

Incident ID	NRM2000635221
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: Carmen E. Pitt Title: Senior HSE Specialist  
Signature:  Date: 9/29/2020  
email: cpitt@grizzlyenergyllc.com Telephone: 432-248-8145

### OCD Only

Received by: Cristina Eads Date: 09/29/2020

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: 11/24/2020  
Printed Name: Cristina Eads Title: Environmental Specialist

## Remediation Summary and Soil Closure Request

### Grizzly Energy, LLC Cole State #10

Lea County, New Mexico  
Unit Letter E, Section 16, Township 22 South, Range 37 East  
Latitude 32.39287 North, Longitude 103.17297 West  
NMOCD Reference No. nRM2000635221

Prepared By:

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



Lance Crenshaw



Joel W. Lowry



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## 1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Grizzly Energy, LLC, has prepared this Report for the Release Site known as the Cole State #10. Details of the release are summarized below:

### Location of Release Source

Latitude: 32.39287 Longitude: -103.17297

Provided GPS are in WGS84 format.

Site Name:	Cole State #10	Site Type:	Flowline
Date Release Discovered:	11/4/2019	API # (if applicable):	30-025-22163

Unit Letter	Section	Township	Range	County
E	16	22S	37E	Lea

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

### Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 0.6	Volume Recovered (bbls) 0.25
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 22	Volume Recovered (bbls) 0.25
	Is the concentration of dissolved chloride 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 attributed to a line plugging off, pressuring up and causing the rollergrip clamp to fail.

### Initial Response

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



## 2.0 SITE CHARACTERIZATION

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

What is the shallowest depth to groundwater beneath the area affected by the release?	~ 75 Ft.	
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
Are the lateral extents of the release within 300 feet of any 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 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 Ft.	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 INITIAL SITE ASSESSMENT

On November 5 and 8, 2019, Etech conducted an initial release assessment at the Site. During the initial release assessment, a series of hand-augered soil bores (V1 through V5) 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. A "Site & Sample Location Map" is provided as Figure 3. Field data and soil profile logs, if applicable, are provided as Appendix B.

Based on field observations and field test data, thirty-two (32) delineation soil samples (V1 @ 3.5'-R, V2 @ Surf., V3 @ Surf., V4 @ 1', V5 @ Surf., V5 @ 1.5'-R, NH1 @ Surf., NH1 @ 1', EH1 @ Surf., EH1 @ 1', EH2 @ Surf., EH2 @ 1', EH3 @ Surf., EH3 @ 1', EH4 @ Surf., EH4 @ 1', EH5 @ Surf., EH5 @ 1', SH1 @ Surf., SH1 @ 1', SH2 @ Surf., SH2 @ 1', WH1 @ Surf., WH1 @ 1', WH2 @ Surf., WH2 @ 1', WH3 @ Surf., WH3 @ 1', WH4 @ Surf., WH4 @ 1', WH5 @ Surf. and WH5 @ 1') were submitted to the laboratory for analysis of BTEX, TPH and chloride. Based on laboratory analytical results, the horizontal extent of affected soil impacted above the NMOCD Closure Criteria was adequately defined. Additional vertical delineation would be required in the areas characterized by sample points V1 through V5. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

On December 6, 2019, Etech revisited the Site. During the site visit, a series of hand-augered soil bores were advanced within the release margins in the areas characterized by sample points V3 through V5 an effort to determine the vertical extent of soil impacts. During the advancement of the hand-augered soil bores, three (3) delineation soil samples (V3 @ 4', V4 @ 3' and V5 @ 3') were collected and submitted to the laboratory for analysis of BTEX, TPH and/or chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples with the exception of soil sample V4 @ 3', which exhibited a TPH concentration of 554.4 mg/kg.

On December 23, 2019, Etech revisited the Site in an effort to further investigate impacted soil in the areas characterized by sample points V1, V2, V4 and V5. During the site visit, a series of hand-augered soil bores were advanced within the release margins in the areas characterized by sample points V1, V2, V4 and V5 in an effort to determine the vertical extent of soil impacts. During the advancement of the hand-augered soil bores, four (4) delineation soil samples (V1 @ 4', V2 @ 4', V4 @ 4' and V5 @ 4') were collected and submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples with the exception of soil samples V1 @ 4' and V4 @ 4', which exhibited TPH concentrations of 7,478 mg/kg and 8,521 mg/kg, respectively. Collection of additional samples from sample points V1 and V4 was precluded due to the presence of a resilient rock layer.

On February 19, 2020, Etech revisited the Site in an effort to further investigate impacted soil in the areas characterized by sample points V1 and V4. During the site visit, a series of test trenches were advanced within the release margins in the areas characterized by sample points V1 and V4 in an effort to determine the vertical extent of soil impacts. During the advancement of the test trenches, four (4) delineation soil samples (V1 @ 5', V1 @ 6', V4 @ 8' and V4 @ 9') were collected and submitted to the laboratory for analysis of TPH. Laboratory analytical results indicated TPH concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

Based on laboratory analytical results, the horizontal extent of affected soil impacted above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was adequately defined and soil was not affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard beyond 5 Ft. bgs in the area characterized by sample point V1, 4 Ft. bgs in the areas characterized by sample points V2, V3 and V5, and 8 Ft. bgs in the area characterized by sample point V4. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

## 5.0 PROPOSED REMEDIATION PLAN

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

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard in the area characterized by sample point V1 to an estimated depth of 5 Ft. bgs, the areas characterized by sample points V2, V3 and V5 to an estimated depth of 4 Ft. bgs, and the area characterized by sample point V4 to an estimated depth of 8 Ft bgs..
- The floor and sidewalls of the excavated area will be advanced until laboratory analytical results indicated impacted soil affected above the NMOCD Closure Criteria has been removed.
- Excavated material will be temporarily stockpiled on-site, then transported to an NMOCD-approved disposal facility.
- Upon excavating impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard, collect the requisite excavation confirmation soil samples.
- Upon receiving laboratory analytical results from excavation confirmation soil samples, backfill the excavated area with locally sourced, non-impacted "like" material.
- Excavation backfill will be contoured to match the surrounding topography.
- Upon completion of remediation activities, prepare a Remediation Summary and Site Closure Request detailing remediation activities and the results of confirmation soil samples.

## 6.0 REGULATORY APPROVALS AND STIPULATIONS

On March 6th, 2020, a Site Assessment Report and Proposed Remediation Workplan was submitted to the NMOCD proposing remediation activities designed to advance the Site toward regulatory closure. The Site Assessment Report and Proposed Remediation Workplan was subsequently approved.

Please reference the Site Assessment Report and Proposed Remediation Workplan for additional details regarding site characterization and proposed remediation activities.

## 7.0 REMEDIATION ACTIVITIES SUMMARY

On August 24, 2020, remediation activities commenced at the Site. In accordance with the approved workplan, impacted soil affected above the NMOCD Closure Criteria 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 suggesting BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

On August 24, 2020, Etech collected six (6) excavation confirmation soil samples (NWW1, NEW1, SWW1, FL1 @ 4', FL2 @ 4', and FL3 @ 4'). 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 with the exceptions of SWW1 and FL3 @ 4', which exhibited GRO+DRO concentrations of 1,260 mg/kg and 1,810 mg/kg, respectively.

On August 25, 2020, Etech collected nine (9) excavation confirmation soil samples (FL4 @4', FL5@4', FL6 @4', SWW #2, NEW #2, FL7 @ 4', FL8 @ 4', FL9 @ 4', and FL10 @ 4'). 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 with the exception of FL4 @ 4', which exhibited a GRO+DRO concentration of 1,040 mg/kg.

