Units/RL:</b> mg/kg RL	<b>07.29.2020 16:30</b>	<b>07.29.2020 21:40</b>	<b>07.29.2020 16:30</b>	<b>07.29.2020 22:01</b>	<b>07.29.2020 16:30</b>	<b>07.29.2020 22:21</b>	<b>07.29.2020 16:30</b>	<b>07.29.2020 22:42</b>	<b>07.29.2020 16:30</b>	<b>07.29.2020 23:02</b>	
Benzene	<0.00198	0.00198		<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	
Toluene	<0.00198	0.00198		<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	
Ethylbenzene	<0.00198	0.00198		<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	
m,p-Xylenes	<0.00397	0.00397		<0.00396	0.00396	<0.00401	0.00401	<0.00403	0.00403	<0.00402	0.00402	<0.00402	0.00402	
o-Xylene	<0.00198	0.00198		<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	
Total Xylenes	<0.00198	0.00198		<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	
Total BTEX	<0.00198	0.00198		<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	
<b>Chloride by EPA 300</b>	<b>Extracted:</b> 07.27.2020 16:30	<b>Analyzed:</b> 07.29.2020 18:43	<b>Units/RL:</b> mg/kg RL	<b>07.27.2020 16:30</b>	<b>07.29.2020 19:04</b>	<b>07.27.2020 16:30</b>	<b>07.29.2020 19:09</b>	<b>07.27.2020 16:30</b>	<b>07.29.2020 19:14</b>	<b>07.27.2020 16:30</b>	<b>07.29.2020 19:20</b>	<b>07.27.2020 16:30</b>	<b>07.29.2020 19:25</b>	
Chloride	119	4.99		25.0	4.96	21000	253	200	5.05	18800	250	4620	24.9	
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> 07.27.2020 15:00	<b>Analyzed:</b> 07.28.2020 10:26	<b>Units/RL:</b> mg/kg RL	<b>07.27.2020 15:00</b>	<b>07.28.2020 10:45</b>	<b>07.28.2020 12:00</b>	<b>07.28.2020 13:21</b>	<b>07.28.2020 12:00</b>	<b>07.28.2020 14:46</b>	<b>07.28.2020 12:00</b>	<b>07.28.2020 15:05</b>	<b>07.28.2020 12:00</b>	<b>07.28.2020 15:24</b>	
Gasoline Range Hydrocarbons (GRO)	<49.9	49.9		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	
Diesel Range Organics (DRO)	<49.9	49.9		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	
Motor Oil Range Hydrocarbons (MRO)	<49.9	49.9		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	
Total TPH	<49.9	49.9		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	

BRL - Below Reporting Limit

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# Certificate of Analysis Summary 668220

Etech Environmental & Safety Solution, Inc, Midland, TX

## Project Name: Sopapilla State 1H

**Project Id:** 12788

**Contact:** PM

**Project Location:** Rural Lea County, NM

**Date Received in Lab:** Mon 07.27.2020 11:15

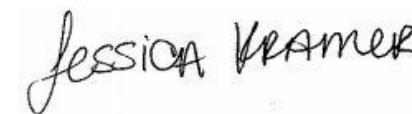
**Report Date:** 07.31.2020 15:56

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>		<b>Lab Id:</b> 668220-025					
		<b>Field Id:</b> SP8 @ 8'					
		<b>Depth:</b> 8- ft					
		<b>Matrix:</b> SOIL					
		<b>Sampled:</b> 07.23.2020 00:00					
<b>BTEX by EPA 8021B</b>		<b>Extracted:</b> 07.29.2020 16:30					
		<b>Analyzed:</b> 07.29.2020 23:22					
		<b>Units/RL:</b> mg/kg      RL					
Benzene		<0.00200    0.00200					
Toluene		<0.00200    0.00200					
Ethylbenzene		<0.00200    0.00200					
m,p-Xylenes		<0.00399    0.00399					
o-Xylene		<0.00200    0.00200					
Total Xylenes		<0.00200    0.00200					
Total BTEX		<0.00200    0.00200					
<b>Chloride by EPA 300</b>		<b>Extracted:</b> 07.27.2020 16:30					
		<b>Analyzed:</b> 07.29.2020 19:30					
		<b>Units/RL:</b> mg/kg      RL					
Chloride		4900      49.9					
<b>TPH by SW8015 Mod</b>		<b>Extracted:</b> 07.28.2020 12:00					
		<b>Analyzed:</b> 07.28.2020 15:43					
		<b>Units/RL:</b> mg/kg      RL					
Gasoline Range Hydrocarbons (GRO)		<49.9      49.9					
Diesel Range Organics (DRO)		<49.9      49.9					
Motor Oil Range Hydrocarbons (MRO)		<49.9      49.9					
Total TPH		<49.9      49.9					

BRL - Below Reporting Limit

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



# Analytical Report 668220

for

**Etech Environmental & Safety Solution, Inc**

**Project Manager: PM**

**Sopapilla State 1H**

**12788**

**07.31.2020**

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)



07.31.2020

Project Manager: **PM**  
**Etech Environmental & Safety Solution, Inc**  
P.O. Box 62228  
Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **668220**

**Sopapilla State 1H**

Project Address: Rural Lea County, NM

**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) 668220. 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. 668220 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

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**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 668220****Etech Environmental & Safety Solution, Inc, Midland, TX**

Sopapilla State 1H

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
NH @ Surf.	S	07.23.2020 00:00	0 ft	668220-001
NH @ 1'	S	07.23.2020 00:00	1 ft	668220-002
WH @ Surf.	S	07.23.2020 00:00	0 ft	668220-003
WH @ 1'	S	07.23.2020 00:00	1 ft	668220-004
EH @ Surf.	S	07.23.2020 00:00	0 ft	668220-005
EH @ 1'	S	07.23.2020 00:00	1 ft	668220-006
SHA @ Surf.	S	07.23.2020 00:00	0 ft	668220-007
SHA @ 1'	S	07.23.2020 00:00	1 ft	668220-008
SP1 @ Surf.	S	07.23.2020 00:00	0 ft	668220-009
SP1 @ 1'	S	07.23.2020 00:00	1 ft	668220-010
SP2 @ Surf.	S	07.23.2020 00:00	0 ft	668220-011
SP2 @ 1'	S	07.23.2020 00:00	1 ft	668220-012
SP3 @ Surf.	S	07.23.2020 00:00	0 ft	668220-013
SP3 @ 2'	S	07.23.2020 00:00	2 ft	668220-014
SP4 @ Surf.	S	07.23.2020 00:00	0 ft	668220-015
SP4 @ 1'	S	07.23.2020 00:00	1 ft	668220-016
SP5 @ Surf.	S	07.23.2020 00:00	0 ft	668220-017
SP5 @ 1'	S	07.23.2020 00:00	1 ft	668220-018
SP6 @ Surf.	S	07.23.2020 00:00	0 ft	668220-019
SP6 @ 1'	S	07.23.2020 00:00	1 ft	668220-020
SP7 @ Surf.	S	07.23.2020 00:00	0 ft	668220-021
SP7 @ 1'	S	07.23.2020 00:00	1 ft	668220-022
SP8 @ Surf.	S	07.23.2020 00:00	0 ft	668220-023
SP8 @ 4'	S	07.23.2020 00:00	4 ft	668220-024
SP8 @ 8'	S	07.23.2020 00:00	8 ft	668220-025

## CASE NARRATIVE

**Client Name: Etech Environmental & Safety Solution, Inc**

**Project Name: Sopapilla State IH**

Project ID: 12788  
Work Order Number(s): 668220

Report Date: 07.31.2020  
Date Received: 07.27.2020

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**Sample receipt non conformances and comments:**

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3132998 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.  
Samples affected are: 668220-012,668220-013,668220-014,668220-019,668220-016,668220-017,668220-018,668220-015.

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **NH @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-001 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>160</b>	4.95	mg/kg	07.27.2020 22:45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.27.2020 20:17	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>214</b>	50.0	mg/kg	07.27.2020 20:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.27.2020 20:17	U	1
<b>Total TPH</b>	PHC635	<b>214</b>	50.0	mg/kg	07.27.2020 20:17		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	109	%	70-130	07.27.2020 20:17		
o-Terphenyl	84-15-1	122	%	70-130	07.27.2020 20:17		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: NH @ Surf. Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-001 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Basis: Wet Weight  
 Seq Number: 3133086

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.30.2020 18:31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.30.2020 18:31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.30.2020 18:31	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.30.2020 18:31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.30.2020 18:31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.30.2020 18:31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.30.2020 18:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	07.30.2020 18:31		
1,4-Difluorobenzene	540-36-3	109	%	70-130	07.30.2020 18:31		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: NH @ 1' Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-002 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	07.27.2020 22:51	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.27.2020 21:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.27.2020 21:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.27.2020 21:14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.27.2020 21:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	07.27.2020 21:14	
o-Terphenyl	84-15-1	108	%	70-130	07.27.2020 21:14	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: NH @ 1' Matrix: Soil Date Received:07.27.2020 11:15  
 Lab Sample Id: 668220-002 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Date Prep: 07.30.2020 08:00 Basis: Wet Weight  
 Seq Number: 3133086

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.30.2020 18:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.30.2020 18:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.30.2020 18:52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.30.2020 18:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.30.2020 18:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.30.2020 18:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.30.2020 18:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.30.2020 18:52		
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.30.2020 18:52		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **WH @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-003 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	130	5.00	mg/kg	07.27.2020 22:57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.27.2020 21:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.27.2020 21:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.27.2020 21:33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.27.2020 21:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	109	%	70-130	07.27.2020 21:33		
o-Terphenyl	84-15-1	112	%	70-130	07.27.2020 21:33		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **WH @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-003 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.30.2020 00:21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.30.2020 00:21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.30.2020 00:21	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.30.2020 00:21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.30.2020 00:21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.30.2020 00:21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.30.2020 00:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	07.30.2020 00:21		
4-Bromofluorobenzene	460-00-4	125	%	70-130	07.30.2020 00:21		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: WH @ 1' Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-004 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.0	5.04	mg/kg	07.27.2020 23:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.27.2020 21:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.27.2020 21:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.27.2020 21:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.27.2020 21:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	07.27.2020 21:52	
o-Terphenyl	84-15-1	120	%	70-130	07.27.2020 21:52	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: WH @ 1' Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-004 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.30.2020 00:41	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.30.2020 00:41	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.30.2020 00:41	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.30.2020 00:41	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.30.2020 00:41	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.30.2020 00:41	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.30.2020 00:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	07.30.2020 00:41		
4-Bromofluorobenzene	460-00-4	124	%	70-130	07.30.2020 00:41		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **EH @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-005 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	62.7	4.98	mg/kg	07.27.2020 23:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.27.2020 22:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.27.2020 22:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.27.2020 22:11	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.27.2020 22:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-130	07.27.2020 22:11		
o-Terphenyl	84-15-1	117	%	70-130	07.27.2020 22:11		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **EH @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-005 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<b>0.00208</b>	0.00200	mg/kg	07.30.2020 01:02		1
Toluene	108-88-3	<b>0.00335</b>	0.00200	mg/kg	07.30.2020 01:02		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.30.2020 01:02	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.30.2020 01:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.30.2020 01:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.30.2020 01:02	U	1
<b>Total BTEX</b>		<b>0.00543</b>	0.00200	mg/kg	07.30.2020 01:02		1
<b>Surrogate</b>							
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.30.2020 01:02		
1,4-Difluorobenzene	540-36-3	110	%	70-130	07.30.2020 01:02		



## Certificate of Analytical Results 668220

**Etech Environmental & Safety Solution, Inc, Midland, TX**  
**Sopapilla State 1H**

Sample Id: **EH @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
Lab Sample Id: 668220-006 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
Analytical Method: Chloride by EPA 300 Prep Method: E300P  
Tech: CHE % Moisture:  
Analyst: CHE Basis: Wet Weight  
Seq Number: 3132747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>16.0</b>	5.00	mg/kg	07.27.2020 23:16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
Tech: DVM % Moisture:  
Analyst: ARM Basis: Wet Weight  
Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.27.2020 22:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.27.2020 22:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.27.2020 22:29	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.27.2020 22:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	07.27.2020 22:29	
o-Terphenyl	84-15-1	117	%	70-130	07.27.2020 22:29	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **EH @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-006 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.30.2020 01:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.30.2020 01:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.30.2020 01:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.30.2020 01:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.30.2020 01:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.30.2020 01:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.30.2020 01:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	07.30.2020 01:22		
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.30.2020 01:22		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SHA @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-007 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	311	4.98	mg/kg	07.29.2020 15:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.27.2020 22:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.27.2020 22:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.27.2020 22:48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.27.2020 22:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	107	%	70-130	07.27.2020 22:48		
o-Terphenyl	84-15-1	109	%	70-130	07.27.2020 22:48		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SHA @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-007 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.30.2020 01:42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.30.2020 01:42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.30.2020 01:42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.30.2020 01:42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.30.2020 01:42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.30.2020 01:42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.30.2020 01:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	07.30.2020 01:42		
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.30.2020 01:42		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SHA @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-008 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>96.1</b>	4.99	mg/kg	07.29.2020 16:12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 06:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 06:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 06:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 06:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-130	07.28.2020 06:43		
o-Terphenyl	84-15-1	116	%	70-130	07.28.2020 06:43		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: SHA @ 1' Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-008 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.30.2020 02:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.30.2020 02:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.30.2020 02:03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.30.2020 02:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.30.2020 02:03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.30.2020 02:03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.30.2020 02:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.30.2020 02:03		
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.30.2020 02:03		



## Certificate of Analytical Results 668220

**Etech Environmental & Safety Solution, Inc, Midland, TX**  
**Sopapilla State 1H**

Sample Id: **SP1 @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-009 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>15400</b>	248	mg/kg	07.29.2020 16:17		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.28.2020 07:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.28.2020 07:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.28.2020 07:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.28.2020 07:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	07.28.2020 07:01	
o-Terphenyl	84-15-1	116	%	70-130	07.28.2020 07:01	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP1 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-009 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.30.2020 02:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.30.2020 02:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.30.2020 02:23	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.30.2020 02:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.30.2020 02:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.30.2020 02:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.30.2020 02:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	70-130	07.30.2020 02:23		
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.30.2020 02:23		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP1 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-010 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>43.3</b>	5.02	mg/kg	07.29.2020 16:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.28.2020 07:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.28.2020 07:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.28.2020 07:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.28.2020 07:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-130	07.28.2020 07:19		
o-Terphenyl	84-15-1	120	%	70-130	07.28.2020 07:19		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP1 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-010 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.30.2020 03:47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.30.2020 03:47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.30.2020 03:47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.30.2020 03:47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.30.2020 03:47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.30.2020 03:47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.30.2020 03:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.30.2020 03:47		
4-Bromofluorobenzene	460-00-4	124	%	70-130	07.30.2020 03:47		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP2 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-011 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>16200</b>	250	mg/kg	07.29.2020 16:27		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 07:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 07:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 07:55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 07:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	07.28.2020 07:55	
o-Terphenyl	84-15-1	114	%	70-130	07.28.2020 07:55	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP2 @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-011 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.30.2020 04:07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.30.2020 04:07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.30.2020 04:07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.30.2020 04:07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.30.2020 04:07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.30.2020 04:07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.30.2020 04:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.30.2020 04:07		
4-Bromofluorobenzene	460-00-4	128	%	70-130	07.30.2020 04:07		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP2 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-012 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>58.1</b>	4.95	mg/kg	07.29.2020 17:55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 08:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 08:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 08:14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 08:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	07.28.2020 08:14	
o-Terphenyl	84-15-1	119	%	70-130	07.28.2020 08:14	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP2 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-012 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.30.2020 04:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.30.2020 04:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.30.2020 04:27	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.30.2020 04:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.30.2020 04:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.30.2020 04:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.30.2020 04:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	136	%	70-130	07.30.2020 04:27	**	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.30.2020 04:27		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SP3 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-013 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>49200</b>	252	mg/kg	07.29.2020 18:00		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.28.2020 08:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.28.2020 08:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.28.2020 08:33	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.28.2020 08:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-130	07.28.2020 08:33		
o-Terphenyl	84-15-1	120	%	70-130	07.28.2020 08:33		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP3 @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-013 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.30.2020 04:48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.30.2020 04:48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.30.2020 04:48	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.30.2020 04:48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.30.2020 04:48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.30.2020 04:48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.30.2020 04:48	U	1
<b>Surrogate</b>							
4-Bromofluorobenzene	460-00-4	133	%	70-130	07.30.2020 04:48	**	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.30.2020 04:48		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP3 @ 2'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-014 Date Collected: 07.23.2020 00:00 Sample Depth: 2 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	171	4.98	mg/kg	07.29.2020 18:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 08:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 08:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 08:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 08:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-130	07.28.2020 08:51		
o-Terphenyl	84-15-1	120	%	70-130	07.28.2020 08:51		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP3 @ 2'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-014 Date Collected: 07.23.2020 00:00 Sample Depth: 2 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.30.2020 05:08	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.30.2020 05:08	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.30.2020 05:08	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.30.2020 05:08	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.30.2020 05:08	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.30.2020 05:08	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.30.2020 05:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	132	%	70-130	07.30.2020 05:08	**	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.30.2020 05:08		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: SP4 @ Suf      Matrix: Soil      Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-015      Date Collected: 07.23.2020 00:00      Sample Depth: 0 ft  
 Analytical Method: Chloride by EPA 300      Prep Method: E300P  
 Tech: CHE      % Moisture:  
 Analyst: CHE      Date Prep: 07.27.2020 16:30      Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	134	5.00	mg/kg	07.29.2020 18:11		1

Analytical Method: TPH by SW8015 Mod      Prep Method: SW8015P  
 Tech: DVM      % Moisture:  
 Analyst: ARM      Date Prep: 07.27.2020 15:00      Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.28.2020 09:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.28.2020 09:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.28.2020 09:10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.28.2020 09:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-130	07.28.2020 09:10		
o-Terphenyl	84-15-1	112	%	70-130	07.28.2020 09:10		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: SP4 @ Suf      Matrix: Soil      Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-015      Date Collected: 07.23.2020 00:00      Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B      Prep Method: SW5035A  
 Tech: AMF      % Moisture:  
 Analyst: AMF      Date Prep: 07.29.2020 16:30      Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.30.2020 05:29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.30.2020 05:29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.30.2020 05:29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.30.2020 05:29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.30.2020 05:29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.30.2020 05:29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.30.2020 05:29	U	1
<b>Surrogate</b>							
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.30.2020 05:29		
4-Bromofluorobenzene	460-00-4	135	%	70-130	07.30.2020 05:29	**	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP4 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-016 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>27.8</b>	5.04	mg/kg	07.29.2020 18:16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.28.2020 09:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.28.2020 09:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.28.2020 09:29	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.28.2020 09:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	116	%	70-130	07.28.2020 09:29		
o-Terphenyl	84-15-1	121	%	70-130	07.28.2020 09:29		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP4 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-016 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.30.2020 05:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.30.2020 05:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.30.2020 05:49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.30.2020 05:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.30.2020 05:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.30.2020 05:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.30.2020 05:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	143	%	70-130	07.30.2020 05:49	**	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.30.2020 05:49		



## Certificate of Analytical Results 668220

**Etech Environmental & Safety Solution, Inc, Midland, TX**  
**Sopapilla State 1H**

Sample Id: **SP5 @ Surf.**Matrix: **Soil**

Date Received: 07.27.2020 11:15

Lab Sample Id: 668220-017

Date Collected: 07.23.2020 00:00

Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **CHE**

% Moisture:

Analyst: **CHE**

Date Prep: 07.27.2020 16:30

Basis: **Wet Weight**

Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>285</b>	4.99	mg/kg	07.29.2020 18:22		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: **DVM**

% Moisture:

Analyst: **ARM**

Date Prep: 07.27.2020 15:00

Basis: **Wet Weight**

Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 09:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 09:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 09:48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 09:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	07.28.2020 09:48	
o-Terphenyl	84-15-1	110	%	70-130	07.28.2020 09:48	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP5 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-017 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.30.2020 06:10	U	1
<b>Toluene</b>	108-88-3	<b>0.00238</b>	0.00199	mg/kg	07.30.2020 06:10		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.30.2020 06:10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.30.2020 06:10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.30.2020 06:10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.30.2020 06:10	U	1
<b>Total BTEX</b>		<b>0.00238</b>	0.00199	mg/kg	07.30.2020 06:10		1
<b>Surrogate</b>							
4-Bromofluorobenzene	460-00-4	135	%	70-130	07.30.2020 06:10	**	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.30.2020 06:10		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP5 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-018 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>18.3</b>	4.97	mg/kg	07.29.2020 18:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 10:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 10:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 10:07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 10:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	07.28.2020 10:07	
o-Terphenyl	84-15-1	113	%	70-130	07.28.2020 10:07	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP5 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-018 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.30.2020 06:30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.30.2020 06:30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.30.2020 06:30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.30.2020 06:30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.30.2020 06:30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.30.2020 06:30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.30.2020 06:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	137	%	70-130	07.30.2020 06:30	**	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.30.2020 06:30		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP6 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-019 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	119	4.99	mg/kg	07.29.2020 18:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.28.2020 10:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.28.2020 10:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.28.2020 10:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.28.2020 10:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-130	07.28.2020 10:26		
o-Terphenyl	84-15-1	121	%	70-130	07.28.2020 10:26		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP6 @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-019 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3132998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.30.2020 06:50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.30.2020 06:50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.30.2020 06:50	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.30.2020 06:50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.30.2020 06:50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.30.2020 06:50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.30.2020 06:50	U	1
<b>Surrogate</b>							
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.30.2020 06:50		
4-Bromofluorobenzene	460-00-4	143	%	70-130	07.30.2020 06:50	**	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP6 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-020 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>25.0</b>	4.96	mg/kg	07.29.2020 19:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132794

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 10:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 10:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 10:45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 10:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	07.28.2020 10:45	
o-Terphenyl	84-15-1	115	%	70-130	07.28.2020 10:45	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP6 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-020 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Date Prep: 07.29.2020 16:30 Basis: Wet Weight  
 Seq Number: 3133018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.29.2020 21:40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.29.2020 21:40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.29.2020 21:40	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.29.2020 21:40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.29.2020 21:40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.29.2020 21:40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.29.2020 21:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.29.2020 21:40		
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.29.2020 21:40		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP7 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-021 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21000	253	mg/kg	07.29.2020 19:09		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 13:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 13:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 13:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 13:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	07.28.2020 13:21	
o-Terphenyl	84-15-1	116	%	70-130	07.28.2020 13:21	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP7 @ Surf.** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-021 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Date Prep: 07.29.2020 16:30 Basis: Wet Weight  
 Seq Number: 3133018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.29.2020 22:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.29.2020 22:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.29.2020 22:01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.29.2020 22:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.29.2020 22:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.29.2020 22:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.29.2020 22:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	07.29.2020 22:01		
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.29.2020 22:01		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP7 @ 1'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-022 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>200</b>	5.05	mg/kg	07.29.2020 19:14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.28.2020 14:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.28.2020 14:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.28.2020 14:46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.28.2020 14:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-130	07.28.2020 14:46		
o-Terphenyl	84-15-1	118	%	70-130	07.28.2020 14:46		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: SP7 @ 1' Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-022 Date Collected: 07.23.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Date Prep: 07.29.2020 16:30 Basis: Wet Weight  
 Seq Number: 3133018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.29.2020 22:21	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.29.2020 22:21	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.29.2020 22:21	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.29.2020 22:21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.29.2020 22:21	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.29.2020 22:21	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.29.2020 22:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	07.29.2020 22:21		
1,4-Difluorobenzene	540-36-3	91	%	70-130	07.29.2020 22:21		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SP8 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-023 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>18800</b>	250	mg/kg	07.29.2020 19:20		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 15:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 15:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 15:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 15:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	07.28.2020 15:05	
o-Terphenyl	84-15-1	105	%	70-130	07.28.2020 15:05	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP8 @ Surf.** Matrix: Soil Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-023 Date Collected: 07.23.2020 00:00 Sample Depth: 0 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Date Prep: 07.29.2020 16:30 Basis: Wet Weight  
 Seq Number: 3133018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.29.2020 22:42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.29.2020 22:42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.29.2020 22:42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.29.2020 22:42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.29.2020 22:42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.29.2020 22:42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.29.2020 22:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.29.2020 22:42		
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.29.2020 22:42		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP8 @ 4'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-024 Date Collected: 07.23.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4620	24.9	mg/kg	07.29.2020 19:25		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3132908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.28.2020 15:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.28.2020 15:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.28.2020 15:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.28.2020 15:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	07.28.2020 15:24	
o-Terphenyl	84-15-1	118	%	70-130	07.28.2020 15:24	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP8 @ 4'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-024 Date Collected: 07.23.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Date Prep: 07.29.2020 16:30 Basis: Wet Weight  
 Seq Number: 3133018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.29.2020 23:02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.29.2020 23:02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.29.2020 23:02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.29.2020 23:02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.29.2020 23:02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.29.2020 23:02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.29.2020 23:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.29.2020 23:02		
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.29.2020 23:02		

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SP8 @ 8'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-025 Date Collected: 07.23.2020 00:00 Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Date Prep: 07.27.2020 16:30 Basis: Wet Weight  
 Seq Number: 3132983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>4900</b>	49.9	mg/kg	07.29.2020 19:30		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 07.28.2020 12:00 Basis: Wet Weight  
 Seq Number: 3132908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.28.2020 15:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.28.2020 15:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.28.2020 15:43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.28.2020 15:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	07.28.2020 15:43	
o-Terphenyl	84-15-1	122	%	70-130	07.28.2020 15:43	

# Certificate of Analytical Results 668220

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SP8 @ 8'** Matrix: **Soil** Date Received: 07.27.2020 11:15  
 Lab Sample Id: 668220-025 Date Collected: 07.23.2020 00:00 Sample Depth: 8 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: KTL % Moisture:  
 Analyst: KTL Date Prep: 07.29.2020 16:30 Basis: Wet Weight  
 Seq Number: 3133018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.29.2020 23:22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.29.2020 23:22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.29.2020 23:22	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.29.2020 23:22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.29.2020 23:22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.29.2020 23:22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.29.2020 23:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.29.2020 23:22		
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.29.2020 23:22		

## 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

## Sopapilla State 1H

**Analytical Method: Chloride by EPA 300**

Seq Number:	3132747	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7708161-1-BLK	LCS Sample Id: 7708161-1-BKS				Date Prep: 07.27.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	<5.00	250	261	104	262	105	90-110	0	20
								mg/kg	07.27.2020 20:12

**Analytical Method: Chloride by EPA 300**

Seq Number:	3132983	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7708162-1-BLK	LCS Sample Id: 7708162-1-BKS				Date Prep: 07.27.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	<5.00	250	254	102	253	101	90-110	0	20
								mg/kg	07.29.2020 15:45

**Analytical Method: Chloride by EPA 300**

Seq Number:	3132747	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	668271-001	MS Sample Id: 668271-001 S				Date Prep: 07.27.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	3100	1250	4410	105	4450	108	90-110	1	20
								mg/kg	07.27.2020 20:31

**Analytical Method: Chloride by EPA 300**

Seq Number:	3132747	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	668271-011	MS Sample Id: 668271-011 S				Date Prep: 07.27.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	17.5	250	277	104	277	104	90-110	0	20
								mg/kg	07.27.2020 22:00

**Analytical Method: Chloride by EPA 300**

Seq Number:	3132983	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	668220-007	MS Sample Id: 668220-007 S				Date Prep: 07.27.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	311	249	562	101	565	102	90-110	1	20
								mg/kg	07.29.2020 16:01

**Analytical Method: Chloride by EPA 300**

Seq Number:	3132983	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	668220-017	MS Sample Id: 668220-017 S				Date Prep: 07.27.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	285	250	544	104	540	102	90-110	1	20
								mg/kg	07.29.2020 18:27

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

## Sopapilla State 1H

**Analytical Method:** TPH by SW8015 Mod

Seq Number: 3132794

MB Sample Id: 7708146-1-BLK

Matrix: Solid

LCS Sample Id: 7708146-1-BKS

Prep Method: SW8015P

Date Prep: 07.27.2020

LCSD Sample Id: 7708146-1-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	937	94	918	92	70-130	2	20	mg/kg	07.27.2020 19:39	
Diesel Range Organics (DRO)	<50.0	1000	911	91	911	91	70-130	0	20	mg/kg	07.27.2020 19:39	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	111		119			116		70-130		%	07.27.2020 19:39	
o-Terphenyl	119		113			114		70-130		%	07.27.2020 19:39	

**Analytical Method:** TPH by SW8015 Mod

Seq Number: 3132908

MB Sample Id: 7708249-1-BLK

Matrix: Solid

LCS Sample Id: 7708249-1-BKS

Prep Method: SW8015P

Date Prep: 07.28.2020

LCSD Sample Id: 7708249-1-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	876	88	851	85	70-130	3	20	mg/kg	07.28.2020 12:43	
Diesel Range Organics (DRO)	<50.0	1000	901	90	900	90	70-130	0	20	mg/kg	07.28.2020 12:43	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	115		129			125		70-130		%	07.28.2020 12:43	
o-Terphenyl	123		121			118		70-130		%	07.28.2020 12:43	

**Analytical Method:** TPH by SW8015 Mod

Seq Number: 3132794

Matrix: Solid

MB Sample Id: 7708146-1-BLK

Prep Method: SW8015P

Date Prep: 07.27.2020

Parameter	MB Result			Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0			mg/kg	07.27.2020 19:20	

**Analytical Method:** TPH by SW8015 Mod

Seq Number: 3132908

Matrix: Solid

MB Sample Id: 7708249-1-BLK

Prep Method: SW8015P

Date Prep: 07.28.2020

Parameter	MB Result			Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0			mg/kg	07.28.2020 12:24	

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



## QC Summary 668220

Etech Environmental & Safety Solution, Inc  
Sopapilla State 1H**Analytical Method:** TPH by SW8015 Mod

Prep Method: SW8015P

Seq Number: 3132794

Date Prep: 07.27.2020

Parent Sample Id: 668220-001

Matrix: Soil

MSD Sample Id: 668220-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	849	85	931	93	70-130	9	20	mg/kg	07.27.2020 20:36	
Diesel Range Organics (DRO)	214	997	1050	84	1160	95	70-130	10	20	mg/kg	07.27.2020 20:36	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag				Units	Analysis Date	
1-Chlorooctane			130			115			70-130	%	07.27.2020 20:36	
o-Terphenyl			127			129			70-130	%	07.27.2020 20:36	

**Analytical Method:** TPH by SW8015 Mod

Prep Method: SW8015P

Seq Number: 3132908

Date Prep: 07.28.2020

Parent Sample Id: 668220-021

Matrix: Soil

MSD Sample Id: 668220-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	877	88	780	78	70-130	12	20	mg/kg	07.28.2020 14:08	
Diesel Range Organics (DRO)	<49.9	998	846	85	810	81	70-130	4	20	mg/kg	07.28.2020 14:08	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag				Units	Analysis Date	
1-Chlorooctane			130			108			70-130	%	07.28.2020 14:08	
o-Terphenyl			126			100			70-130	%	07.28.2020 14:08	

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

Prep Method: SW5035A

Seq Number: 3132998

Date Prep: 07.29.2020

MB Sample Id: 7708356-1-BLK

Matrix: Solid

LCSD Sample Id: 7708356-1-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	0.118	118	0.116	116	70-130	2	35	mg/kg	07.29.2020 20:57	
Toluene	<0.00200	0.100	0.113	113	0.111	111	70-130	2	35	mg/kg	07.29.2020 20:57	
Ethylbenzene	<0.00200	0.100	0.111	111	0.110	110	70-130	1	35	mg/kg	07.29.2020 20:57	
m,p-Xylenes	<0.00400	0.200	0.218	109	0.215	108	70-130	1	35	mg/kg	07.29.2020 20:57	
o-Xylene	<0.00200	0.100	0.105	105	0.104	104	70-130	1	35	mg/kg	07.29.2020 20:57	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag				Units	Analysis Date	
1,4-Difluorobenzene	102		98			97			70-130	%	07.29.2020 20:57	
4-Bromofluorobenzene	113		106			104			70-130	%	07.29.2020 20:57	

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

## Sopapilla State 1H

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

Seq Number:	3133018	Matrix: Solid						Prep Method: SW5035A			
MB Sample Id:	7708367-1-BLK	LCS Sample Id: 7708367-1-BKS						Date Prep: 07.29.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00200	0.100	0.0988	99	0.103	103	70-130	4	35	mg/kg	07.29.2020 19:37
Toluene	<0.00200	0.100	0.0920	92	0.0998	100	70-130	8	35	mg/kg	07.29.2020 19:37
Ethylbenzene	<0.00200	0.100	0.0951	95	0.100	100	70-130	5	35	mg/kg	07.29.2020 19:37
m,p-Xylenes	<0.00400	0.200	0.195	98	0.205	103	70-130	5	35	mg/kg	07.29.2020 19:37
o-Xylene	<0.00200	0.100	0.0945	95	0.0996	100	70-130	5	35	mg/kg	07.29.2020 19:37
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	102		98			99		70-130		%	07.29.2020 19:37
4-Bromofluorobenzene	102		98			101		70-130		%	07.29.2020 19:37