On August 26, 2020, Etech collected eight (8) excavation confirmation soil samples (FL11 @ 4', FL12 @ 4', FL13 @4', FL14 @4', FL15 @4', SWW3, NEW3, and SEW1). 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 with the exceptions of FL11 @ 4', FL12 @ 4', and FL15 @ 4', which exhibited GRO+DRO concentrations of 1,250 mg/kg, 1,980 mg/kg, and 1,130 mg/kg, respectively.

On September 9, 2020, excavation activities resumed at the Site. Impacted soil in the areas characterized by sample points NWW1, SWW1, FL3 @ 4', FL4 @ 4', FL11 @ 4', FL12 @ 4', and FL15 @ 4' was excavated and transported to an NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected seven (7) additional excavation confirmation soil samples (NWW1B, SWW1B, FL3 @5', FL4 @5', FL11 @5', FL12 @5', and FL15 @5') and submitted them to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On September 10, 2020, Etech collected seven (7) excavation confirmation soil samples (FL 16 @ 5', FL 17 @ 5', FL 18 @ 5', FL 19 @ 5', FL 20 @ 5', SWW 4, and NEW 4). 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 as Appendix C.

The final dimensions of the excavated area were 240 Ft. in length, 5 to 100 Ft. in width and ranged from 4 to 5 Ft. in depth. During the course of remediation activities approximately 640 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

## **8.0 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.

## **9.0 SOIL CLOSURE REQUEST**

Remediation activities were conducted in accordance with an approved Workplan. 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 Grizzly Energy, LLC provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the Cole State #10 Site.

## **10.0      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 Grizzly Energy, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or Grizzly Energy, LLC.

## **11.0      DISTRIBUTION**

***Grizzly Energy, LLC***

*4001 Penbrook*

*Suite 201*

*Odessa, TX 79762*

***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*

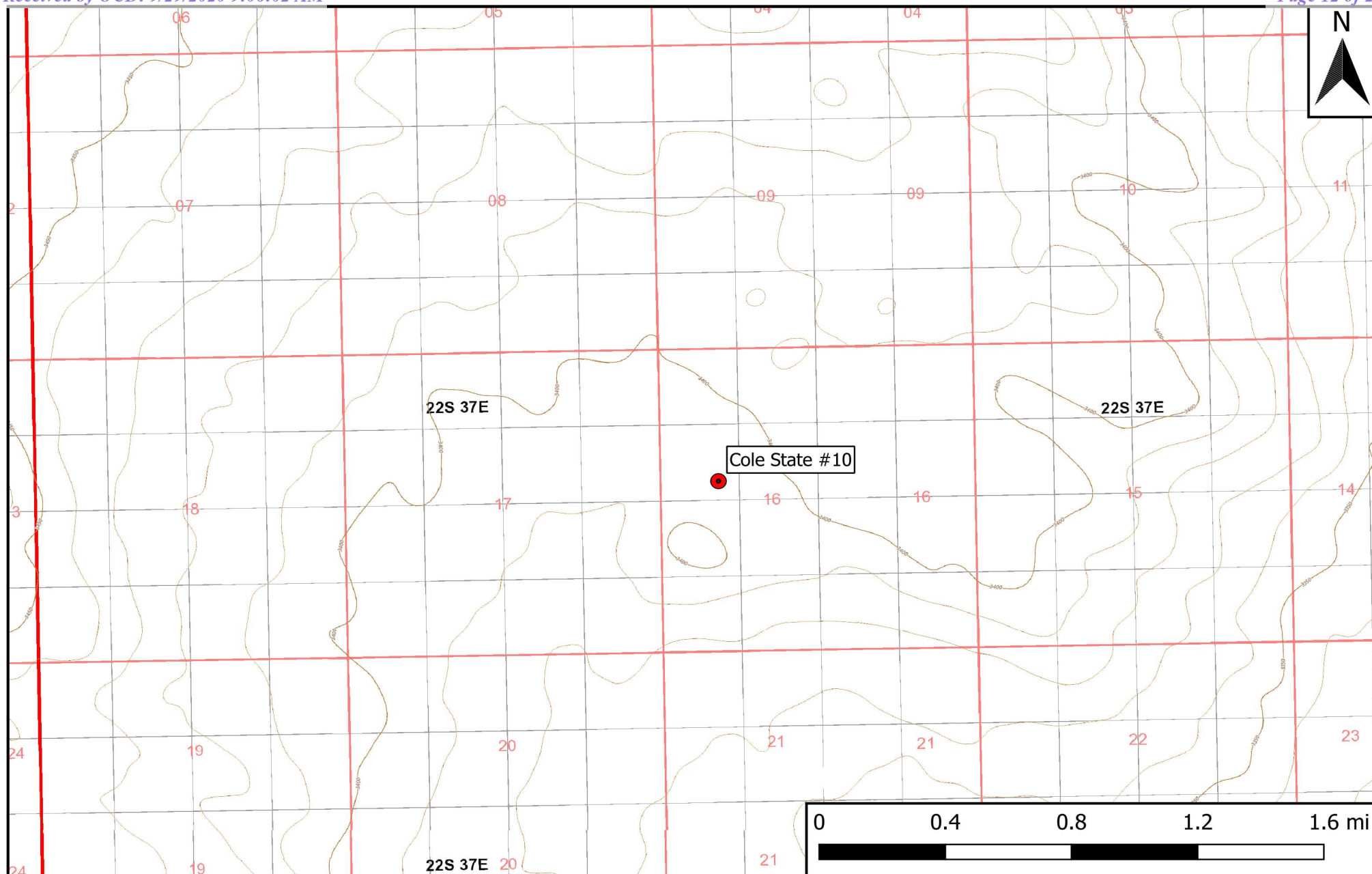
*Suite 117*

*Hobbs, NM 88240*

*(Electronic Submission)*

## **Figure 1**

### **Topographic Map**



## Legend

 Site Location

## Figure 1

Topographic Map  
Grizzly Energy, LLC  
Cole State #10  
GPS: 32.39277, -103.17335  
Lea County



Drafted: mag

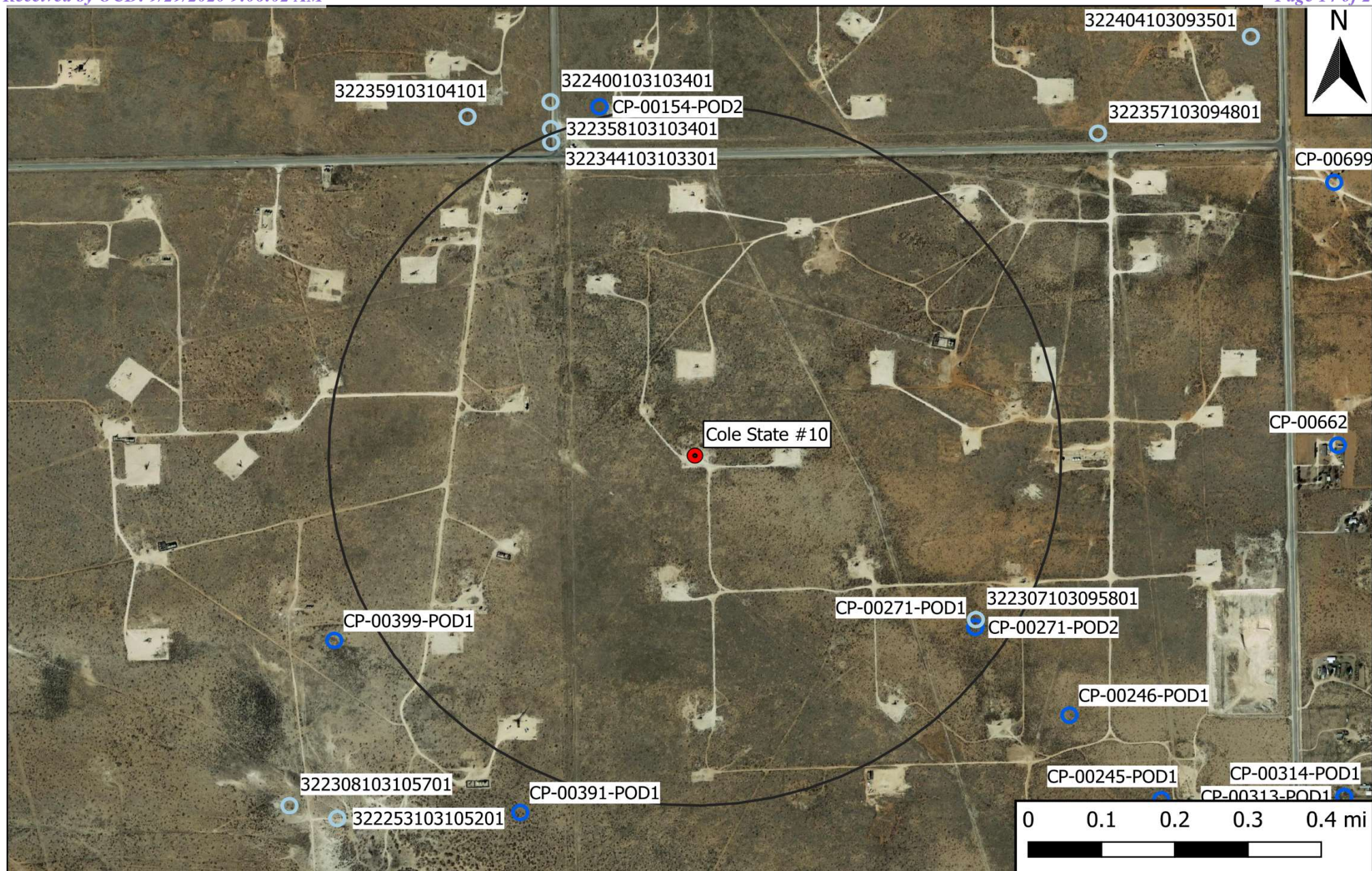
Checked: jwl

Date: 11/6/19



## **Figure 2**

### **Aerial Proximity Map**



## Legend

- Site Location
- Well - USGS
- Well - NMOSE
- Potash Mine Workings
- 0.5 Mi Radius
- 1% Annual Flood Chance
- Surface Water
- High Karst
- Medium Karst

**Figure 2**  
 Aerial Map  
 Grizzly Energy, LLC  
 Cole State #10  
 GPS: 32.39277, -103.17335  
 Lea County



Drafted: mag

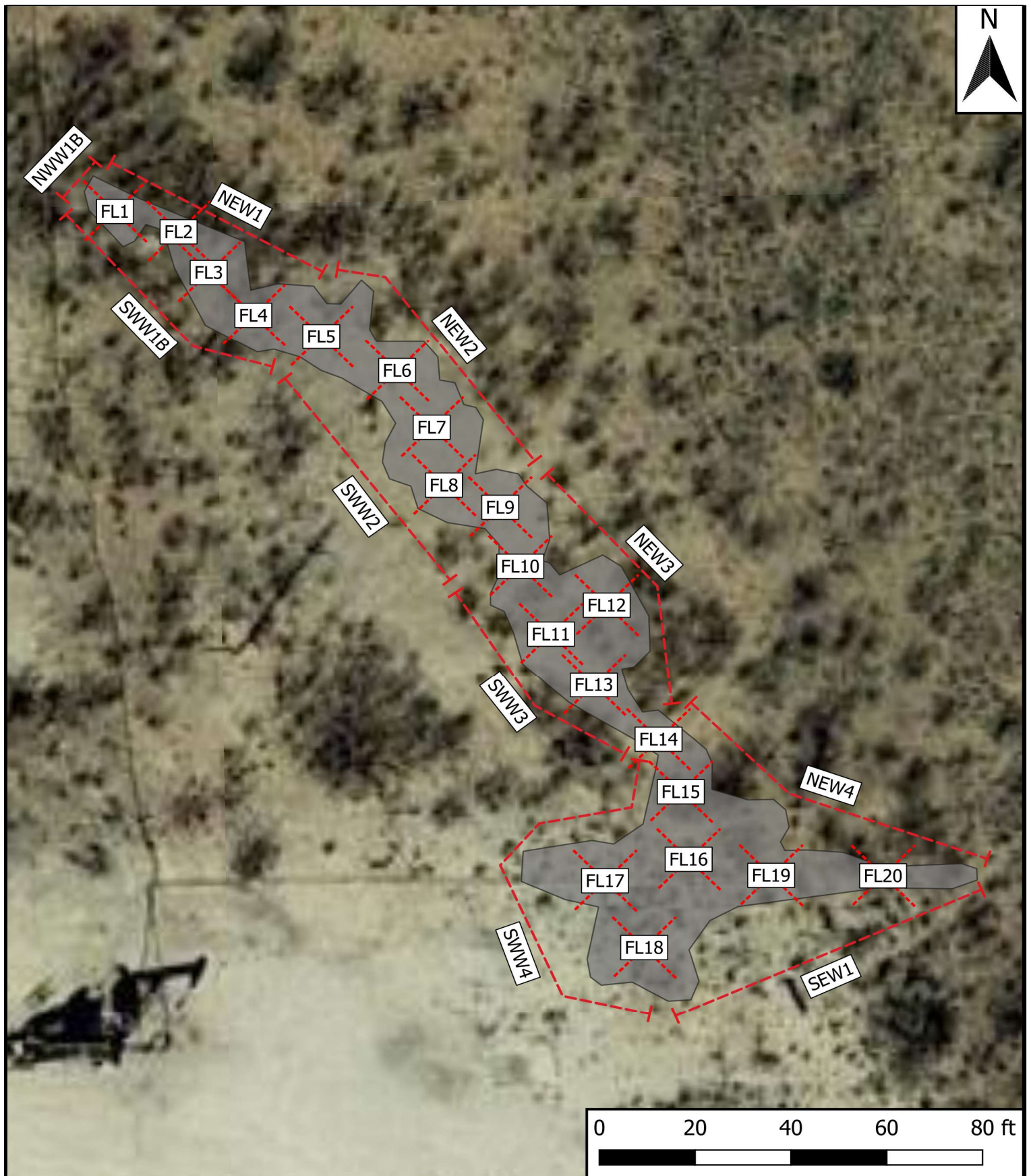
Checked: jwl

Date: 11/6/19

### **Figure 3**

## **Site and Sample Location Map**





## Legend

-  Floor Sample
-  Wall Sample
-  Excavation

## Figure 3

Site and Sample Location Map  
Grizzly Energy, LLC  
Cole State #10  
GPS: 32.39287, -103.17297  
Lea County



Drafted: mag

Checked: jwl

Date: 9/23/20

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

**TABLE 1**  
**CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL**  
**Grizzly Energy, LLC**  
**Cole State #10**  
**NMOCD Ref. #: nRM2000635221**