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

Seq Number:	3133086	Matrix: Solid						Prep Method: SW5035A			
MB Sample Id:	7708399-1-BLK	LCS Sample Id: 7708399-1-BKS						Date Prep: 07.30.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00200	0.100	0.112	112	0.114	114	70-130	2	35	mg/kg	07.30.2020 07:52
Toluene	<0.00200	0.100	0.112	112	0.112	112	70-130	0	35	mg/kg	07.30.2020 07:52
Ethylbenzene	<0.00200	0.100	0.110	110	0.109	109	70-130	1	35	mg/kg	07.30.2020 07:52
m,p-Xylenes	<0.00400	0.200	0.218	109	0.215	108	70-130	1	35	mg/kg	07.30.2020 07:52
o-Xylene	<0.00200	0.100	0.108	108	0.106	106	70-130	2	35	mg/kg	07.30.2020 07:52
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	105		94			95		70-130		%	07.30.2020 07:52
4-Bromofluorobenzene	98		110			110		70-130		%	07.30.2020 07:52

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

Seq Number:	3132998	Matrix: Soil						Prep Method: SW5035A			
Parent Sample Id:	668220-007	MS Sample Id: 668220-007 S						Date Prep: 07.29.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00199	0.0996	0.0960	96	0.0964	97	70-130	0	35	mg/kg	07.29.2020 21:38
Toluene	<0.00199	0.0996	0.0937	94	0.0955	96	70-130	2	35	mg/kg	07.29.2020 21:38
Ethylbenzene	<0.00199	0.0996	0.0907	91	0.0929	94	70-130	2	35	mg/kg	07.29.2020 21:38
m,p-Xylenes	<0.00398	0.199	0.178	89	0.183	92	70-130	3	35	mg/kg	07.29.2020 21:38
o-Xylene	<0.00199	0.0996	0.0868	87	0.0898	91	70-130	3	35	mg/kg	07.29.2020 21:38
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene			97		97		70-130			%	07.29.2020 21:38
4-Bromofluorobenzene			106		110		70-130			%	07.29.2020 21:38

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

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

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

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


**Etech Environmental & Safety Solution, Inc**  
**Sopapilla State 1H**
**Analytical Method:** BTEX by EPA 8021B

Seq Number:	3133018	Matrix: Soil						Prep Method: SW5035A			
Parent Sample Id:	668222-001	MS Sample Id: 668222-001 S						Date Prep: 07.29.2020			
<b>Parameter</b>	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Benzene	<0.00200	0.100	0.103	103	0.0904	91	70-130	13	35	mg/kg	07.29.2020 20:17
Toluene	<0.00200	0.100	0.102	102	0.0900	90	70-130	13	35	mg/kg	07.29.2020 20:17
Ethylbenzene	<0.00200	0.100	0.101	101	0.0881	88	70-130	14	35	mg/kg	07.29.2020 20:17
m,p-Xylenes	<0.00400	0.200	0.207	104	0.181	91	70-130	13	35	mg/kg	07.29.2020 20:17
o-Xylene	<0.00200	0.100	0.0997	100	0.0878	88	70-130	13	35	mg/kg	07.29.2020 20:17
<b>Surrogate</b>			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1,4-Difluorobenzene			98		99		70-130		%	07.29.2020 20:17	
4-Bromofluorobenzene			101		101		70-130		%	07.29.2020 20:17	

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

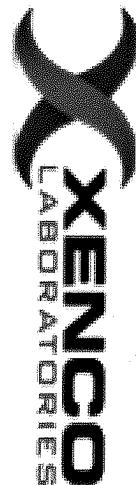
Seq Number:	3133086	Matrix: Soil						Date Prep: 07.30.2020			
Parent Sample Id:	668222-015	MS Sample Id: 668222-015 S						MSD Sample Id: 668222-015 SD			
<b>Parameter</b>	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Benzene	<0.00198	0.0992	0.0964	97	0.0727	73	70-130	28	35	mg/kg	07.30.2020 08:33
Toluene	<0.00198	0.0992	0.0919	93	0.0742	75	70-130	21	35	mg/kg	07.30.2020 08:33
Ethylbenzene	<0.00198	0.0992	0.0901	91	0.0742	75	70-130	19	35	mg/kg	07.30.2020 08:33
m,p-Xylenes	<0.00397	0.198	0.178	90	0.148	75	70-130	18	35	mg/kg	07.30.2020 08:33
o-Xylene	<0.00198	0.0992	0.0897	90	0.0756	76	70-130	17	35	mg/kg	07.30.2020 08:33
<b>Surrogate</b>			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1,4-Difluorobenzene			99		95		70-130		%	07.30.2020 08:33	
4-Bromofluorobenzene			114		113		70-130		%	07.30.2020 08:33	

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

Work Order No: W008 220

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 599-5334  
 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) 355-7900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-9800

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Page 1 of 3

Project Manager:	Joe Lowry	Bill to: (if different)	Jennifer Knowlton
Company Name:	Etech Environmental and Safety	Company Name:	COG Operating, LLC
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: <a href="mailto:PM@etechenv.com">PM@etechenv.com</a> + Client

ANALYSIS REQUEST		Preservative Codes	
Project Number:	12788	Routine:	<input checked="" type="checkbox"/>
Project Location:	Rural Lea County, NM	Rush:	<input type="checkbox"/>
Sampler's Name:	Eric Mojica	Due Date:	
PO #:			
SAMPLE RECEIPT	Temp Blank: <u>25.01</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice: <u>(yes)</u> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Temperature (°C):			Thermometer ID: <u>TB-EU</u>
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Correction Factor: <u>1.014</u>
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total Containers: <u>1</u>
Sample Custody Seals:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Sample Comments
NH @ Surf.	Soil	7/23/2020		0'	BTEX (SW 846 8021B) TPH (SW 846 8015M Ext.) CI- (E300)	
NH @ 1'	Soil	7/23/2020		1'	1/N/NO X X X	
WH @ Surf.	Soil	7/23/2020		0'	1/N/NO X X X	
WH @ 1'	Soil	7/23/2020		1'	1/N/NO X X X	
EH @ Surf.	Soil	7/23/2020		0'	1/N/NO X X X	
EH @ 1'	Soil	7/23/2020		1'	1/N/NO X X X	
SHA @ Surf.	Soil	7/23/2020		0'	1/N/NO X X X	
SHA @ 1'	Soil	7/23/2020		1'	1/N/NO X X X	
SP1 @ Surf.	Soil	7/23/2020		0'	1/N/NO X X X	
SP1 @ 1'	Soil	7/23/2020		1'	1/N/NO 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

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.



## Chain of Custody

Work Order No: 1048220

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) 794-1286  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 389-6701

Atlanta, GA (770) 449-8800

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Page 2 of 3

Project Manager:	Joel Lowry	Bill to: (if different)	Jennifer Knowlton
Company Name:	Etech Environmental and Safety	Company Name:	COG Operating, LLC
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@etechenvy.com + Client

ANALYSIS REQUEST				Preservative Codes
Project Name: Sopapilla State 1H				HNO3: HN
Project Number:	12788	Routine:	<input checked="" type="checkbox"/>	H2S04: H2
Project Location:	Rural Lea County, NM	Rush:	<input type="checkbox"/>	HCl: HL
Sampler's Name:	Eric Mojica	Due Date:		None: NO
PO #:				NaOH: Na
SAMPLE RECEIPT	7/23/2020	Temp Blank:	Yes ( <input checked="" type="checkbox"/> )	MeOH: Me
			No ( <input type="checkbox"/> )	Zn Acetate+ NaOH: Zn
Temperature (°C):		Wet Ice:	Yes ( <input checked="" type="checkbox"/> )	TAT starts the day received by the lab, if received by 4:30pm
Received Intact:	Yes ( <input checked="" type="checkbox"/> )	Thermometer ID:	No ( <input type="checkbox"/> )	
Cooler Custody Seals:	Yes ( <input checked="" type="checkbox"/> )	Correction Factor:		
Sample Custody Seals:	Yes ( <input checked="" type="checkbox"/> )	Total Containers:		

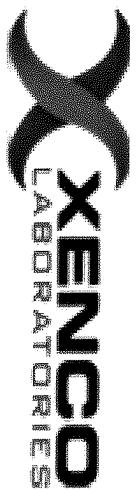
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code
SP2 @ Surf.	Soil	7/23/2020		0'	BTEX (SW 846 8021B)
SP2 @ 1'	Soil	7/23/2020		1'	TPH (SW 846 8015M Ext.)
SP3 @ Surf.	Soil	7/23/2020		0'	CI- (E300)
SP3 @ 2'	Soil	7/23/2020		2'	
SP4 @ Surf.	Soil	7/23/2020		0'	
SP4 @ 1'	Soil	7/23/2020		1'	
SP5 @ Surf.	Soil	7/23/2020		0'	
SP5 @ 1'	Soil	7/23/2020		1'	
SP6 @ Surf.	Soil	7/23/2020		0'	
SP6 @ 1'	Soil	7/23/2020		1'	

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

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**Chain of Custody**

Work Order No.: WO-0200

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 (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-9800

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Page 3 of 3

Project Manager:	Joel Lowry	Bill to: (if different)	Jennifer Knowlton
Company Name:	Etech Environmental and Safety	Company Name:	COG Operating, LLC
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@etechenv.com + Client

ANALYSIS REQUEST				Preservative Codes					
Program: US/TSPS	<input type="checkbox"/>	PRP	<input type="checkbox"/>	Brownfield	<input type="checkbox"/>	RRQ	<input type="checkbox"/>	Superfund	<input type="checkbox"/>
State of Project:									
Reporting Level	<input type="checkbox"/>	Level	<input type="checkbox"/>	PSTUS	<input type="checkbox"/>	TRF	<input type="checkbox"/>	Level	<input type="checkbox"/>
Deliverables:	EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other:				

SAMPLE RECEIPT			Temp/Blank:	Y/N	Wet Ice:	Y/N	ANALYSIS REQUEST	Preservative Codes
Temperature (°C):	<u>75.4</u>							HNO3: HN
Received Intact:	<u>NO</u>							H2S04: H2
Cooler Custody Seals:	Yes	No	<u>N/A</u>	Correction Factor:	<u>1.00</u>			HCl: HL
Sample Custody Seals:	Yes	No	<u>N/A</u>	Total Containers:				None: NO
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code			NaOH: Na
SP7 @ Surf.	Soil	7/23/2020		0'	1/NO	X		MeOH: Me
SP7 @ 1'	Soil	7/23/2020		1'	1/NO	X		Zn Acetate+ NaOH: Zn
SP8 @ Surf.	Soil	7/23/2020		0'	1/NO	X		TAT starts the day received by the lab, if received by 4:30pm
SP8 @ 4'	Soil	7/23/2020		4'	1/NO	X		
SP8 @ 8'	Soil	7/23/2020		8'	1/NO	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

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)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <u>Teresa Hernandez</u>	<u>Teresa Hernandez</u>	7/24/20	2 <u>Teresa Hernandez</u>	<u>Teresa Hernandez</u>	7/27/20
3		4			5
5		6			7



**Eurofins Xenco, LLC****Prelogin/Nonconformance Report- Sample Log-In****Client:** Etech Environmental & Safety Solution, I

Acceptable Temperature Range: 0 - 6 degC

**Date/ Time Received:** 07.27.2020 11.15.00 AM

Air and Metal samples Acceptable Range: Ambient

**Work Order #:** 668220

Temperature Measuring device used : IR-8

<b>Sample Receipt Checklist</b>	<b>Comments</b>
#1 *Temperature of cooler(s)?	2.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

**Checklist completed by:**
  
 Brianna Teel

Date: 07.27.2020

**Checklist reviewed by:**
  
 Jessica Kramer

Date: 07.27.2020

# Certificate of Analysis Summary 671367

Etech Environmental & Safety Solution, Inc, Midland, TX

## Project Name: Sopapilla State 1H

**Project Id:** 12788

**Contact:** PM

**Project Location:** Lea County, NM

**Date Received in Lab:** Mon 08.31.2020 12:55

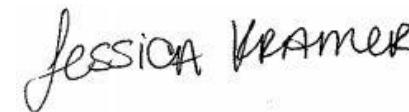
**Report Date:** 09.01.2020 13:37

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>		<b>Lab Id:</b> 671367-001	<b>Field Id:</b> Test Trench @ 9'	<b>671367-002</b>			
		<b>Depth:</b> 9- ft		<b>11- ft</b>			
		<b>Matrix:</b> SOIL		<b>SOIL</b>			
		<b>Sampled:</b> 08.27.2020 00:00		<b>08.27.2020 00:00</b>			
<b>Chloride by EPA 300</b>		<b>Extracted:</b> 08.31.2020 15:40		<b>08.31.2020 15:40</b>			
		<b>Analyzed:</b> 08.31.2020 20:03		<b>08.31.2020 20:08</b>			
		<b>Units/RL:</b> mg/kg	<b>RL</b>	<b>mg/kg</b>	<b>RL</b>		
Chloride		1050	4.99	352	25.1		

BRL - Below Reporting Limit

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



# Analytical Report 671367

for

**Etech Environmental & Safety Solution, Inc**

**Project Manager: PM**

**Sopapilla State 1H**

**12788**

**09.01.2020**

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.01.2020

Project Manager: **PM**  
**Etech Environmental & Safety Solution, Inc**  
P.O. Box 62228  
Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **671367**

**Sopapilla State 1H**  
Project Address: Lea County, NM

**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) 671367. 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. 671367 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

---

**Jessica Kramer**  
Project Manager

*A Small Business and Minority Company*

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

**Sample Cross Reference 671367****Etech Environmental & Safety Solution, Inc, Midland, TX**

Sopapilla State 1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Test Trench @ 9'	S	08.27.2020 00:00	9 ft	671367-001
Test Trench @ 11'	S	08.27.2020 00:00	11 ft	671367-002

## CASE NARRATIVE

**Client Name: Etech Environmental & Safety Solution, Inc**

**Project Name: Sopapilla State IH**

Project ID: 12788  
Work Order Number(s): 671367

Report Date: 09.01.2020  
Date Received: 08.31.2020

---

**Sample receipt non conformances and comments:**

None

**Sample receipt non conformances and comments per sample:**

None

# Certificate of Analytical Results 671367

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **Test Trench @ 9'** Matrix: Soil Date Received: 08.31.2020 12:55  
 Lab Sample Id: 671367-001 Date Collected: 08.27.2020 00:00 Sample Depth: 9 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3136033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	4.99	mg/kg	08.31.2020 20:03		1

# Certificate of Analytical Results 671367

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **Test Trench @ 11'** Matrix: Soil Date Received: 08.31.2020 12:55  
 Lab Sample Id: 671367-002 Date Collected: 08.27.2020 00:00 Sample Depth: 11 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3136033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	352	25.1	mg/kg	08.31.2020 20:08		5

## 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**  
**Sopapilla State 1H**
**Analytical Method: Chloride by EPA 300**

Seq Number:	3136033	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7710529-1-BLK	LCS Sample Id: 7710529-1-BKS				Date Prep: 08.31.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	<5.00	250	261	104	262	105	90-110	0	20
								mg/kg	08.31.2020 17:56

**Analytical Method: Chloride by EPA 300**

Seq Number:	3136033	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	671366-001	MS Sample Id: 671366-001 S				Date Prep: 08.31.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	161	250	433	109	433	109	90-110	0	20
								mg/kg	08.31.2020 18:12

**Analytical Method: Chloride by EPA 300**

Seq Number:	3136033	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	671366-002	MS Sample Id: 671366-002 S				Date Prep: 08.31.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	118	248	387	108	388	109	90-110	0	20
								mg/kg	08.31.2020 19:26

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

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

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

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



# Chain of Custody

Work Order No: W71367

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5640, 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 (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-9800

[www.xenco.com](http://www.xenco.com)

Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)		
Company Name:	ETech Environmental & Safety	Company Name:	COC	
Address:	3100 Plains Highway	Address:		
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:		
Phone:	575-396-2378	Email:	Email Results to PM@etechenv.com + Client	

ANALYSIS REQUEST			Preservative Codes
SAMPLE RECEIPT	Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Temperature (°C):	04105	Thermometer ID	
Received Intact:	No	Due Date:	
Cooler/Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:	

Number of Containers/Preservative	Code
Chloride E300	HNO3: HN
BTEX 8021	H2SO4: H2
TPH Modified Ext	HCl: HL
TPH TX1005	None: NO
	NaOH: Na
	MeOH: Me
	Zn Acetate+ NaOH: Zn

TAT starts the day received by the tab, if received by 4:30pm

Sample Comments			
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		
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 its control.			
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 items will be enforced unless previously negotiated.			