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)	Chloride (mg/kg)
V 2 @ SURFACE	11/5/2019	Surf	Excavated	1.99	<b>187</b>	1,870	4,980	<b>6,850</b>	434	<b>7,280</b>	1,600
V 3 @ SURFACE	11/5/2019	Surf	Excavated	5.49	<b>445</b>	11,200	45,000	<b>56,200</b>	6,930	<b>63,100</b>	1,200
V 4 @ 1'	11/5/2019	1'	Excavated	0.349	<b>89.7</b>	846	2,880	<b>3,730</b>	213	<b>3,940</b>	464
V 5 @ SURFACE	11/5/2019	Surf	Excavated	5.15	<b>767</b>	15,400	54,200	<b>69,600</b>	8,010	<b>77,600</b>	<16.0
SH 1 @ SURFACE	11/5/2019	Surf	In-Situ	<0.050	0.543	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
SH 1 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SH 2 @ SURFACE	11/5/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SH 2 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
EH 1 @ SURFACE	11/5/2019	Surf	In-Situ	<0.200	<1.20	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH 1 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH 1 @ SURFACE	11/5/2019	Surf	In-Situ	<0.050	<0.300	<10.0	19.7	19.7	<10.0	19.7	<16.0
WH 1 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	10.5	10.5	<10.0	10.5	<16.0
V 1 @ 3.5' -R	11/8/2019	3.5'	In-Situ	<0.050	3.08	51.5	612	664	55.2	719	1,010
V 5 @ 1.5' - R	11/8/2019	1.5'	In-Situ	<0.050	0.319	<10.0	190	190	<10.0	190	32.0
WH 2 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH 2 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	496
WH 3 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH 3 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
WH 4 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH 4 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
WH 5 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH 5 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH 2 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH 2 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH 3 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
EH 3 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
EH 4 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
EH 4 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH 5 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH 5 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
NH 1 @ SURFACE	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
NH 1 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
V 3 @ 4'	12/6/2019	4'	In-Situ	<0.050	0.917	35.1	758	793	106	899	1,150
V 4 @ 3'	12/6/2019	3'	In-Situ	<0.050	<0.300	<10.0	468	468	86.4	554	64.0
V5 @ 3'	12/6/2020	3'	Excavated	-	-	-	-	-	-	-	96.0
V 1 @ 4'	12/23/2019	4'	Excavated	<0.050	1.00	37.9	5,990	<b>6,030</b>	1,450	<b>7,480</b>	528
V 2 @ 4'	12/23/2019	4'	In-Situ	<0.050	<0.300	11.7	697	709	173	882	896
V 4 @ 4'	12/23/2019	4'	Excavated	<0.100	0.974	50.7	6,970	<b>7,020</b>	1,500	<b>8,520</b>	80.0
V 5 @ 4'	12/23/2019	4'	In-Situ	<0.050	<0.300	<10.0	654	654	156	810	64.0
V 1 @ 5'	2/19/2020	5'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
V 1 @ 6'	2/19/2020	6'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-

**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**  
**Grizzly Energy, LLC**  
**Cole State #10**  
**NMOCD Ref. #: nRM2000635221**

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)	Chloride (mg/kg)
V 4 @ 8'	2/19/2020	8'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
V 4 @ 9'	2/19/2020	9'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
NWW1	8/24/2020	N/A	Excavated	<0.00199	<0.00199	<50.0	420	420	<50.0	420	9.90
NEW1	8/24/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	11.7
SWW1	8/24/2020	N/A	Excavated	<0.00200	<0.00200	<49.9	1,260	<b>1,260</b>	117	1,380	63.4
FL1 @ 4'	8/24/2020	4'	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	490
FL2 @ 4'	8/24/2020	4'	In-Situ	<0.00199	<0.00199	<49.9	228	228	<49.9	228	218
FL3 @ 4'	8/24/2020	4'	Excavated	<0.00201	0.215	226	1,580	<b>1,810</b>	120	1,930	441
FL4 @4'	8/25/2020	4'	Excavated	<0.00200	<0.00200	<49.9	1,040	<b>1,040</b>	104	1,140	93.6
FL5@4'	8/25/2020	4'	In-Situ	<0.00198	<0.00198	<49.8	621	621	59.0	680	1,090
FL6 @4'	8/25/2020	4'	In-Situ	<0.00199	<0.00199	<50.0	483	483	<50.0	483	1,420
SWW #2	8/25/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	9.19
NEW #2	8/25/2020	N/A	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	72.5
FL7 @ 4'	8/25/2020	4'	In-Situ	<0.00200	<0.00200	<49.9	156	156	<49.9	156	864
FL8 @ 4'	8/25/2020	4'	In-Situ	<0.00199	<0.00199	<50.0	137	137	<50.0	137	1,990
FL9 @ 4'	8/25/2020	4'	In-Situ	<0.00198	<0.00198	<49.8	71.9	71.9	<49.8	71.9	628
FL10 @ 4'	8/25/2020	4'	In-Situ	<0.00200	<0.00200	<50.0	958	958	89.1	1,050	1,690
FL11 @ 4'	8/26/2020	4'	Excavated	<0.00199	<0.00199	<49.9	1,250	<b>1,250</b>	94.1	1,340	1,630
FL12 @ 4'	8/26/2020	4'	Excavated	<0.00200	<0.00200	<50.0	1,980	<b>1,980</b>	119	2,100	1,720
FL13 @4'	8/26/2020	4'	In-Situ	<0.00198	<0.00198	<49.9	141	141	<49.9	141	1,370
FL14 @4'	8/26/2020	4'	In-Situ	<0.00198	<0.00198	<49.9	300	300	<49.9	300	1,310
FL15 @4'	8/26/2020	4'	Excavated	<0.00199	0.161	69.5	1,060	<b>1,130</b>	78.2	1,210	1,190
SWW3	8/26/2020	N/A	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	11.3
NEW3	8/26/2020	N/A	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	262
SEW1	8/26/2020	N/A	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	9.78
NWW1B	9/9/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
SWW1B	9/9/2020	N/A	In-Situ	-	-	<49.8	<49.8	<49.8	<49.8	<49.8	-
FL3 @5'	9/9/2020	5'	In-Situ	-	-	<50.2	<50.2	<50.2	<50.2	<50.2	-
FL4 @5'	9/9/2020	5'	In-Situ	-	-	<49.8	<49.8	<49.8	<49.8	<49.8	-
FL11 @5'	9/9/2020	5'	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
FL12 @5'	9/9/2020	5'	In-Situ	-	-	<50.2	<50.2	<50.2	<50.2	<50.2	-
FL15 @5'	9/9/2020	5'	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
FL 16 @ 5'	9/10/2020	5'	In-Situ	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	241
FL 17 @ 5'	9/10/2020	5'	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	255
FL 18 @ 5'	9/10/2020	5'	In-Situ	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	245
FL 19 @ 5'	9/10/2020	5'	In-Situ	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	254
FL 20 @ 5'	9/10/2020	5'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	137
SWW 4	9/10/2020	N/A	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	97.8