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Matt B</i>	<i>Teresa Hernandez</i>	<i>8/28/20</i>	<i>Teresa A</i>	<i>Teresa A</i>	<i>8/28/20</i>
3					
5					

ORIGIN ID:HOBA 133, 002-7880  
 ACTWGT: 19.00 LB MAN  
 CAD: 0103352/CAFE3313  
 DIMS: 18x16x13 IN  
 MAIL SERVICES ETC  
 4008 N GRIMES  
 HOBBS, NM 88240  
 UNITED STATES US

PHL: 28AUG20  
 ACTWGT: 19.00 LB MAN  
 CAD: 0103352/CAFE3313  
 DIMS: 18x16x13 IN  
 BILL RECIPIENT

ORIGIN ID:HOBA 133, 002-7880  
 ACTWGT: 27.00 LB MAN  
 CAD: 0103352/CAFE3313  
 DIMS: 18x17x13 IN  
 MAIL SERVICES ETC  
 4008 N GRIMES  
 HOBBS, NM 88240  
 UNITED STATES US

28AUG20  
 ACTWGT: 27.00 LB MAN  
 CAD: 0103352/CAFE3313  
 DIMS: 18x17x13 IN  
 BILL RECIPIENT

TO XENCO HOLD FOR PICKUP  
 FEDEX EXPRESS SHIP CENTER  
 FEDEX EXPRESS SHIP CENTER  
 3600 COUNTY ROAD 1276 SOUTH

MIDLAND TX 79711

(432) 704-5440

REF:

INV:

PO:

DEPT:



(432) 704-5440  
 INV:  
 PO:

REF:

DEPT:



J1912139822001uv

MON - 31 AUG HOLD  
 STANDARD OVERNIGHT

TRK#  
 0201 9061 5134 8536

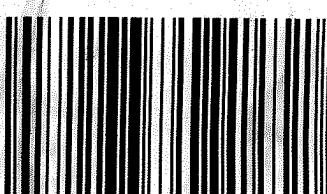
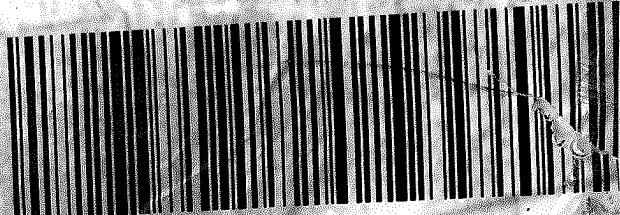
TRK#  
 0201 9061 5134 8547

41 MAFA

MAF  
 TX-US L

41 MAFA

MAFA  
 TX-US LBB



# Certificate of Analysis Summary 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

**Project Id:** 12788  
**Contact:** Joel Lowry  
**Project Location:** Rural Lea County, New Mexico

**Date Received in Lab:** Thu 09.24.2020 12:20  
**Report Date:** 09.25.2020 12:18  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> 673488-001	<b>Field Id:</b> WSW	<b>Depth:</b> ESW	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.23.2020 00:00	<b>Lab Id:</b> 673488-002	<b>Field Id:</b> SW10	<b>Depth:</b> SOIL	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.23.2020 00:00	<b>Lab Id:</b> 673488-003	<b>Field Id:</b> SSW1	<b>Depth:</b> SOIL	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.23.2020 00:00	<b>Lab Id:</b> 673488-004	<b>Field Id:</b> B13	<b>Depth:</b> SOIL	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.23.2020 00:00	<b>Lab Id:</b> 673488-005	<b>Field Id:</b> B14	<b>Depth:</b> SOIL
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 02:37	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 03:00	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 03:22	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 03:45	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 04:07	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 04:29	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 04:48	<b>Units/RL:</b> mg/kg RL		
Benzene	<0.00198	0.00198		<0.00198	0.00198		<0.00201	0.00201		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200		<0.00200	0.00200		<0.00200	0.00200
Toluene	<0.00198	0.00198		<0.00198	0.00198		<0.00201	0.00201		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200		<0.00200	0.00200		<0.00200	0.00200
Ethylbenzene	<0.00198	0.00198		<0.00198	0.00198		<0.00201	0.00201		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200		<0.00200	0.00200		<0.00200	0.00200
m,p-Xylenes	<0.00396	0.00396		<0.00396	0.00396		<0.00402	0.00402		<0.00399	0.00399		<0.00404	0.00404		<0.00399	0.00399		<0.00404	0.00404		<0.00399	0.00399
o-Xylene	<0.00198	0.00198		<0.00198	0.00198		<0.00201	0.00201		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200
Total Xylenes	<0.00198	0.00198		<0.00198	0.00198		<0.00201	0.00201		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200
Total BTEX	<0.00198	0.00198		<0.00198	0.00198		<0.00201	0.00201		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200		<0.00202	0.00202		<0.00200	0.00200
<b>Chloride by EPA 300</b>	<b>Extracted:</b> 09.24.2020 16:30	<b>Analyzed:</b> 09.24.2020 20:20	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:30	<b>Analyzed:</b> 09.24.2020 20:26	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:30	<b>Analyzed:</b> 09.24.2020 20:31	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:30	<b>Analyzed:</b> 09.24.2020 20:37	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:30	<b>Analyzed:</b> 09.24.2020 20:42	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:30	<b>Analyzed:</b> 09.24.2020 21:16	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:44	<b>Analyzed:</b> 09.24.2020 21:16	<b>Units/RL:</b> mg/kg RL		
Chloride	27.3	10.0		249	10.0		101	9.98		162	9.92		172	9.98		1260	9.90						
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.24.2020 20:54	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.24.2020 21:55	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.24.2020 22:15	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.24.2020 22:35	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.24.2020 22:55	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.24.2020 23:15	<b>Units/RL:</b> mg/kg RL	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.24.2020 23:15	<b>Units/RL:</b> mg/kg RL		
Gasoline Range Hydrocarbons (GRO)	<49.9	49.9		<49.8	49.8		<50.2	50.2		<49.9	49.9		<50.1	50.1		<49.9	49.9						
Diesel Range Organics (DRO)	<49.9	49.9		<49.8	49.8		<50.2	50.2		<49.9	49.9		<50.1	50.1		<49.9	49.9						
Motor Oil Range Hydrocarbons (MRO)	<49.9	49.9		<49.8	49.8		<50.2	50.2		<49.9	49.9		<50.1	50.1		<49.9	49.9						
Total TPH	<49.9	49.9		<49.8	49.8		<50.2	50.2		<49.9	49.9		<50.1	50.1		<49.9	49.9						

BRL - Below Reporting Limit

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



# Certificate of Analysis Summary 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

**Project Id:** 12788  
**Contact:** Joel Lowry  
**Project Location:** Rural Lea County, New Mexico

**Date Received in Lab:** Thu 09.24.2020 12:20  
**Report Date:** 09.25.2020 12:18  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> <b>Field Id:</b> <b>Depth:</b> <b>Matrix:</b> <b>Sampled:</b>	673488-007 B15	673488-008 B16	673488-009 B17	673488-010 B18	673488-011 B19	673488-012 B20					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 15:48 09.25.2020 04:52 mg/kg	09.24.2020 15:48 09.25.2020 05:14 RL	09.24.2020 15:48 09.25.2020 05:37 mg/kg	09.24.2020 15:48 09.25.2020 05:59 RL	09.24.2020 14:54 09.24.2020 21:25 mg/kg	09.24.2020 14:54 09.24.2020 21:47 RL					
Benzene	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00202	<0.00248	0.00248	<0.00201	0.00201		
Toluene	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00248	0.00248	<0.00201	0.00201		
Ethylbenzene	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00248	0.00248	<0.00201	0.00201		
m,p-Xylenes	<0.00401	0.00401	<0.00403	0.00403	<0.00400	0.00400	<0.00403	0.00403	<0.00496	0.00496	<0.00402	0.00402
o-Xylene	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00248	0.00248	<0.00201	0.00201		
Total Xylenes	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00248	0.00248	<0.00201	0.00201		
Total BTEX	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00248	0.00248	<0.00201	0.00201		
<b>Chloride by EPA 300</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 16:44 09.24.2020 21:33 mg/kg	09.24.2020 16:44 09.24.2020 21:38 RL	09.24.2020 16:44 09.24.2020 21:44 mg/kg	09.24.2020 16:44 09.24.2020 21:49 RL	09.24.2020 16:44 09.24.2020 22:06 mg/kg	09.24.2020 16:44 09.24.2020 22:12 RL	09.24.2020 16:44	09.24.2020 16:44			
Chloride	216	10.0	266	10.1	578	10.1	85.2	9.90	3840	49.6	3750	49.9
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 16:21 09.24.2020 23:35 mg/kg	09.24.2020 16:21 09.24.2020 23:56 RL	09.24.2020 16:21 09.25.2020 00:16 mg/kg	09.24.2020 16:21 09.25.2020 00:36 RL	09.24.2020 16:21 09.25.2020 01:16 mg/kg	09.24.2020 16:21 09.25.2020 01:36 RL	09.24.2020 16:21	09.24.2020 16:21			
Gasoline Range Hydrocarbons (GRO)	<50.2	50.2	<50.3	50.3	<49.9	49.9	<50.2	50.2	<50.0	50.0	<50.1	50.1
Diesel Range Organics (DRO)	<50.2	50.2	<50.3	50.3	<49.9	49.9	<50.2	50.2	<50.0	50.0	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)	<50.2	50.2	<50.3	50.3	<49.9	49.9	<50.2	50.2	<50.0	50.0	<50.1	50.1
Total TPH	<50.2	50.2	<50.3	50.3	<49.9	49.9	<50.2	50.2	<50.0	50.0	<50.1	50.1

BRL - Below Reporting Limit

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



# Certificate of Analysis Summary 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

**Project Id:** 12788  
**Contact:** Joel Lowry  
**Project Location:** Rural Lea County, New Mexico

**Date Received in Lab:** Thu 09.24.2020 12:20  
**Report Date:** 09.25.2020 12:18  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> <b>Field Id:</b> <b>Depth:</b> <b>Matrix:</b> <b>Sampled:</b>	673488-013 B21	673488-014 B22	673488-015 B23	673488-016 B24	673488-017 B25	673488-018 B26	
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 14:54 09.24.2020 22:10 mg/kg	09.24.2020 14:54 09.24.2020 22:32 RL	** *** *** 09.24.2020 22:54 mg/kg	09.24.2020 15:48 09.25.2020 07:16 mg/kg	09.24.2020 15:48 09.25.2020 07:39 mg/kg	09.24.2020 15:48 09.25.2020 08:01 mg/kg	
Benzene	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00202
Toluene	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Ethylbenzene	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
m,p-Xylenes	<0.00399	0.00399	<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398
o-Xylene	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total BTEX	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00202
<b>Chloride by EPA 300</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 16:44 09.24.2020 22:17 mg/kg	09.24.2020 16:44 09.24.2020 22:23 RL	09.24.2020 16:44 09.24.2020 22:28 mg/kg	09.24.2020 16:44 09.24.2020 22:34 mg/kg	09.24.2020 16:44 09.24.2020 22:51 mg/kg	09.24.2020 16:44 09.24.2020 23:08 mg/kg	
Chloride	1870	50.4	1880	50.1	5390	49.6	3780	49.7
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 16:21 09.25.2020 01:57 mg/kg	09.24.2020 16:21 09.25.2020 02:17 RL	09.24.2020 16:21 09.25.2020 02:37 mg/kg	09.24.2020 16:21 09.25.2020 02:57 mg/kg	09.24.2020 16:21 09.25.2020 03:18 mg/kg	09.24.2020 16:21 09.25.2020 03:38 mg/kg	
Gasoline Range Hydrocarbons (GRO)	<50.3	50.3	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)	<50.3	50.3	<50.0	50.0	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)	<50.3	50.3	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH	<50.3	50.3	<50.0	50.0	<49.9	49.9	<50.0	50.0

BRL - Below Reporting Limit

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# Certificate of Analysis Summary 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopapilla State 1H

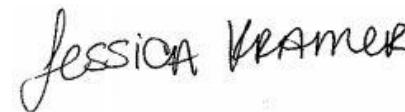
**Project Id:** 12788  
**Contact:** Joel Lowry  
**Project Location:** Rural Lea County, New Mexico

**Date Received in Lab:** Thu 09.24.2020 12:20  
**Report Date:** 09.25.2020 12:18  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>		<b>Lab Id:</b> 673488-019	<b>Field Id:</b> SW11		<b>Depth:</b> SOIL		<b>Matrix:</b> SOIL			
<b>BTEX by EPA 8021B</b>		<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 08:24		<b>Units/RL:</b> mg/kg	<b>Extracted:</b> 09.24.2020 15:48	<b>Analyzed:</b> 09.25.2020 08:46		<b>Units/RL:</b> mg/kg	<b>Extracted:</b> 09.24.2020 15:48
Benzene		<0.00199	0.00199			<0.00198	0.00198			
Toluene		<0.00199	0.00199			<0.00198	0.00198			
Ethylbenzene		<0.00199	0.00199			<0.00198	0.00198			
m,p-Xylenes		<0.00398	0.00398			<0.00396	0.00396			
o-Xylene		<0.00199	0.00199			<0.00198	0.00198			
Total Xylenes		<0.00199	0.00199			<0.00198	0.00198			
Total BTEX		<0.00199	0.00199			<0.00198	0.00198			
<b>Chloride by EPA 300</b>		<b>Extracted:</b> 09.24.2020 16:44	<b>Analyzed:</b> 09.24.2020 23:13		<b>Units/RL:</b> mg/kg	<b>Extracted:</b> 09.24.2020 16:44	<b>Analyzed:</b> 09.24.2020 23:19		<b>Units/RL:</b> mg/kg	<b>Extracted:</b> 09.24.2020 16:44
Chloride		17.2	9.94			77.7	9.96			
<b>TPH by SW8015 Mod</b>		<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.25.2020 03:58		<b>Units/RL:</b> mg/kg	<b>Extracted:</b> 09.24.2020 16:21	<b>Analyzed:</b> 09.25.2020 04:18		<b>Units/RL:</b> mg/kg	<b>Extracted:</b> 09.24.2020 16:21
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2			<49.8	49.8			
Diesel Range Organics (DRO)		<50.2	50.2			<49.8	49.8			
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2			<49.8	49.8			
Total TPH		<50.2	50.2			<49.8	49.8			

BRL - Below Reporting Limit

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# Analytical Report 673488

for

**Etech Environmental & Safety Solution, Inc**

**Project Manager: Joel Lowry**

**Sopapilla State 1H**

**12788**

**09.25.2020**

Collected By: Client

**1089 N Canal Street  
Carlsbad, NM 88220**

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

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

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



09.25.2020

Project Manager: **Joel Lowry**  
**Etech Environmental & Safety Solution, Inc**  
P.O. Box 62228  
Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **673488**

**Sopapilla State 1H**  
Project Address: Rural Lea County, New Mexico

**Joel Lowry:**

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) 673488. 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. 673488 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

---

**Jessica Kramer**  
Project Manager

*A Small Business and Minority Company*

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

**Sample Cross Reference 673488****Etech Environmental & Safety Solution, Inc, Midland, TX**

Sopapilla State 1H

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
WSW	S	09.23.2020 00:00		673488-001
ESW	S	09.23.2020 00:00		673488-002
SW10	S	09.23.2020 00:00		673488-003
SSW1	S	09.23.2020 00:00		673488-004
B13	S	09.23.2020 00:00		673488-005
B14	S	09.23.2020 00:00		673488-006
B15	S	09.23.2020 00:00		673488-007
B16	S	09.23.2020 00:00		673488-008
B17	S	09.23.2020 00:00		673488-009
B18	S	09.23.2020 00:00		673488-010
B19	S	09.23.2020 00:00		673488-011
B20	S	09.23.2020 00:00		673488-012
B21	S	09.23.2020 00:00		673488-013
B22	S	09.23.2020 00:00		673488-014
B23	S	09.24.2020 00:00		673488-015
B24	S	09.24.2020 00:00		673488-016
B25	S	09.24.2020 00:00		673488-017
B26	S	09.24.2020 00:00		673488-018
SW11	S	09.24.2020 00:00		673488-019
SW12b	S	09.24.2020 00:00		673488-020

## CASE NARRATIVE

**Client Name: Etech Environmental & Safety Solution, Inc**

**Project Name: Sopapilla State IH**

Project ID: 12788  
Work Order Number(s): 673488

Report Date: 09.25.2020  
Date Received: 09.24.2020

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**Sample receipt non conformances and comments:**

V1.001 Revision - Corrected sample ID typo

**Sample receipt non conformances and comments per sample:**

None

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **WSW** Matrix: **Soil** Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-001 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138102

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.3	10.0	mg/kg	09.24.2020 20:20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.24.2020 20:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.24.2020 20:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.24.2020 20:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.24.2020 20:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	09.24.2020 20:54	
o-Terphenyl	84-15-1	111	%	70-135	09.24.2020 20:54	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **WSW**  
 Lab Sample Id: 673488-001  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.25.2020 02:37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.25.2020 02:37	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.25.2020 02:37	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.25.2020 02:37	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.25.2020 02:37	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.25.2020 02:37	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.25.2020 02:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.25.2020 02:37		
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.25.2020 02:37		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **ESW** Matrix: **Soil** Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-002 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138102

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>249</b>	10.0	mg/kg	09.24.2020 20:26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.24.2020 21:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.24.2020 21:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.24.2020 21:55	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.24.2020 21:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	09.24.2020 21:55	
o-Terphenyl	84-15-1	111	%	70-135	09.24.2020 21:55	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: ESW      Matrix: Soil      Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-002      Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B      Prep Method: SW5035A  
 Tech: MAB      % Moisture:  
 Analyst: MAB      Date Prep: 09.24.2020 15:48      Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.25.2020 03:00	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.25.2020 03:00	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.25.2020 03:00	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.25.2020 03:00	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.25.2020 03:00	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.25.2020 03:00	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.25.2020 03:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.25.2020 03:00		
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.25.2020 03:00		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SW10** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-003 Date Collected: 09.23.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138102

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	101	9.98	mg/kg	09.24.2020 20:31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.24.2020 22:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.24.2020 22:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.24.2020 22:15	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.24.2020 22:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	128	%	70-135	09.24.2020 22:15		
o-Terphenyl	84-15-1	113	%	70-135	09.24.2020 22:15		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SW10** Matrix: **Soil** Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-003 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: **MAB** % Moisture:  
 Analyst: **MAB** Date Prep: 09.24.2020 15:48 Basis: **Wet Weight**  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.25.2020 03:22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.25.2020 03:22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.25.2020 03:22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.25.2020 03:22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.25.2020 03:22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.25.2020 03:22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.25.2020 03:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	09.25.2020 03:22		
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.25.2020 03:22		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SSW1** Matrix: **Soil** Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-004 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138102

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>162</b>	9.92	mg/kg	09.24.2020 20:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.24.2020 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.24.2020 22:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.24.2020 22:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.24.2020 22:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	09.24.2020 22:35	
o-Terphenyl	84-15-1	112	%	70-135	09.24.2020 22:35	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SSW1** Matrix: **Soil** Date Received:09.24.2020 12:20  
 Lab Sample Id: **673488-004** Date Collected:09.23.2020 00:00  
 Analytical Method: **BTEX by EPA 8021B** Prep Method: **SW5035A**  
 Tech: **MAB** % Moisture:  
 Analyst: **MAB** Date Prep: **09.24.2020 15:48** Basis: **Wet Weight**  
 Seq Number: **3138113**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.25.2020 03:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.25.2020 03:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.25.2020 03:45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.25.2020 03:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.25.2020 03:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.25.2020 03:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.25.2020 03:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.25.2020 03:45		
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.25.2020 03:45		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B13** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-005 Date Collected: 09.23.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138102

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	172	9.98	mg/kg	09.24.2020 20:42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.24.2020 22:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.24.2020 22:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.24.2020 22:55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.24.2020 22:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	120	%	70-135	09.24.2020 22:55		
o-Terphenyl	84-15-1	109	%	70-135	09.24.2020 22:55		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B13** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-005 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.25.2020 04:07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.25.2020 04:07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.25.2020 04:07	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	09.25.2020 04:07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.25.2020 04:07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.25.2020 04:07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.25.2020 04:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.25.2020 04:07		
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.25.2020 04:07		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B14** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-006 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1260	9.90	mg/kg	09.24.2020 21:16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.24.2020 23:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.24.2020 23:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.24.2020 23:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.24.2020 23:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	09.24.2020 23:15	
o-Terphenyl	84-15-1	113	%	70-135	09.24.2020 23:15	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B14**  
 Lab Sample Id: 673488-006  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.25.2020 04:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.25.2020 04:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.25.2020 04:29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.25.2020 04:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.25.2020 04:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.25.2020 04:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.25.2020 04:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.25.2020 04:29		
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.25.2020 04:29		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B15** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-007 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>216</b>	10.0	mg/kg	09.24.2020 21:33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.24.2020 23:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.24.2020 23:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.24.2020 23:35	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.24.2020 23:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	122	%	70-135	09.24.2020 23:35		
o-Terphenyl	84-15-1	111	%	70-135	09.24.2020 23:35		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B15** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-007 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.25.2020 04:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.25.2020 04:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.25.2020 04:52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.25.2020 04:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.25.2020 04:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.25.2020 04:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.25.2020 04:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.25.2020 04:52		
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.25.2020 04:52		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B16**  
 Lab Sample Id: 673488-008  
 Analytical Method: Chloride by EPA 300  
 Tech: MAB  
 Analyst: MAB  
 Seq Number: 3138103

Matrix: Soil  
 Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Prep Method: E300P  
 % Moisture:  
 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	266	10.1	mg/kg	09.24.2020 21:38		1

Analytical Method: TPH by SW8015 Mod  
 Tech: DTH  
 Analyst: DTH  
 Seq Number: 3138089

Prep Method: SW8015P  
 % Moisture:  
 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.24.2020 23:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.24.2020 23:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.24.2020 23:56	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.24.2020 23:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	117	%	70-135	09.24.2020 23:56		
o-Terphenyl	84-15-1	108	%	70-135	09.24.2020 23:56		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B16**  
 Lab Sample Id: 673488-008  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.25.2020 05:14	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.25.2020 05:14	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.25.2020 05:14	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.25.2020 05:14	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.25.2020 05:14	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.25.2020 05:14	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.25.2020 05:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.25.2020 05:14		
4-Bromofluorobenzene	460-00-4	95	%	70-130	09.25.2020 05:14		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B17** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-009 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>578</b>	10.1	mg/kg	09.24.2020 21:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 00:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 00:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 00:16	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 00:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	09.25.2020 00:16	
o-Terphenyl	84-15-1	112	%	70-135	09.25.2020 00:16	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B17**  
 Lab Sample Id: 673488-009  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.25.2020 05:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.25.2020 05:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.25.2020 05:37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.25.2020 05:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.25.2020 05:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.25.2020 05:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.25.2020 05:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.25.2020 05:37		
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.25.2020 05:37		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B18**  
 Lab Sample Id: 673488-010  
 Analytical Method: Chloride by EPA 300  
 Tech: MAB  
 Analyst: MAB  
 Seq Number: 3138103

Matrix: Soil  
 Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Prep Method: E300P  
 % Moisture:  
 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	85.2	9.90	mg/kg	09.24.2020 21:49		1

Analytical Method: TPH by SW8015 Mod  
 Tech: DTH  
 Analyst: DTH  
 Seq Number: 3138089

Prep Method: SW8015P  
 % Moisture:  
 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.25.2020 00:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.25.2020 00:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.25.2020 00:36	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.25.2020 00:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	122	%	70-135	09.25.2020 00:36		
o-Terphenyl	84-15-1	114	%	70-135	09.25.2020 00:36		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B18**  
 Lab Sample Id: 673488-010  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.25.2020 05:59	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.25.2020 05:59	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.25.2020 05:59	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.25.2020 05:59	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.25.2020 05:59	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.25.2020 05:59	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.25.2020 05:59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	90	%	70-130	09.25.2020 05:59		
4-Bromofluorobenzene	460-00-4	96	%	70-130	09.25.2020 05:59		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B19** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-011 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3840	49.6	mg/kg	09.24.2020 22:06		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 01:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 01:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 01:16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 01:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	118	%	70-135	09.25.2020 01:16		
o-Terphenyl	84-15-1	110	%	70-135	09.25.2020 01:16		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B19** Matrix: Soil Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-011 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00248	0.00248	mg/kg	09.24.2020 21:25	U	1
Toluene	108-88-3	<0.00248	0.00248	mg/kg	09.24.2020 21:25	U	1
Ethylbenzene	100-41-4	<0.00248	0.00248	mg/kg	09.24.2020 21:25	U	1
m,p-Xylenes	179601-23-1	<0.00496	0.00496	mg/kg	09.24.2020 21:25	U	1
o-Xylene	95-47-6	<0.00248	0.00248	mg/kg	09.24.2020 21:25	U	1
Total Xylenes	1330-20-7	<0.00248	0.00248	mg/kg	09.24.2020 21:25	U	1
Total BTEX		<0.00248	0.00248	mg/kg	09.24.2020 21:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.24.2020 21:25		
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.24.2020 21:25		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B20** Matrix: Soil Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-012 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3750	49.9	mg/kg	09.24.2020 22:12		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.25.2020 01:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.25.2020 01:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.25.2020 01:36	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.25.2020 01:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	130	%	70-135	09.25.2020 01:36		
o-Terphenyl	84-15-1	120	%	70-135	09.25.2020 01:36		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B20**  
 Lab Sample Id: 673488-012  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.24.2020 21:47	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.24.2020 21:47	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.24.2020 21:47	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.24.2020 21:47	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.24.2020 21:47	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.24.2020 21:47	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.24.2020 21:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.24.2020 21:47		
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.24.2020 21:47		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B21** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-013 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1870	50.4	mg/kg	09.24.2020 22:17		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.25.2020 01:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.25.2020 01:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.25.2020 01:57	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.25.2020 01:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	112	%	70-135	09.25.2020 01:57		
o-Terphenyl	84-15-1	105	%	70-135	09.25.2020 01:57		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B21**  
 Lab Sample Id: 673488-013  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 22:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 22:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 22:10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.24.2020 22:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 22:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 22:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 22:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.24.2020 22:10		
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.24.2020 22:10		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B22** Matrix: Soil Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-014 Date Collected: 09.23.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1880	50.1	mg/kg	09.24.2020 22:23		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 02:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 02:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 02:17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 02:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	09.25.2020 02:17	
o-Terphenyl	84-15-1	108	%	70-135	09.25.2020 02:17	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B22** Matrix: Soil Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-014 Date Collected: 09.23.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 22:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 22:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 22:32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.24.2020 22:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 22:32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 22:32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 22:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.24.2020 22:32		
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.24.2020 22:32		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B23** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-015 Date Collected: 09.24.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>5390</b>	49.6	mg/kg	09.24.2020 22:28		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 02:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 02:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 02:37	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 02:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	09.25.2020 02:37	
o-Terphenyl	84-15-1	110	%	70-135	09.25.2020 02:37	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B23**  
 Lab Sample Id: 673488-015  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.24.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.24.2020 22:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.24.2020 22:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.24.2020 22:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.24.2020 22:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.24.2020 22:54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.24.2020 22:54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.24.2020 22:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.24.2020 22:54		
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.24.2020 22:54		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B24** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-016 Date Collected: 09.24.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3780	49.7	mg/kg	09.24.2020 22:34		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 02:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 02:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 02:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 02:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	09.25.2020 02:57	
o-Terphenyl	84-15-1	108	%	70-135	09.25.2020 02:57	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B24** Matrix: Soil Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-016 Date Collected: 09.24.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.25.2020 07:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.25.2020 07:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.25.2020 07:16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.25.2020 07:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.25.2020 07:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.25.2020 07:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.25.2020 07:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.25.2020 07:16		
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.25.2020 07:16		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B25** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-017 Date Collected: 09.24.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>654</b>	9.96	mg/kg	09.24.2020 22:51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	09.25.2020 03:18	
o-Terphenyl	84-15-1	110	%	70-135	09.25.2020 03:18	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B25** Matrix: Soil Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-017 Date Collected: 09.24.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.25.2020 07:39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.25.2020 07:39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.25.2020 07:39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.25.2020 07:39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.25.2020 07:39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.25.2020 07:39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.25.2020 07:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.25.2020 07:39		
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.25.2020 07:39		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **B26** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-018 Date Collected: 09.24.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1490	50.3	mg/kg	09.24.2020 23:08		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.25.2020 03:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.25.2020 03:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.25.2020 03:38	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.25.2020 03:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	122	%	70-135	09.25.2020 03:38		
o-Terphenyl	84-15-1	114	%	70-135	09.25.2020 03:38		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **B26** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-018 Date Collected: 09.24.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.25.2020 08:01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.25.2020 08:01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.25.2020 08:01	U	1
m,p-Xylenes	179601-23-1	<0.00405	0.00405	mg/kg	09.25.2020 08:01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.25.2020 08:01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.25.2020 08:01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.25.2020 08:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.25.2020 08:01		
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.25.2020 08:01		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SW11** Matrix: **Soil** Date Received:09.24.2020 12:20  
 Lab Sample Id: 673488-019 Date Collected: 09.24.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.2	9.94	mg/kg	09.24.2020 23:13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.25.2020 03:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.25.2020 03:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.25.2020 03:58	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.25.2020 03:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	09.25.2020 03:58	
o-Terphenyl	84-15-1	112	%	70-135	09.25.2020 03:58	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SW11**  
 Lab Sample Id: 673488-019  
 Matrix: Soil Date Received: 09.24.2020 12:20  
 Date Collected: 09.24.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.25.2020 08:24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.25.2020 08:24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.25.2020 08:24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.25.2020 08:24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.25.2020 08:24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.25.2020 08:24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.25.2020 08:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.25.2020 08:24		
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.25.2020 08:24		

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopapilla State 1H

Sample Id: **SW12b** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-020 Date Collected: 09.24.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.7	9.96	mg/kg	09.24.2020 23:19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Basis: Wet Weight  
 Seq Number: 3138089

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.25.2020 04:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.25.2020 04:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.25.2020 04:18	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.25.2020 04:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	09.25.2020 04:18	
o-Terphenyl	84-15-1	110	%	70-135	09.25.2020 04:18	

# Certificate of Analytical Results 673488

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopapilla State 1H

Sample Id: **SW12b** Matrix: Soil Date Received: 09.24.2020 12:20  
 Lab Sample Id: 673488-020 Date Collected: 09.24.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Basis: Wet Weight  
 Seq Number: 3138113

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.25.2020 08:46	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.25.2020 08:46	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.25.2020 08:46	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.25.2020 08:46	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.25.2020 08:46	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.25.2020 08:46	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.25.2020 08:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.25.2020 08:46		
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.25.2020 08:46		

## 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

Sopapilla State 1H

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138102	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7712042-1-BLK	LCS Sample Id: 7712042-1-BKS				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	<10.0	250	256	102	256	102	90-110	0	20
								mg/kg	09.24.2020 18:00

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138103	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7712045-1-BLK	LCS Sample Id: 7712045-1-BKS				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	<10.0	250	256	102	256	102	90-110	0	20
								mg/kg	09.24.2020 21:05

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138102	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	673428-001	MS Sample Id: 673428-001 S				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	64.5	201	276	105	278	106	90-110	1	20
								mg/kg	09.24.2020 18:17

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138102	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	673428-011	MS Sample Id: 673428-011 S				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	200	200	406	103	405	103	90-110	0	20
								mg/kg	09.24.2020 19:36

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138103	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	673488-006	MS Sample Id: 673488-006 S				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	1260	199	1450	95	1450	95	90-110	0	20
								mg/kg	09.24.2020 21:22

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138103	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	673488-016	MS Sample Id: 673488-016 S				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	3780	202	4000	109	3970	94	90-110	1	20
								mg/kg	09.24.2020 22:40

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

## Sopapilla State 1H

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3138089	Matrix: Solid						Prep Method: SW8015P		
MB Sample Id:	7712040-1-BLK	LCS Sample Id: 7712040-1-BKS						Date Prep: 09.24.2020		
<b>Parameter</b>	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1040	104	999	100	70-135	4	35	mg/kg
Diesel Range Organics (DRO)	<50.0	1000	1050	105	996	100	70-135	5	35	mg/kg
<b>Surrogate</b>	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits		Units	Analysis Date
1-Chlorooctane	102		117		115		70-135		%	09.24.2020 20:13
o-Terphenyl	93		97		94		70-135		%	09.24.2020 20:13

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3138089	Matrix: Solid						Prep Method: SW8015P		
MB Sample Id:	7712040-1-BLK							Date Prep: 09.24.2020		
<b>Parameter</b>	MB Result								Units	Analysis Date
Motor Oil Range Hydrocarbons (MRO)	<50.0								mg/kg	09.24.2020 19:54

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3138089	Matrix: Soil						Prep Method: SW8015P		
Parent Sample Id:	673488-001	MS Sample Id: 673488-001 S						Date Prep: 09.24.2020		
<b>Parameter</b>	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	987	99	986	99	70-135	0	35	mg/kg
Diesel Range Organics (DRO)	<50.2	1000	967	97	953	96	70-135	1	35	mg/kg
<b>Surrogate</b>			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits		Units	Analysis Date
1-Chlorooctane			135		135		70-135		%	09.24.2020 21:14
o-Terphenyl			117		118		70-135		%	09.24.2020 21:14