**NOTES:**

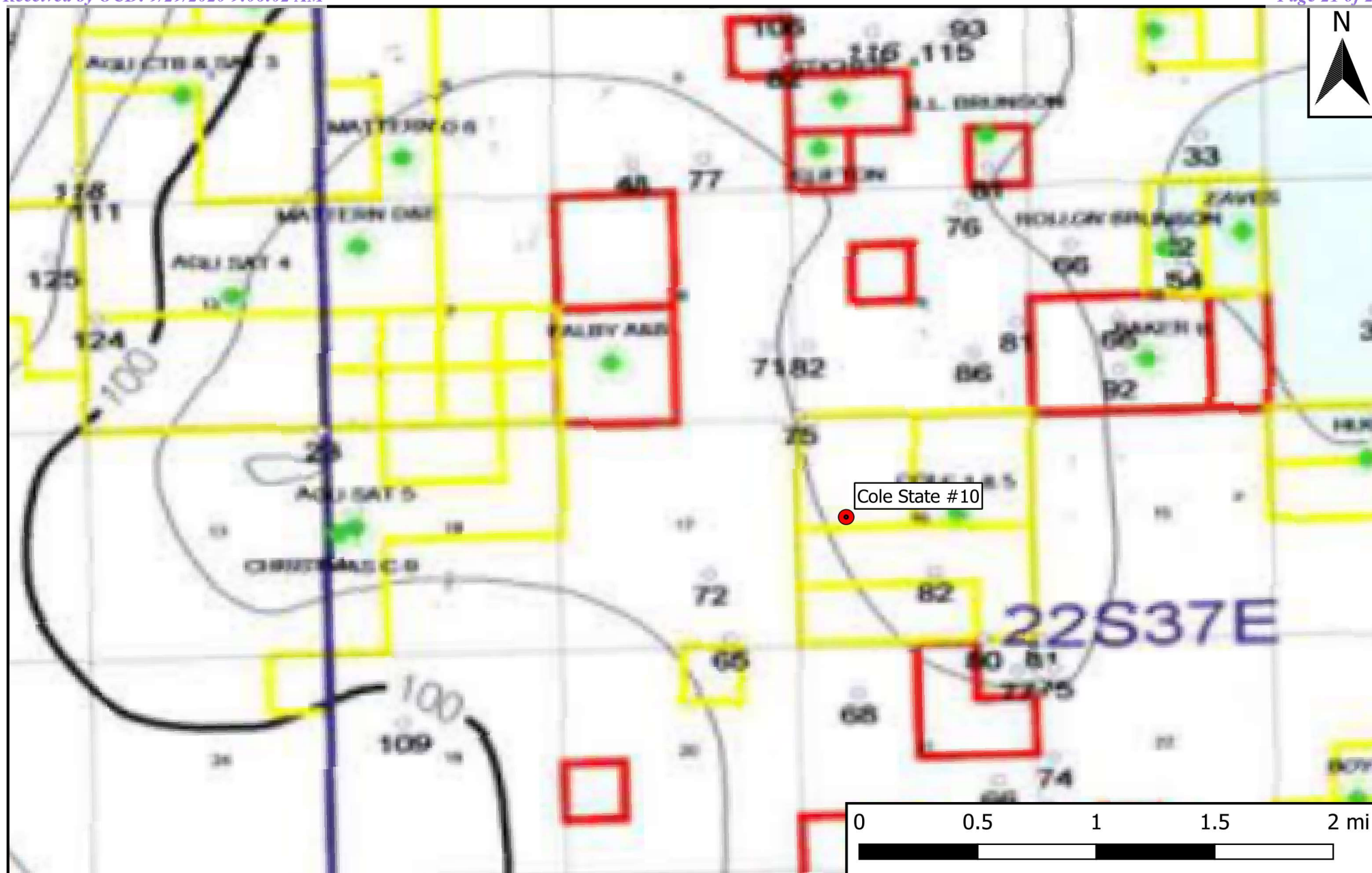
- = Sample not analyzed for that constituent.

**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  
Grizzly Energy, LLC  
Cole State #10  
GPS: 32.39277, -103.17335  
Lea County

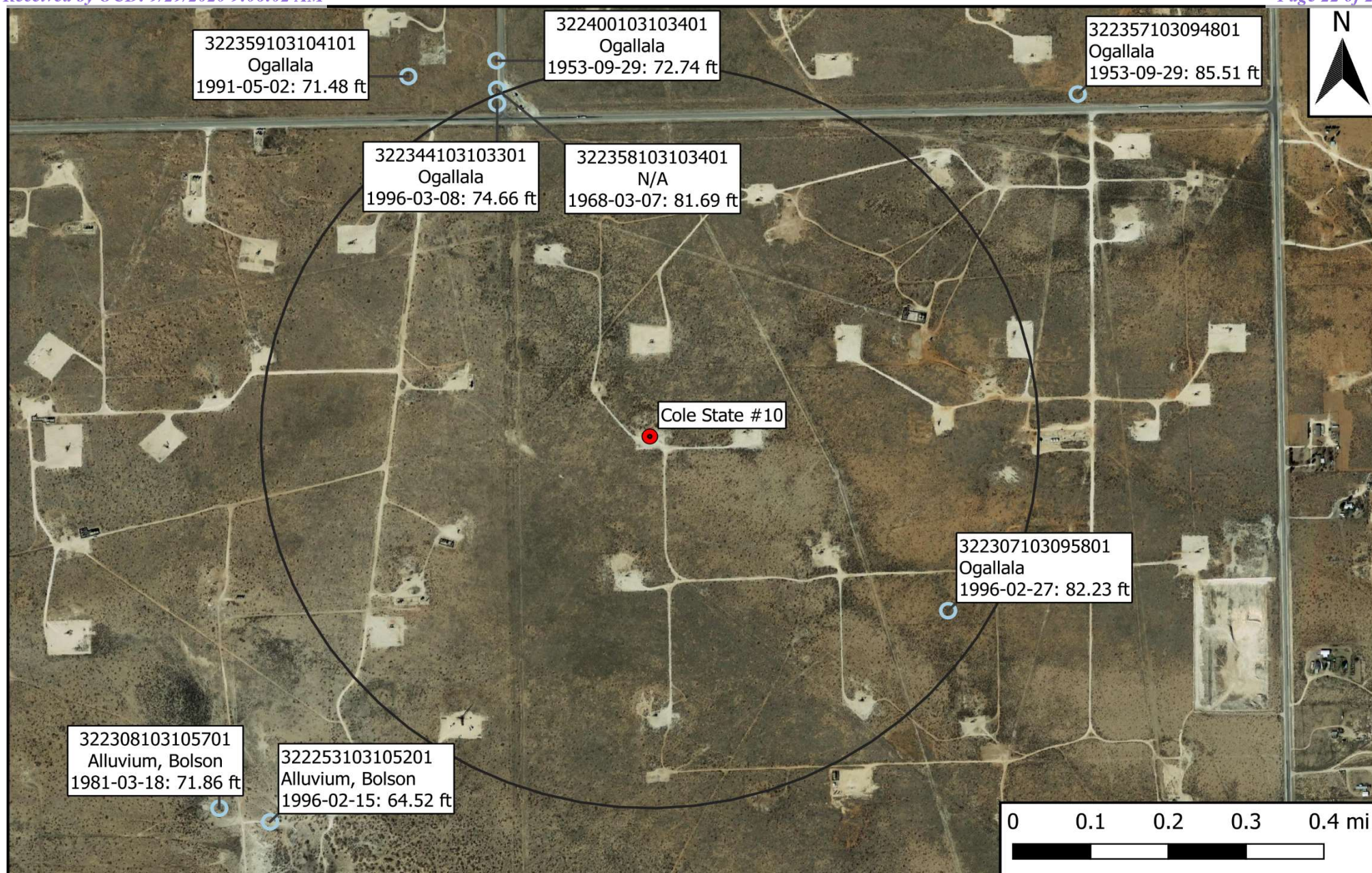
**eTECH**  
Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl

Date: 11/6/19





## Legend

- Site Location
- Well - USGS

## Figure 5

USGS Well Proximity Map  
Grizzly Energy, LLC  
Cole State #10  
GPS: 32.39277, -103.17335  
Lea County



Drafted: mag

Checked: jwl

Date: 11/6/19



## 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):** 671809.79      **Northing (Y):** 3585440.13      **Radius:** 804.67

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11/6/19 11:58 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															Water	
POD Number	Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Column	
<a href="#">CP 00154 POD2</a>		CP	LE	3	3	3	09	22S	37E	671600	3586239*		825	172		
<a href="#">CP 00391 POD1</a>		CP	LE	4	4	4	17	22S	37E	671426	3584623*		902	96		
<a href="#">CP 00246 POD1</a>		CP	LE	2	3	4	16	22S	37E	672633	3584845*		1015	135		
<a href="#">CP 00871</a>		CP	LE				3	09	22S	37E	671902	3586541*		1104	167	94
<a href="#">CP 01353 POD1</a>		CP	LE	3	1	3	09	22S	37E	671514	3586640		1236	93	73	
<a href="#">CP 00245 POD1</a>		CP	LE	3	4	4	16	22S	37E	672835	3584652*		1293	136		
<a href="#">CP 00662</a>		CP	LE	3	3	1	15	22S	37E	673223	3585464*		1413	180	150	
<a href="#">CP 00699</a>		CP	LE	1	1	1	15	22S	37E	673215	3586066*		1538	163	100	
<a href="#">CP 00709</a>		CP	LE			1	3	15	22S	37E	673331	3585163*		1546	200	87
<a href="#">CP 01806 POD1</a>		CP	LE	1	3	3	15	22S	37E	673260	3584788		1590	162	95	
<a href="#">CP 00674</a>		CP	LE			1	1	15	22S	37E	673316	3585967*		1595	100	75
<a href="#">CP 00684</a>		CP	LE			1	1	15	22S	37E	673316	3585967*		1595	200	180
Average Depth to Water:															106 feet	
Minimum Depth:															73 feet	
Maximum Depth:															180 feet	

Record Count: 12

### UTM NAD83 Radius Search (in meters):

Easting (X): 671809.79

Northing (Y): 3585440.13

Radius: 1610

\*UTM location was derived from PLSS - see Help

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11/6/19 11:59 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)	
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
CP	00245 POD1	3	4	4	16	22S	37E	672835	3584652*



x

**Driller License:****Driller Company:****Driller Name:****Drill Start Date:****Drill Finish Date:** 02/17/1947**Plug Date:****Log File Date:****PCW Rcv Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:** 40 GPM**Casing Size:** 8.63**Depth Well:** 136 feet**Depth Water:**

x

\*UTM location was derived from PLSS - see Help

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11/6/19 12:00 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00246 POD1	2	3	4	16	22S	37E	672633	3584845*



x

**Driller License:****Driller Company:****Driller Name:****Drill Start Date:****Drill Finish Date:** 05/17/1949**Plug Date:****Log File Date:****PCW Rcv Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:** 33 GPM**Casing Size:** 7.00**Depth Well:** 135 feet**Depth Water:**

x

\*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

# Point of Diversion Summary

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

Q64	Q16	Q4	Sec	Tws	Rng	X	Y
4	4	4	17	22S	37E	671426	3584623*

Well Tag      POD Number  
CP 00391 POD1

Driller License: 122      Driller Company: UNKNOWN

Driller Name:

Drill Start Date:	Drill Finish Date:	Plug Date:
Log File Date:	PCW Rcv Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield: 10 GPM
Casing Size: 8.00	Depth Well: 96 feet	Depth Water:

\*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP	00662	3	3	1	15	22S	37E	673223	3585464*

x

**Driller License:** 764 **Driller Company:** B & A WATER WELL SERVICE

**Driller Name:** SELMAN, AL

**Drill Start Date:** 07/16/1983

**Drill Finish Date:** 07/20/1983

**Plug Date:**

**Log File Date:** 08/09/1983

**PCW Rcv Date:**

**Source:** Shallow

**Pump Type:**

**Pipe Discharge Size:**

**Estimated Yield:**

**Casing Size:** 6.00

**Depth Well:** 180 feet

**Depth Water:** 150 feet

x

### Water Bearing Stratifications:

Top	Bottom	Description
160	170	Sandstone/Gravel/Conglomerate

x

### Casing Perforations:

Top	Bottom
160	180

x

\*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY





# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP	00674	1	1	15	22S	37E	673316	3585967*	

x

**Driller License:** 208 **Driller Company:** VAN NOY, W.L.

**Driller Name:** VAN NOY, W.L.

**Drill Start Date:** 03/19/1985

**Drill Finish Date:** 03/27/1985

**Plug Date:**

**Log File Date:** 04/08/1985

**PCW Rcv Date:**

**Source:** Shallow

**Pump Type:**

**Pipe Discharge Size:**

**Estimated Yield:** 3 GPM

**Casing Size:** 7.00

**Depth Well:** 100 feet

**Depth Water:** 75 feet

x

### Water Bearing Stratifications:

Top	Bottom	Description
75	100	Sandstone/Gravel/Conglomerate

x

### Casing Perforations:

Top	Bottom
85	100

x

\*UTM location was derived from PLSS - see Help

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11/6/19 12:00 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP	00684	1	1	15	22S	37E	673316	3585967*	

x

**Driller License:** 208 **Driller Company:** VAN NOY, W.L.

**Driller Name:** VAN NOY, W.L.

**Drill Start Date:** 07/24/1985

**Drill Finish Date:** 08/01/1985

**Plug Date:**

**Log File Date:** 08/14/1985

**PCW Rcv Date:**

**Source:** Shallow

**Pump Type:**

**Pipe Discharge Size:**

**Estimated Yield:**

**Casing Size:** 5.00

**Depth Well:** 200 feet

**Depth Water:** 180 feet

x

### Water Bearing Stratifications:

Top	Bottom	Description
175	180	Sandstone/Gravel/Conglomerate
180	200	Other/Unknown

x

### Casing Perforations:

Top	Bottom
180	200

x

\*UTM location was derived from PLSS - see Help

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11/6/19 12:00 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP	00699	1	1	1	15	22S	37E	673215	3586066*

x

**Driller License:** 982 **Driller Company:** EADES, GENE

**Driller Name:** EADES, GENE

**Drill Start Date:** 06/02/1986

**Drill Finish Date:** 06/02/1986

**Plug Date:**

**Log File Date:** 07/11/1986

**PCW Rcv Date:**

**Source:** Shallow

**Pump Type:**

**Pipe Discharge Size:**

**Estimated Yield:** 6 GPM

**Casing Size:** 5.75

**Depth Well:** 163 feet

**Depth Water:** 100 feet

x

### Water Bearing Stratifications:

Top	Bottom	Description
100	163	Sandstone/Gravel/Conglomerate

x

### Casing Perforations:

Top	Bottom
123	163

x

\*UTM location was derived from PLSS - see Help

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

11/6/19 12:00 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP 00709		1	3	15	22S	37E		673331	3585163*

x

**Driller License:** 657 **Driller Company:** OLDAKER & SONS

**Driller Name:** OLDAKER, GEORGE D.(DECEASED)

**Drill Start Date:** 04/28/1987

**Drill Finish Date:** 04/29/1987

**Plug Date:**
**Log File Date:** 08/31/1988

**PCW Rcv Date:**
**Source:** Shallow

**Pump Type:**
**Pipe Discharge Size:**
**Estimated Yield:** 25 GPM

**Casing Size:** 6.00

**Depth Well:** 200 feet

**Depth Water:** 87 feet

x

**Water Bearing Stratifications:**
**Top Bottom Description**

60 87 Sandstone/Gravel/Conglomerate

x

**Casing Perforations:**
**Top Bottom**

117 147

x

\*UTM location was derived from PLSS - see Help

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11/6/19 12:00 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
CP 00871		3	09	22S	37E	671902	3586541*



x

<b>Driller License:</b>	1044	<b>Driller Company:</b>	EADES WELL DRILLING & PUMP SERVICE
-------------------------	------	-------------------------	------------------------------------

<b>Driller Name:</b>	EADES, ALAN
----------------------	-------------

<b>Drill Start Date:</b>	09/29/1997	<b>Drill Finish Date:</b>	09/29/1997	<b>Plug Date:</b>	
--------------------------	------------	---------------------------	------------	-------------------	--

<b>Log File Date:</b>	11/04/1997	<b>PCW Rcv Date:</b>		<b>Source:</b>	Shallow
-----------------------	------------	----------------------	--	----------------	---------

<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>	
-------------------	--	-----------------------------	--	-------------------------	--