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

Seq Number:	3138112	Matrix: Solid						Prep Method: SW5035A		
MB Sample Id:	7711981-1-BLK	LCS Sample Id: 7711981-1-BKS						Date Prep: 09.24.2020		
<b>Parameter</b>	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units
Benzene	<0.00200	0.100	0.115	115	0.112	112	70-130	3	35	mg/kg
Toluene	<0.00200	0.100	0.112	112	0.109	109	70-130	3	35	mg/kg
Ethylbenzene	<0.00200	0.100	0.104	104	0.101	101	71-129	3	35	mg/kg
m,p-Xylenes	<0.00400	0.200	0.209	105	0.204	102	70-135	2	35	mg/kg
o-Xylene	<0.00200	0.100	0.103	103	0.101	101	71-133	2	35	mg/kg
<b>Surrogate</b>	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits		Units	Analysis Date
1,4-Difluorobenzene	98		98		97		70-130		%	09.24.2020 12:04
4-Bromofluorobenzene	89		89		86		70-130		%	09.24.2020 12:04

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**  
**Sopapilla State 1H**
**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3138113

Matrix: Solid

Prep Method: SW5035A

MB Sample Id: 7712038-1-BLK

LCS Sample Id: 7712038-1-BKS

Date Prep: 09.24.2020

LCSD Sample Id: 7712038-1-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	0.112	112	0.121	121	70-130	8	35	mg/kg	09.25.2020 00:35	
Toluene	<0.00200	0.100	0.109	109	0.117	117	70-130	7	35	mg/kg	09.25.2020 00:35	
Ethylbenzene	<0.00200	0.100	0.101	101	0.108	108	71-129	7	35	mg/kg	09.25.2020 00:35	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.217	109	70-135	7	35	mg/kg	09.25.2020 00:35	
o-Xylene	<0.00200	0.100	0.101	101	0.108	108	71-133	7	35	mg/kg	09.25.2020 00:35	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	100		97		98		70-130			%	09.25.2020 00:35	
4-Bromofluorobenzene	88		90		85		70-130			%	09.25.2020 00:35	

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

Seq Number: 3138112

Matrix: Soil

Prep Method: SW5035A

Parent Sample Id: 673381-021

MS Sample Id: 673381-021 S

Date Prep: 09.24.2020

MSD Sample Id: 673381-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.123	122	0.117	116	70-130	5	35	mg/kg	09.24.2020 17:52	
Toluene	<0.00201	0.101	0.118	117	0.114	113	70-130	3	35	mg/kg	09.24.2020 17:52	
Ethylbenzene	<0.00201	0.101	0.109	108	0.105	104	71-129	4	35	mg/kg	09.24.2020 17:52	
m,p-Xylenes	<0.00402	0.201	0.219	109	0.212	105	70-135	3	35	mg/kg	09.24.2020 17:52	
o-Xylene	<0.00201	0.101	0.109	108	0.105	104	71-133	4	35	mg/kg	09.24.2020 17:52	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			98		98		70-130			%	09.24.2020 17:52	
4-Bromofluorobenzene			87		90		70-130			%	09.24.2020 17:52	

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

Seq Number: 3138113

Matrix: Soil

Prep Method: SW5035A

Parent Sample Id: 673488-001

MS Sample Id: 673488-001 S

Date Prep: 09.24.2020

MSD Sample Id: 673488-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.112	113	0.119	119	70-130	6	35	mg/kg	09.25.2020 01:19	
Toluene	<0.00198	0.0990	0.107	108	0.115	115	70-130	7	35	mg/kg	09.25.2020 01:19	
Ethylbenzene	<0.00198	0.0990	0.0979	99	0.106	106	71-129	8	35	mg/kg	09.25.2020 01:19	
m,p-Xylenes	<0.00396	0.198	0.197	99	0.216	108	70-135	9	35	mg/kg	09.25.2020 01:19	
o-Xylene	<0.00198	0.0990	0.0978	99	0.106	106	71-133	8	35	mg/kg	09.25.2020 01:19	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			97		97		70-130			%	09.25.2020 01:19	
4-Bromofluorobenzene			88		83		70-130			%	09.25.2020 01:19	

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

Work Order No: 10-73488

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) 704-1296  
 Hobbs, NM (575) 392-7750, Carlsbad, NM (575) 988-3199 Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-8800

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Page 1 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	Jennifer Knowlton
Company Name:	Etech Environmental and Safety	Company Name:	COG Operating, LLC
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@etechenv.com + Client

ANALYSIS REQUEST				Preservative Codes
Project Number:	12788	Routine:	<input type="checkbox"/>	HNO3: HN
Project Location	Rural Lea County, NM	Rush:	<input checked="" type="checkbox"/>	H2S04: H2
Sampler's Name:	David Robinson	Due Date:	ASAP	HCl: HL
PO #:				None: NO
SAMPLE RECEIPT	Temp Blank: <input checked="" type="radio"/> Yes <input type="radio"/> No	Wet Ice: <input checked="" type="radio"/> Yes <input type="radio"/> No		NaOH: Na
Temperature (°C):	1.6 / 1.4	Thermometer ID:	HN1M607	MeOH: Me
Received Intact:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Correction Factor:	-0.2	Zn Acetate+ NaOH: Zn
Cooler Custody Seals:	Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	Total Containers:	20	TAT starts the day received by the lab, if received by 4:30pm
Sample Custody Seals:	Yes <input type="radio"/> No <input checked="" type="radio"/> N/A			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Code	Sample Comments
WSW	Soil	9/23/2020			1/NO	X X X	
ESW	Soil	9/23/2020			1/NO	X X X	
SW10	Soil	9/23/2020			1/NO	X X X	
SSW1	Soil	9/23/2020			1/NO	X X X	
B13	Soil	9/23/2020			1/NO	X X X	
B14	Soil	9/23/2020			1/NO	X X X	
B15	Soil	9/23/2020			1/NO	X X X	
B16	Soil	9/23/2020			1/NO	X X X	
B17	Soil	9/23/2020			1/NO	X X X	
B18	Soil	9/23/2020			1/NO	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**

**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 costs 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
Johns Jr.		9/24/20 12:20 <sup>2</sup>			4
					6
5					



## Chain of Custody

Work Order No: 6073488

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 (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-8800

Atlanta, GA (770) 449-8800

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Page 2 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	Jennifer Knowlton
Company Name:	Etech Environmental and Safety	Company Name:	COG Operating, LLC
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@eetechenv.com + Client

Project Name:	Sopapilla State 1H	Turn Around	ANALYSIS REQUEST												Preservative Codes
Project Number:	12788	Routine:	<input type="checkbox"/>												HNO3: HN
Project Location	Rural Lea County, NM	Rush:	<input checked="" type="checkbox"/>												H2SO4: H2
Sampler's Name:	David Robinson	Due Date:	ASAP												HCl: HL
PO #:															None: NO
<b>SAMPLE RECEIPT</b>	Temp Blank:	Yes	No	Wet/Ice:	Yes	No									NaOH: Na
Temperature (°C):							Thermometer ID								MeOH: Me
Received In tact:	<input checked="" type="checkbox"/> <input type="checkbox"/>														Zn Acetate+ NaOH: Zn
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:											TAT starts the day received by the lab, if received by 4:30pm
Sample Custody Seals:	Yes	No	N/A	Total Containers:											

Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Number Code	Program	Comments
B19	Soil	9/23/2020			1/INO	X X X X		
B20	Soil	9/23/2020			1/INO	X X X X		
B21	Soil	9/23/2020			1/INO	X X X X		
B22	Soil	9/23/2020			1/INO	X X X X		
B23	Soil	9/24/2020			1/INO	X X X X		
B24	Soil	9/24/2020			1/INO	X X X X		
B25	Soil	9/24/2020			1/INO	X X X X		
B26	Soil	9/24/2020			1/INO	X X X X		
SW11	Soil	9/24/2020			1/INO	X X X X		
SW12b	Soil	9/24/2020			1/INO	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

**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) Received by: (Signature) Date/Time Relinquished by: (Signature) Received by: (Signature) Date/Time

1		9/24/2020 12:20		
2				
3				
4				
5				

# Certificate of Analysis Summary 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopilla South 1H

**Project Id:** 12788

**Date Received in Lab:** Wed 09.23.2020 11:13

**Contact:** PM

**Report Date:** 09.25.2020 16:37

**Project Location:** Rural Lea County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> 673276-001	<b>Field Id:</b> NW	<b>Depth:</b> EW	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.21.2020 00:00	<b>673276-002</b>	<b>673276-003</b>	<b>673276-004</b>	<b>673276-005</b>	<b>673276-006</b>
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> 09.23.2020 17:00	09.23.2020 17:00	09.24.2020 08:09	09.24.2020 08:09	09.24.2020 08:09	09.24.2020 08:09	09.24.2020 08:09	09.24.2020 08:09	09.24.2020 08:09	09.24.2020 08:09
	<b>Analyzed:</b> 09.24.2020 08:35	09.24.2020 08:56	09.24.2020 14:23	09.24.2020 14:43	09.24.2020 14:43	09.24.2020 15:04	09.24.2020 15:04	09.24.2020 15:04	09.24.2020 15:24	09.24.2020 15:24
	<b>Units/RL:</b> mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Toluene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes	<0.00399 0.00399	<0.00397 0.00397	<0.00397 0.00397	<0.00397 0.00397	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398
o-Xylene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
Total BTEX	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
<b>Chloride by EPA 300</b>	<b>Extracted:</b> 09.23.2020 17:00	09.24.2020 08:35	09.24.2020 08:35	09.24.2020 08:35	09.24.2020 08:35	09.24.2020 08:35	09.24.2020 08:35	09.24.2020 08:35	09.24.2020 08:35	09.24.2020 08:35
	<b>Analyzed:</b> 09.23.2020 20:30	09.24.2020 09:10	09.24.2020 09:26	09.24.2020 09:31	09.24.2020 09:31	09.24.2020 09:36	09.24.2020 09:42	09.24.2020 09:42	09.24.2020 09:42	09.24.2020 09:42
	<b>Units/RL:</b> mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	120 5.02	11.5 4.98	15.4 5.04	22.7 5.02	22.7 5.02	24.8 4.98	41.2 4.97	41.2 4.97	41.2 4.97	41.2 4.97
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> 09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00	09.24.2020 15:00
	<b>Analyzed:</b> 09.25.2020 02:34	09.25.2020 02:56	09.25.2020 03:18	09.25.2020 03:40	09.25.2020 03:40	09.25.2020 04:02	09.25.2020 04:24	09.25.2020 04:24	09.25.2020 04:24	09.25.2020 04:24
	<b>Units/RL:</b> mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0

BRL - Below Reporting Limit

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# Certificate of Analysis Summary 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopilla South 1H

**Project Id:** 12788

**Date Received in Lab:** Wed 09.23.2020 11:13

**Contact:** PM

**Report Date:** 09.25.2020 16:37

**Project Location:** Rural Lea County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> <b>Field Id:</b> <b>Depth:</b> <b>Matrix:</b> <b>Sampled:</b>	673276-007 FL3 @ 1' 1- ft SOIL 09.21.2020 00:00	673276-008 FL4 @ 1' 1- ft SOIL 09.21.2020 00:00	673276-009 FL5 @ 1' 1- ft SOIL 09.21.2020 00:00	673276-010 FL6 @ 1' 1- ft SOIL 09.21.2020 00:00	673276-011 FL7 @ 1' 1- ft SOIL 09.21.2020 00:00	673276-012 FL8 @ 1' 1- ft SOIL 09.21.2020 00:00					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 08:09 09.24.2020 15:45 mg/kg	09.23.2020 17:00 09.24.2020 12:26 RL	09.23.2020 17:00 09.24.2020 12:47 mg/kg	09.23.2020 17:00 09.24.2020 13:08 RL	09.23.2020 17:00 09.24.2020 13:28 mg/kg	09.23.2020 17:00 09.24.2020 13:49 RL					
Benzene	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Toluene	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Ethylbenzene	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
m,p-Xylenes	<0.00399	0.00399	<0.00398	0.00398	<0.00397	0.00397	<0.00398	0.00398	<0.00398	0.00399		
o-Xylene	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Total Xylenes	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Total BTEX	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
<b>Chloride by EPA 300</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 08:35 09.24.2020 09:57 mg/kg	09.24.2020 08:35 09.24.2020 10:03 RL	09.24.2020 08:35 09.24.2020 10:08 mg/kg	09.24.2020 08:35 09.24.2020 10:13 RL	09.24.2020 08:35 09.24.2020 10:19 mg/kg	09.24.2020 08:35 09.24.2020 10:24 RL	09.24.2020 08:35 09.24.2020 10:24 mg/kg	09.24.2020 08:35 09.24.2020 10:24 RL			
Chloride	24.8	4.95	9.61	5.03	32.7	5.02	26.6	5.05	120	4.97	163	4.97
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	09.24.2020 15:00 09.25.2020 05:08 mg/kg	09.24.2020 15:00 09.25.2020 05:30 RL	09.24.2020 15:00 09.25.2020 05:52 mg/kg	09.24.2020 15:00 09.25.2020 06:14 RL	09.24.2020 15:00 09.25.2020 06:37 mg/kg	09.24.2020 15:00 09.25.2020 06:58 RL	09.24.2020 15:00 09.25.2020 06:58 mg/kg	09.24.2020 15:00 09.25.2020 06:58 RL	09.24.2020 15:00 09.25.2020 06:58 mg/kg	09.24.2020 15:00 09.25.2020 06:58 RL	
Gasoline Range Hydrocarbons (GRO)	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0
Diesel Range Organics (DRO)	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0
Total TPH	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0

BRL - Below Reporting Limit

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# Certificate of Analysis Summary 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

### Project Name: Sopilla South 1H

**Project Id:** 12788

**Date Received in Lab:** Wed 09.23.2020 11:13

**Contact:** PM

**Report Date:** 09.25.2020 16:37

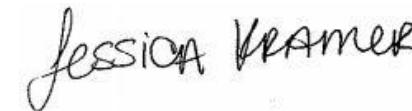
**Project Location:** Rural Lea County, NM

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>		<b>Lab Id:</b> 673276-013	<b>Field Id:</b> FL9 @ 1'	<b>Depth:</b> 1- ft	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.21.2020 00:00	<b>Lab Id:</b> 673276-014	<b>Field Id:</b> FL10 @ 1'	<b>Depth:</b> 1- ft	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.21.2020 00:00	<b>Lab Id:</b> 673276-015	<b>Field Id:</b> FL11 @ 1'	<b>Depth:</b> 1- ft	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.21.2020 00:00	<b>Lab Id:</b> 673276-016	<b>Field Id:</b> FL12 @ 1'	<b>Depth:</b> 1- ft	<b>Matrix:</b> SOIL	<b>Sampled:</b> 09.21.2020 00:00		
<b>BTEX by EPA 8021B</b>		<b>Extracted:</b> 09.23.2020 17:00					<b>Extracted:</b> 09.23.2020 17:00					<b>Extracted:</b> 09.23.2020 17:00				<b>Extracted:</b> 09.23.2020 17:00							
		<b>Analyzed:</b> 09.24.2020 14:10					<b>Analyzed:</b> 09.24.2020 14:31					<b>Analyzed:</b> 09.24.2020 14:53				<b>Analyzed:</b> 09.24.2020 15:14							
		<b>Units/RL:</b> mg/kg	RL				<b>Units/RL:</b> mg/kg	RL				<b>Units/RL:</b> mg/kg	RL			<b>Units/RL:</b> mg/kg	RL						
Benzene		<0.00200	0.00200				<0.00201	0.00201				<0.00201	0.00201			<0.00200	0.00200						
Toluene		<0.00200	0.00200				<0.00201	0.00201				<0.00201	0.00201			<0.00200	0.00200						
Ethylbenzene		<0.00200	0.00200				<0.00201	0.00201				<0.00201	0.00201			<0.00200	0.00200						
m,p-Xylenes		<0.00401	0.00401				<0.00402	0.00402				<0.00402	0.00402			<0.00399	0.00399						
o-Xylene		<0.00200	0.00200				<0.00201	0.00201				<0.00201	0.00201			<0.00200	0.00200						
Total Xylenes		<0.00200	0.00200				<0.00201	0.00201				<0.00201	0.00201			<0.00200	0.00200						
Total BTEX		<0.00200	0.00200				<0.00201	0.00201				<0.00201	0.00201			<0.00200	0.00200						
<b>Chloride by EPA 300</b>		<b>Extracted:</b> 09.24.2020 08:35					<b>Extracted:</b> 09.24.2020 08:35					<b>Extracted:</b> 09.24.2020 08:35				<b>Extracted:</b> 09.24.2020 08:35							
		<b>Analyzed:</b> 09.24.2020 10:40					<b>Analyzed:</b> 09.24.2020 10:45					<b>Analyzed:</b> 09.24.2020 11:01				<b>Analyzed:</b> 09.24.2020 11:06							
		<b>Units/RL:</b> mg/kg	RL				<b>Units/RL:</b> mg/kg	RL				<b>Units/RL:</b> mg/kg	RL			<b>Units/RL:</b> mg/kg	RL						
Chloride		93.3	5.00				255	5.04				132	5.02			222	4.97						
<b>TPH by SW8015 Mod</b>		<b>Extracted:</b> 09.24.2020 15:00					<b>Extracted:</b> 09.24.2020 15:00					<b>Extracted:</b> 09.24.2020 15:00				<b>Extracted:</b> 09.24.2020 15:00							
		<b>Analyzed:</b> 09.25.2020 07:20					<b>Analyzed:</b> 09.25.2020 07:43					<b>Analyzed:</b> 09.25.2020 08:05				<b>Analyzed:</b> 09.25.2020 08:27							
		<b>Units/RL:</b> mg/kg	RL				<b>Units/RL:</b> mg/kg	RL				<b>Units/RL:</b> mg/kg	RL			<b>Units/RL:</b> mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9				<50.0	50.0				<49.9	49.9			<49.8	49.8						
Diesel Range Organics (DRO)		<49.9	49.9				<50.0	50.0				<49.9	49.9			<49.8	49.8						
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9				<50.0	50.0				<49.9	49.9			<49.8	49.8						
Total TPH		<49.9	49.9				<50.0	50.0				<49.9	49.9			<49.8	49.8						