<b>Casing Size:</b>	5.75	<b>Depth Well:</b>	167 feet	<b>Depth Water:</b>	94 feet
---------------------	------	--------------------	----------	---------------------	---------

x

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
---------------------------------------	------------	---------------	--------------------

	124	145	Sandstone/Gravel/Conglomerate
--	-----	-----	-------------------------------

	145	164	Sandstone/Gravel/Conglomerate
--	-----	-----	-------------------------------

x

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
-----------------------------	------------	---------------

	147	167
--	-----	-----

x

\*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP 01353	POD1	3	1	3	09	22S	37E	671514	3586640

x

**Driller License:** 1292 **Driller Company:** BENTLE WATER WELL SERVICE

**Driller Name:** BENTLE, BILLY L.

**Drill Start Date:** 05/04/2015

**Drill Finish Date:** 05/18/2015

**Plug Date:**

**Log File Date:** 05/28/2015

**PCW Rcv Date:**

**Source:** Shallow

**Pump Type:**

**Pipe Discharge Size:**

**Estimated Yield:** 9 GPM

**Casing Size:** 6.00

**Depth Well:** 93 feet

**Depth Water:** 73 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	83	93	Other/Unknown

x

Casing Perforations:	Top	Bottom
	73	93

x

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(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
2247E	CP 01806 POD1	1	3	3	15	22S	37E	673260	3584788

x

**Driller License:** 1477 **Driller Company:** M & W WATERWELL SERVICE

**Driller Name:** ROBERT MAUCK

**Drill Start Date:** 10/20/2019

**Drill Finish Date:** 10/21/2019

**Plug Date:**
**Log File Date:** 10/28/2019

**PCW Rcv Date:**
**Source:** Shallow

**Pump Type:**
**Pipe Discharge Size:**
**Estimated Yield:** 10 GPM

**Casing Size:**
**Depth Well:** 162 feet

**Depth Water:** 95 feet

x

**Water Bearing Stratifications:**
**Top Bottom Description**

107 162 Sandstone/Gravel/Conglomerate

x

**Casing Perforations:**
**Top Bottom**

142 162

x

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## Point of Diversion Summary

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(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP	00154 POD2	3	3	3	09	22S	37E	671600	3586239*

x

**Driller License:****Driller Company:****Driller Name:** ED BURKE**Drill Start Date:** 01/31/1946**Drill Finish Date:** 01/31/1946**Plug Date:****Log File Date:****PCW Rcv Date:** 03/12/1992**Source:** Shallow**Pump Type:****Pipe Discharge Size:****Estimated Yield:** 34 GPM**Casing Size:****Depth Well:** 172 feet**Depth Water:**

x

\*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY





National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
United States

GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 322253103105201

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

USGS 322253103105201 22S.37E.17.434414

Available data for this site 

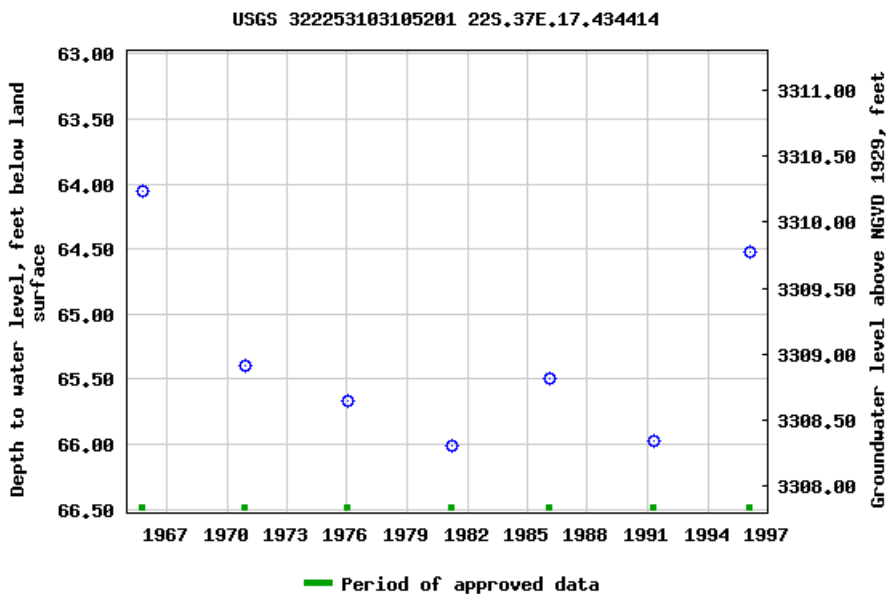
Groundwater: Field measurements

GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'07", Longitude 103°10'53" NAD27  
Land-surface elevation 3,374.30 feet above NGVD29  
The depth of the well is 96 feet below land surface.  
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>



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**Title: Groundwater for USA: Water Levels**

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



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0.61 0.45 nadww01



National Water Information System: Web Interface

USGS Water Resources

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Geographic Area:  
United States

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Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 322307103095801

Minimum number of levels = 1

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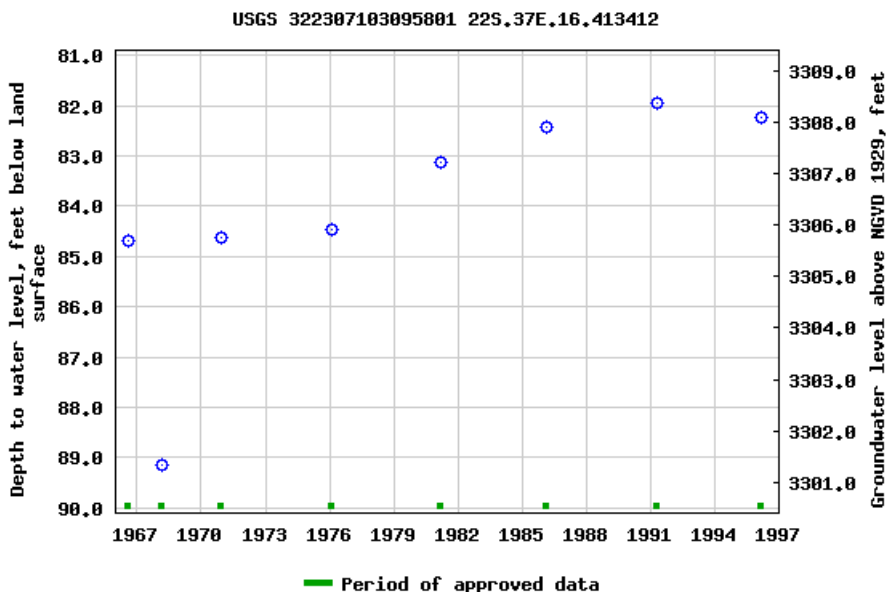
USGS 322307103095801 22S.37E.16.413412

Available data for this site Groundwater: Field measurements GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'21", Longitude 103°09'59" NAD27  
Land-surface elevation 3,390.40 feet above NGVD29  
The depth of the well is 140 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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



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Agency code = usgs  
site\_no list =