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# Analytical Report 673276

for

**Etech Environmental & Safety Solution, Inc**

**Project Manager: PM**

**Sopaila South 1H**

**12788**

**09.25.2020**

Collected By: Client



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

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

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

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



09.25.2020

Project Manager: **PM**  
**Etech Environmental & Safety Solution, Inc**  
P.O. Box 62228  
Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **673276**

**Sopilla South 1H**  
Project Address: Rural Lea County, NM

**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) 673276. 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. 673276 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

---

**Jessica Kramer**  
Project Manager

*A Small Business and Minority Company*

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

**Sample Cross Reference 673276****Etech Environmental & Safety Solution, Inc, Midland, TX**

Sopailla South 1H

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
NW	S	09.21.2020 00:00		673276-001
EW	S	09.21.2020 00:00		673276-002
SW	S	09.21.2020 00:00		673276-003
WW	S	09.21.2020 00:00		673276-004
FL1 @ 1'	S	09.21.2020 00:00	1 ft	673276-005
FL2 @ 1'	S	09.21.2020 00:00	1 ft	673276-006
FL3 @ 1'	S	09.21.2020 00:00	1 ft	673276-007
FL4 @ 1'	S	09.21.2020 00:00	1 ft	673276-008
FL5 @ 1'	S	09.21.2020 00:00	1 ft	673276-009
FL6 @ 1'	S	09.21.2020 00:00	1 ft	673276-010
FL7 @ 1'	S	09.21.2020 00:00	1 ft	673276-011
FL8 @ 1'	S	09.21.2020 00:00	1 ft	673276-012
FL9 @ 1'	S	09.21.2020 00:00	1 ft	673276-013
FL10 @ 1'	S	09.21.2020 00:00	1 ft	673276-014
FL11 @ 1'	S	09.21.2020 00:00	1 ft	673276-015
FL12 @ 1'	S	09.21.2020 00:00	1 ft	673276-016

## CASE NARRATIVE

**Client Name: Etech Environmental & Safety Solution, Inc**  
**Project Name: Sopaila South 1H**

Project ID: 12788  
Work Order Number(s): 673276

Report Date: 09.25.2020  
Date Received: 09.23.2020

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**Sample receipt non conformances and comments:**

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3138037 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.  
Samples affected are: 673276-001.

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: NW Matrix: Soil Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-001 Date Collected: 09.21.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Basis: Wet Weight  
 Seq Number: 3138019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	5.02	mg/kg	09.23.2020 20:30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 02:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 02:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 02:34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 02:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-130	09.25.2020 02:34		
o-Terphenyl	84-15-1	103	%	70-130	09.25.2020 02:34		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: NW Matrix: Soil Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-001 Date Collected: 09.21.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 08:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 08:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 08:35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.24.2020 08:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 08:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 08:35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 08:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	70-130	09.24.2020 08:35		
4-Bromofluorobenzene	460-00-4	132	%	70-130	09.24.2020 08:35	**	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: EW      Matrix: Soil      Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-002      Date Collected: 09.21.2020 00:00  
 Analytical Method: Chloride by EPA 300      Prep Method: E300P  
 Tech: CHE      % Moisture:  
 Analyst: CHE      Date Prep: 09.24.2020 08:35      Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.5	4.98	mg/kg	09.24.2020 09:10		1

Analytical Method: TPH by SW8015 Mod      Prep Method: SW8015P  
 Tech: DVM      % Moisture:  
 Analyst: ARM      Date Prep: 09.24.2020 15:00      Basis: Wet Weight  
 Seq Number: 3138140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 02:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 02:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 02:56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 02:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-130	09.25.2020 02:56		
o-Terphenyl	84-15-1	98	%	70-130	09.25.2020 02:56		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: EW      Matrix: Soil      Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-002      Date Collected: 09.21.2020 00:00  
 Analytical Method: BTEX by EPA 8021B      Prep Method: SW5035A  
 Tech: AMF      % Moisture:  
 Analyst: AMF      Date Prep: 09.23.2020 17:00      Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.24.2020 08:56	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.24.2020 08:56	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.24.2020 08:56	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.24.2020 08:56	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.24.2020 08:56	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.24.2020 08:56	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.24.2020 08:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	127	%	70-130	09.24.2020 08:56		
1,4-Difluorobenzene	540-36-3	89	%	70-130	09.24.2020 08:56		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: SW                                  Matrix: Soil                                  Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-003                      Date Collected: 09.21.2020 00:00  
 Analytical Method: Chloride by EPA 300                      Prep Method: E300P  
 Tech: CHE    % Moisture:  
 Analyst: CHE                                      Date Prep: 09.24.2020 08:35                      Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.4	5.04	mg/kg	09.24.2020 09:26		1

Analytical Method: TPH by SW8015 Mod                      Prep Method: SW8015P  
 Tech: DVM    % Moisture:  
 Analyst: ARM                                      Date Prep: 09.24.2020 15:00                      Basis: Wet Weight  
 Seq Number: 3138140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 03:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	09.25.2020 03:18	
o-Terphenyl	84-15-1	98	%	70-130	09.25.2020 03:18	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: SW  
 Lab Sample Id: 673276-003  
 Matrix: Soil Date Received: 09.23.2020 11:13  
 Date Collected: 09.21.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.24.2020 14:23	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.24.2020 14:23	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.24.2020 14:23	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.24.2020 14:23	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.24.2020 14:23	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.24.2020 14:23	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.24.2020 14:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	09.24.2020 14:23		
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.24.2020 14:23		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: WW Matrix: Soil Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-004 Date Collected: 09.21.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.7	5.02	mg/kg	09.24.2020 09:31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 03:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 03:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 03:40	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 03:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	92	%	70-130	09.25.2020 03:40		
o-Terphenyl	84-15-1	94	%	70-130	09.25.2020 03:40		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: WW Matrix: Soil Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-004 Date Collected: 09.21.2020 00:00  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 14:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 14:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 14:43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.24.2020 14:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 14:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 14:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 14:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.24.2020 14:43		
4-Bromofluorobenzene	460-00-4	103	%	70-130	09.24.2020 14:43		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL1 @ 1'** Matrix: Soil Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-005 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>24.8</b>	4.98	mg/kg	09.24.2020 09:36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 04:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 04:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 04:02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 04:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	98	%	70-130	09.25.2020 04:02		
o-Terphenyl	84-15-1	95	%	70-130	09.25.2020 04:02		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL1 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-005 Date Collected:09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.24.2020 15:04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.24.2020 15:04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.24.2020 15:04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.24.2020 15:04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.24.2020 15:04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.24.2020 15:04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.24.2020 15:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.24.2020 15:04		
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.24.2020 15:04		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL2 @ 1'** Matrix: **Soil** Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-006 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.2	4.97	mg/kg	09.24.2020 09:42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 04:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 04:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 04:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 04:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	09.25.2020 04:24	
o-Terphenyl	84-15-1	98	%	70-130	09.25.2020 04:24	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL2 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-006 Date Collected:09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.24.2020 15:24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.24.2020 15:24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.24.2020 15:24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.24.2020 15:24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.24.2020 15:24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.24.2020 15:24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.24.2020 15:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.24.2020 15:24		
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.24.2020 15:24		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL3 @ 1'** Matrix: **Soil** Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-007 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>24.8</b>	4.95	mg/kg	09.24.2020 09:57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 05:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 05:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 05:08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 05:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	09.25.2020 05:08	
o-Terphenyl	84-15-1	91	%	70-130	09.25.2020 05:08	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL3 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-007 Date Collected:09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 15:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 15:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 15:45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.24.2020 15:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 15:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 15:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 15:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.24.2020 15:45		
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.24.2020 15:45		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL4 @ 1'** Matrix: **Soil** Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-008 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>9.61</b>	5.03	mg/kg	09.24.2020 10:03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 05:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 05:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 05:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 05:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	09.25.2020 05:30	
o-Terphenyl	84-15-1	103	%	70-130	09.25.2020 05:30	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL4 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-008 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.24.2020 12:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.24.2020 12:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.24.2020 12:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.24.2020 12:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.24.2020 12:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.24.2020 12:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.24.2020 12:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	70-130	09.24.2020 12:26		
4-Bromofluorobenzene	460-00-4	131	%	70-130	09.24.2020 12:26	**	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL5 @ 1'** Matrix: **Soil** Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-009 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.7	5.02	mg/kg	09.24.2020 10:08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 05:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 05:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 05:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 05:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-130	09.25.2020 05:52		
o-Terphenyl	84-15-1	89	%	70-130	09.25.2020 05:52		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL5 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-009 Date Collected:09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.24.2020 12:47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.24.2020 12:47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.24.2020 12:47	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.24.2020 12:47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.24.2020 12:47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.24.2020 12:47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.24.2020 12:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	09.24.2020 12:47		
4-Bromofluorobenzene	460-00-4	126	%	70-130	09.24.2020 12:47		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL6 @ 1'** Matrix: Soil Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-010 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>26.6</b>	5.05	mg/kg	09.24.2020 10:13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.25.2020 06:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.25.2020 06:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.25.2020 06:14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.25.2020 06:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	09.25.2020 06:14	
o-Terphenyl	84-15-1	111	%	70-130	09.25.2020 06:14	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL6 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-010 Date Collected:09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.24.2020 13:08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.24.2020 13:08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.24.2020 13:08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.24.2020 13:08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.24.2020 13:08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.24.2020 13:08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.24.2020 13:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	129	%	70-130	09.24.2020 13:08		
1,4-Difluorobenzene	540-36-3	91	%	70-130	09.24.2020 13:08		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL7 @ 1'** Matrix: **Soil** Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-011 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	4.97	mg/kg	09.24.2020 10:19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 06:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 06:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 06:37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 06:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	09.25.2020 06:37	
o-Terphenyl	84-15-1	98	%	70-130	09.25.2020 06:37	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL7 @ 1'** Matrix: **Soil** Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-011 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.24.2020 13:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.24.2020 13:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.24.2020 13:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.24.2020 13:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.24.2020 13:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.24.2020 13:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.24.2020 13:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	70-130	09.24.2020 13:28		
4-Bromofluorobenzene	460-00-4	124	%	70-130	09.24.2020 13:28		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL8 @ 1'** Matrix: Soil Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-012 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	163	4.97	mg/kg	09.24.2020 10:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 06:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 06:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 06:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 06:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-130	09.25.2020 06:58		
o-Terphenyl	84-15-1	101	%	70-130	09.25.2020 06:58		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL8 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-012 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 13:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 13:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 13:49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.24.2020 13:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 13:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 13:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 13:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	70-130	09.24.2020 13:49		
1,4-Difluorobenzene	540-36-3	93	%	70-130	09.24.2020 13:49		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL9 @ 1'** Matrix: **Soil** Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-013 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.3	5.00	mg/kg	09.24.2020 10:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 07:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 07:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 07:20	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 07:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	98	%	70-130	09.25.2020 07:20		
o-Terphenyl	84-15-1	99	%	70-130	09.25.2020 07:20		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL9 @ 1'** Matrix: **Soil** Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-013 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 14:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 14:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 14:10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.24.2020 14:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 14:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 14:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 14:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.24.2020 14:10		
4-Bromofluorobenzene	460-00-4	136	%	70-130	09.24.2020 14:10	**	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL10 @ 1'** Matrix: Soil Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-014 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	255	5.04	mg/kg	09.24.2020 10:45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.25.2020 07:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.25.2020 07:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.25.2020 07:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.25.2020 07:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	09.25.2020 07:43	
o-Terphenyl	84-15-1	102	%	70-130	09.25.2020 07:43	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL10 @ 1'** Matrix: Soil Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-014 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.24.2020 14:31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.24.2020 14:31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.24.2020 14:31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.24.2020 14:31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.24.2020 14:31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.24.2020 14:31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.24.2020 14:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	09.24.2020 14:31		
4-Bromofluorobenzene	460-00-4	148	%	70-130	09.24.2020 14:31	**	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL11 @ 1'** Matrix: Soil Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-015 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	132	5.02	mg/kg	09.24.2020 11:01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.25.2020 08:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.25.2020 08:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.25.2020 08:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.25.2020 08:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-130	09.25.2020 08:05		
o-Terphenyl	84-15-1	107	%	70-130	09.25.2020 08:05		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL11 @ 1'** Matrix: Soil Date Received:09.23.2020 11:13  
 Lab Sample Id: 673276-015 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.24.2020 14:53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.24.2020 14:53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.24.2020 14:53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.24.2020 14:53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.24.2020 14:53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.24.2020 14:53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.24.2020 14:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	149	%	70-130	09.24.2020 14:53	**	
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.24.2020 14:53		

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX

Sopaila South 1H

Sample Id: **FL12 @ 1'** Matrix: Soil Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-016 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Basis: Wet Weight  
 Seq Number: 3138078

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	222	4.97	mg/kg	09.24.2020 11:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Basis: Wet Weight  
 Seq Number: 3138140 Date Prep: 09.24.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.25.2020 08:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.25.2020 08:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.25.2020 08:27	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.25.2020 08:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	09.25.2020 08:27	
o-Terphenyl	84-15-1	103	%	70-130	09.25.2020 08:27	

# Certificate of Analytical Results 673276

## Etech Environmental & Safety Solution, Inc, Midland, TX Sopaila South 1H

Sample Id: **FL12 @ 1'** Matrix: Soil Date Received: 09.23.2020 11:13  
 Lab Sample Id: 673276-016 Date Collected: 09.21.2020 00:00 Sample Depth: 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: AMF % Moisture:  
 Analyst: AMF Basis: Wet Weight  
 Seq Number: 3138037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.2020 15:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.2020 15:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.2020 15:14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.24.2020 15:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.2020 15:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.2020 15:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.2020 15:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	142	%	70-130	09.24.2020 15:14	**	
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.24.2020 15:14		

## 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

Sopaila South 1H

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138019	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7711952-1-BLK	LCS Sample Id: 7711952-1-BKS				Date Prep: 09.23.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	<5.00	250	249	100	250	100	90-110	0	20
								mg/kg	09.23.2020 17:58

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138078	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7711982-1-BLK	LCS Sample Id: 7711982-1-BKS				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	<5.00	250	246	98	243	97	90-110	1	20
								mg/kg	09.24.2020 08:59

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138019	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	672620-044	MS Sample Id: 672620-044 S				Date Prep: 09.23.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	3810	2520	6530	108	6580	110	90-110	1	20
								mg/kg	09.23.2020 18:13

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138019	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	673281-016	MS Sample Id: 673281-016 S				Date Prep: 09.23.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	9160	4960	14400	106	14300	104	90-110	1	20
								mg/kg	09.23.2020 19:27

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138078	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	673276-002	MS Sample Id: 673276-002 S				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	11.5	249	270	104	268	103	90-110	1	20
								mg/kg	09.24.2020 09:15

**Analytical Method: Chloride by EPA 300**

Seq Number:	3138078	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	673276-012	MS Sample Id: 673276-012 S				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Chloride	163	249	416	102	418	102	90-110	0	20
								mg/kg	09.24.2020 10:29

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

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

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

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



# Etech Environmental & Safety Solution, Inc

Sopaila South 1H

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3138140	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7712093-1-BLK	LCS Sample Id: 7712093-1-BKS				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	910	91	1030	103	70-130	12	20
Diesel Range Organics (DRO)	<50.0	1000	983	98	984	98	70-130	0	20
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>
1-Chlorooctane	96		90		87		70-130	%	09.24.2020 23:38
o-Terphenyl	95		79		77		70-130	%	09.24.2020 23:38

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3138140	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7712093-1-BLK	Date Prep: 09.24.2020							
<b>Parameter</b>	<b>MB Result</b>							<b>Units</b>	<b>Analysis Date</b>
Motor Oil Range Hydrocarbons (MRO)	<50.0							mg/kg	09.24.2020 23:17

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3138140	Matrix: Soil				Prep Method: SW8015P			
Parent Sample Id:	673277-101	MS Sample Id: 673277-101 S				Date Prep: 09.24.2020			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Gasoline Range Hydrocarbons (GRO)	<49.9	998	958	96	945	95	70-130	1	20
Diesel Range Organics (DRO)	<49.9	998	978	98	1000	100	70-130	2	20
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>
1-Chlorooctane			95		97		70-130	%	09.25.2020 00:44
o-Terphenyl			82		94		70-130	%	09.25.2020 00:44

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

Seq Number:	3138037	Matrix: Solid				Prep Method: SW5035A			
MB Sample Id:	7712003-1-BLK	LCS Sample Id: 7712003-1-BKS				Date Prep: 09.23.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>
Benzene	<0.00200	0.100	0.116	116	0.109	109	70-130	6	35
Toluene	<0.00200	0.100	0.115	115	0.110	110	70-130	4	35
Ethylbenzene	<0.00200	0.100	0.111	111	0.106	106	70-130	5	35
m,p-Xylenes	<0.00400	0.200	0.232	116	0.223	112	70-130	4	35
o-Xylene	<0.00200	0.100	0.117	117	0.114	114	70-130	3	35
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	80		97		93		70-130	%	09.24.2020 05:02
4-Bromofluorobenzene	119		128		127		70-130	%	09.24.2020 05:02

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

Sopaila South 1H

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

Seq Number:	3138039	Matrix: Solid						Prep Method: SW5035A			
MB Sample Id:	7712004-1-BLK	LCS Sample Id: 7712004-1-BKS						Date Prep: 09.24.2020			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00200	0.100	0.0884	88	0.0940	94	70-130	6	35	mg/kg	09.24.2020 09:02
Toluene	<0.00200	0.100	0.0844	84	0.0917	92	70-130	8	35	mg/kg	09.24.2020 09:02
Ethylbenzene	<0.00200	0.100	0.0852	85	0.0937	94	70-130	10	35	mg/kg	09.24.2020 09:02
m,p-Xylenes	<0.00400	0.200	0.167	84	0.185	93	70-130	10	35	mg/kg	09.24.2020 09:02
o-Xylene	<0.00200	0.100	0.0846	85	0.0925	93	70-130	9	35	mg/kg	09.24.2020 09:02
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	95		98		98		70-130			%	09.24.2020 09:02
4-Bromofluorobenzene	99		99		98		70-130			%	09.24.2020 09:02

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

Seq Number:	3138037	Matrix: Soil						Date Prep: 09.23.2020			
Parent Sample Id:	673276-001	MS Sample Id: 673276-001 S						MSD Sample Id: 673276-001 SD			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00198	0.0992	0.0969	98	0.0821	83	70-130	17	35	mg/kg	09.24.2020 05:44
Toluene	<0.00198	0.0992	0.0992	100	0.0822	83	70-130	19	35	mg/kg	09.24.2020 05:44
Ethylbenzene	<0.00198	0.0992	0.0909	92	0.0768	77	70-130	17	35	mg/kg	09.24.2020 05:44
m,p-Xylenes	<0.00397	0.198	0.194	98	0.162	81	70-130	18	35	mg/kg	09.24.2020 05:44
o-Xylene	<0.00198	0.0992	0.0951	96	0.0830	84	70-130	14	35	mg/kg	09.24.2020 05:44
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene			95		91		70-130			%	09.24.2020 05:44
4-Bromofluorobenzene			128		126		70-130			%	09.24.2020 05:44

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

Seq Number:	3138039	Matrix: Soil						Date Prep: 09.24.2020			
Parent Sample Id:	673267-001	MS Sample Id: 673267-001 S						MSD Sample Id: 673267-001 SD			
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00199	0.0994	0.0801	81	0.0809	82	70-130	1	35	mg/kg	09.24.2020 09:43
Toluene	0.00567	0.0994	0.0741	69	0.0743	69	70-130	0	35	mg/kg	09.24.2020 09:43
Ethylbenzene	0.0118	0.0994	0.0686	57	0.0675	56	70-130	2	35	mg/kg	09.24.2020 09:43
m,p-Xylenes	0.0226	0.199	0.129	53	0.126	52	70-130	2	35	mg/kg	09.24.2020 09:43
o-Xylene	0.0142	0.0994	0.0681	54	0.0659	52	70-130	3	35	mg/kg	09.24.2020 09:43
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene			96		96		70-130			%	09.24.2020 09:43
4-Bromofluorobenzene			104		103		70-130			%	09.24.2020 09:43

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



## Chain of Custody

Work Order No.: 673276

Houston, TX (201) 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) 794-1286  
 Hobbs, NM (505) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-8800

Project Manager:	Joel Lowry	Bill to: (if different)		
Company Name:	Etech Environmental & Safety	Company Name:	<b>CCE</b>	
Address:	3100 Plains Highway	Address:		
City, State ZIP:	Lovington, NM 88260	City, State ZIP:		
Phone:	575-396-2378	Email:	Email Results to PM@eletechenv.com + Client	
Project Name:	Sopapilla State IH	Turn Around:		
Project Number:	12788	Routine:	<input checked="" type="checkbox"/>	
Project Location:	Rural Lea County, NM	Rush:	<input type="checkbox"/>	
Sampler's Name:	Miguel Ramirez	Due Date:		
PO #:				
<b>SAMPLE RECEIPT</b>		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Thermometer ID:		
Received In tact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	100%	
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:		
<b>ANALYSIS REQUEST</b>				
Preservative Codes				
NW	Soil	Date Sampled:	Time Sampled	Depth
EW	Soil	9-21-20	-	-
SW	Soil	9-21-20	-	-
NW	Soil	9-21-20	-	-
FL1@1'	Soil	9-21-20	-	-
FL2@1'	Soil	9-21-20	1'	-
FL3@1'	Soil	9-21-20	1'	-
FL4@1'	Soil	9-21-20	1'	-
FL5@1'	Soil	9-21-20	1'	-
FL6@1'	Soil	9-21-20	1'	-
Number of Containers/Preservative Code				
Chloride E300				
BTEX 8021				
TPH Modified Ext				
TPH TX1005				
Sample Comments				
TAT starts the day received by the lab, if received by 4:30pm				
Sample Comments				
Preservative Codes				
HNO3: HN H2SO4: H2 HCl: HL None: NO NaOH: Na MeOH: Me Zn Acetate: NaOH: Zn				

Total	200.7	6010	200.8	6020:
Circle Method(s) and Metal(s) to be analyzed	BRICRA	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	
	TCLP / SPLP	6010:	BRICRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
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 items will be enforced unless previously negotiated.				1631 / 245.1 / 7470 / 7471 : HG
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)
1		9-22-20 3:20		Date/Time
2				4
3				5
4				6

**XENCO****Chain of Custody**Work Order No: 673276

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300, San Antonio, TX (210) 599-3334  
 Midland, TX (432) 704-5640, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1286  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 736-0747, Delray Beach, FL (561) 889-6701  
 Atlanta, GA (770) 449-8800

Project Manager:	Joel Lowry
Company Name:	Etech Environmental & Safety
Address:	3100 Plains Highway
City, State ZIP:	Lovington, NM 88260
Phone:	575-396-2378

Bill to: (if different)	<u>COG</u>
Company Name:	<u>COG</u>
Address:	
City, State ZIP:	

Project Name:	<u>Sopapilla State IH</u>	Turn Around
Project Number:	<u>12788</u>	Routine: <input checked="" type="checkbox"/>
Project Location:	<u>Pinal Lee County, NM</u>	Rush: <input type="checkbox"/>
Sampler's Name:	<u>Miguel Ramirez</u>	Due Date:
PO #:		

Reporting Level: <input type="checkbox"/> Level <input checked="" type="checkbox"/> - PST/USC <input type="checkbox"/> TRR <input type="checkbox"/> Level <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/> ADA/PR <input type="checkbox"/> Other: _____

ANALYSIS REQUEST				

Preservative Codes
HNO3: HN
H2SO4: H2
HCl: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:30pm

SAMPLE RECEIPT	Temp Blank: <u>160.0</u>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Wet Ice: <input checked="" type="checkbox"/> Yes: <input type="checkbox"/>	Thermometer: <u>TPH</u>
Received Intact:	<u>Yes</u>			
Cooler Custody Seals:	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A		Correction Factor: <u>1.05</u>	
Sample Custody Seats:	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A	Total Containers: <u>1</u>		

Number of Containers/Preservative
Chloride E300
BTEX 8021
TPH Modified Ext
TPH TX1005

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number Code
FL 7Q11	Soil	9-21-20	1'	1'	X X X X
FL 8Q11	Soil	9-21-20	1'	1'	X X X X
FL 9Q11	Soil	9-21-20	1'	1'	X X X X
FL 10Q11	Soil	9-21-20	1'	1'	X X X X
FL 11Q11	Soil	9-21-20	1'	1'	X X X X
FL 12Q11	Soil	9-21-20	1'	1'	X X X X

Sample Comments
-----------------

Total 200.7 / 6020: <u>200.8 / 6020:</u>	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

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Relinquished by: (Signature) J. M. Ramirez Received by: (Signature) CC Date/Time 9-28-0320 Relinquished by: (Signature) CC Received by: (Signature) J. M. Ramirez Date/Time 9/23

Received by: (Signature) CC Date/Time 9-28-0320 Relinquished by: (Signature) CC Received by: (Signature) J. M. Ramirez Date/Time 9/23



**Eurofins Xenco, LLC****Prelogin/Nonconformance Report- Sample Log-In****Client:** Etech Environmental & Safety Solution, I

Acceptable Temperature Range: 0 - 6 degC

**Date/ Time Received:** 09.23.2020 12.00.00 AM

Air and Metal samples Acceptable Range: Ambient

**Work Order #:** 673276

Temperature Measuring device used : IR-8

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

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

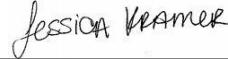
Analyst:

PH Device/Lot#:

**Checklist completed by:**


Brianna Teel  
Brianna Teel

Date: 09.23.2020

**Checklist reviewed by:**


Jessica Kramer  
Jessica Kramer

Date: 09.23.2020

## **Appendix D**

### **Photographic Log**

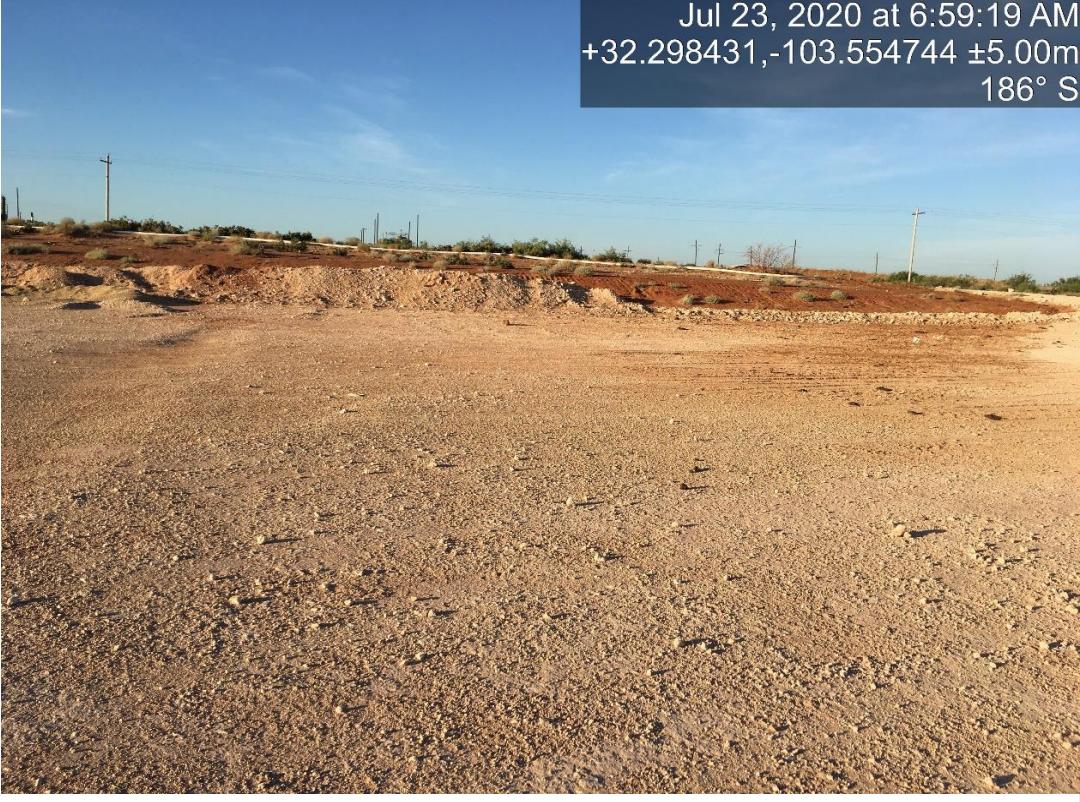
## Photographic Log

<b>Photo Number:</b> 1		Jul 23, 2020 at 11:22:38 AM +32.298052,-103.555003 ±5.00m 18° N
<b>Photo Description:</b>     Release area in pasture overlooking pad.		

<b>Photo Number:</b> 2		Jul 23, 2020 at 11:22:19 AM +32.298152,-103.555057 ±5.00m 110° E
<b>Photo Description:</b>     Release area on access road and adjacent pasture.		

## Photographic Log

<b>Photo Number:</b> 3		Jul 23, 2020 at 11:21:27 AM +32.298365,-103.554811 ±5.00m 187° S
<b>Photo Direction:</b> South		
<b>Photo Description:</b>     Release area on pad.		

<b>Photo Number:</b> 4		Jul 23, 2020 at 6:59:19 AM +32.298431,-103.554744 ±5.00m 186° S
<b>Photo Direction:</b> South		
<b>Photo Description:</b>     Release area on pad.		

## Photographic Log

<b>Photo Number:</b> 5	
<b>Photo Direction:</b> Northwest	
<b>Photo Description:</b>	
Norther excavation area (1' Scrape).	

<b>Photo Number:</b> 6	
<b>Photo Direction:</b> South	
<b>Photo Description:</b>	
Southern excavated area (4' depth).	

## Photographic Log

<b>Photo Number:</b> 7	
<b>Photo Direction:</b> South	
<b>Photo Description:</b>	
View of excavation from the north looking south.	

<b>Photo Number:</b> 8	
<b>Photo Direction:</b> Southeast	
<b>Photo Description:</b>	
Edge of excavation adjacent to access road.	

## Photographic Log

<b>Photo Number:</b> 9	
<b>Photo Direction:</b> West	
<b>Photo Description:</b>	
Remediated area adjacent to access road.	<b>September 29, 2020 at 9:58 AM</b> <b>+32.298096,-103.554795</b> 

<b>Photo Number:</b> 10	
<b>Photo Direction:</b> North	
<b>Photo Description:</b>	
Remediated pad area after backfill and grading.	<b>September 29, 2020 at 9:58 AM</b> <b>+32.298038,-103.555012</b> 

## Photographic Log

<b>Photo Number:</b> 11	<b>Photo Direction:</b> Northwest	<b>Photo Description:</b>  Remediated pasture area after backfill and grading.
		

<b>Photo Number:</b> 12	<b>Photo Direction:</b> North	<b>Photo Description:</b>  Remediated area after backfill and grading.
		

Incident ID	nRM2016949793
District RP	
Facility ID	
Application ID	

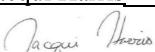
## Closure

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

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

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

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

Printed Name: Jacqui Harris Title: Senior HSE Coordinator  
Signature:   
email: jharris2@concho.com Date: 10.20.20  
Telephone: 575-496-0780

**OCD Only**

Received by: Chad Hensley Date: 2/12/2021

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

Closure Approved by:  Date: 2/12/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 10797

**CONDITIONS OF APPROVAL**

Operator: COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	OGRID: 229137	Action Number: 10797	Action Type: C-141
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OCD Reviewer chensley	Condition None
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