- 322308103105701

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

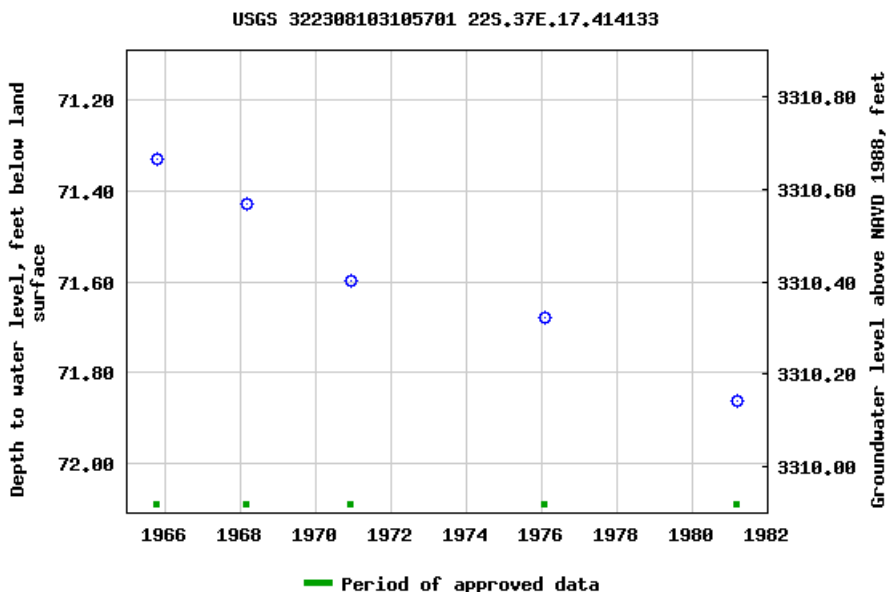
## USGS 322308103105701 22S.37E.17.414133

Available data for this site Groundwater: Field measurements GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'08", Longitude 103°10'57" NAD27  
Land-surface elevation 3,382 feet above NAVD88  
The depth of the well is 110 feet below land surface.  
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

### Output formats

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



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## Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 322344103103301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

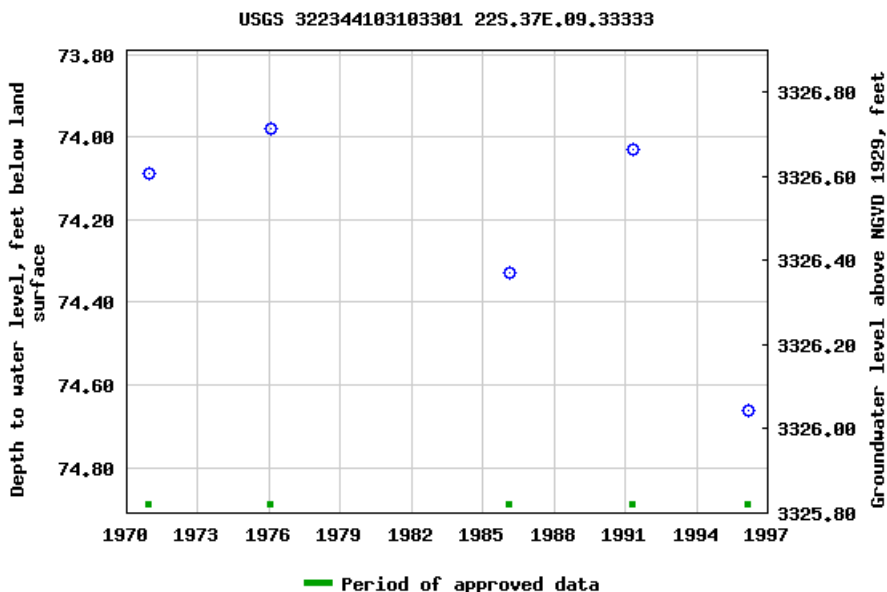
## USGS 322344103103301 22S.37E.09.33333

Available data for this site Groundwater: Field measurements GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'57", Longitude 103°10'34" NAD27  
Land-surface elevation 3,400.70 feet above NGVD29  
The depth of the well is 172 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>



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Geographic Area:  
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## Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 322357103094801

Minimum number of levels = 1

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## USGS 322357103094801 22S.37E.09.423331

Available data for this site 

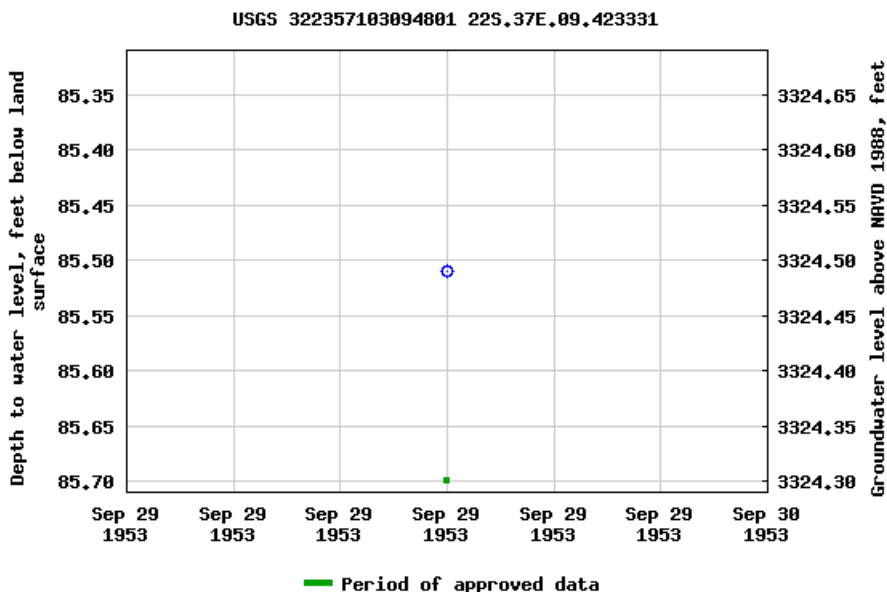
Groundwater: Field measurements

GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'57", Longitude 103°09'48" NAD27  
Land-surface elevation 3,410 feet above NAVD88  
The depth of the well is 115 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
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Agency code = usgs  
site\_no list =

- 322358103103401

Minimum number of levels = 1  
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USGS 322358103103401 22S.37E.09.313

Available data for this site 

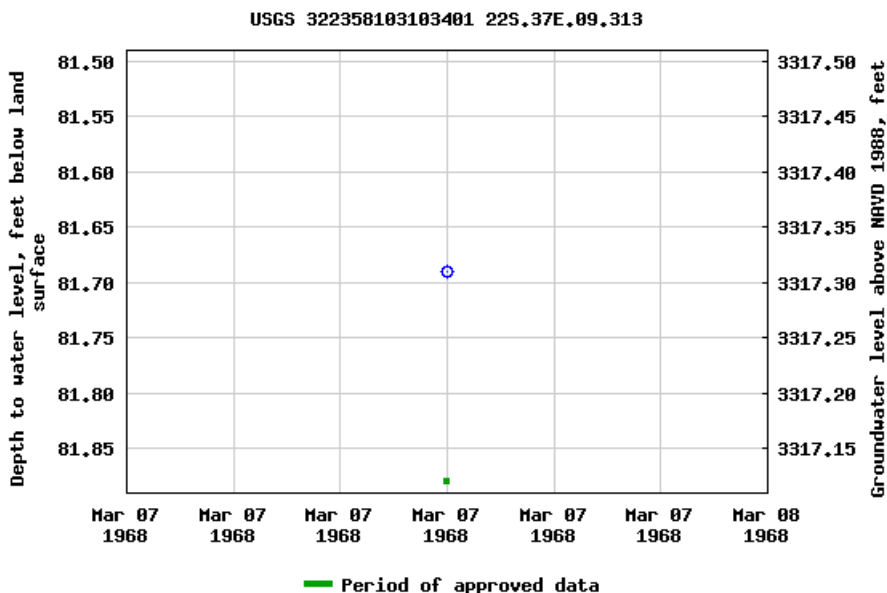
Groundwater: Field measurements

GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'58", Longitude 103°10'34" NAD27  
Land-surface elevation 3,399 feet above NAVD88

Output formats

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



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Agency code = usgs  
site\_no list =

- 322359103104101

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

USGS 322359103104101 22S.37E.08.424134

Available data for this site 

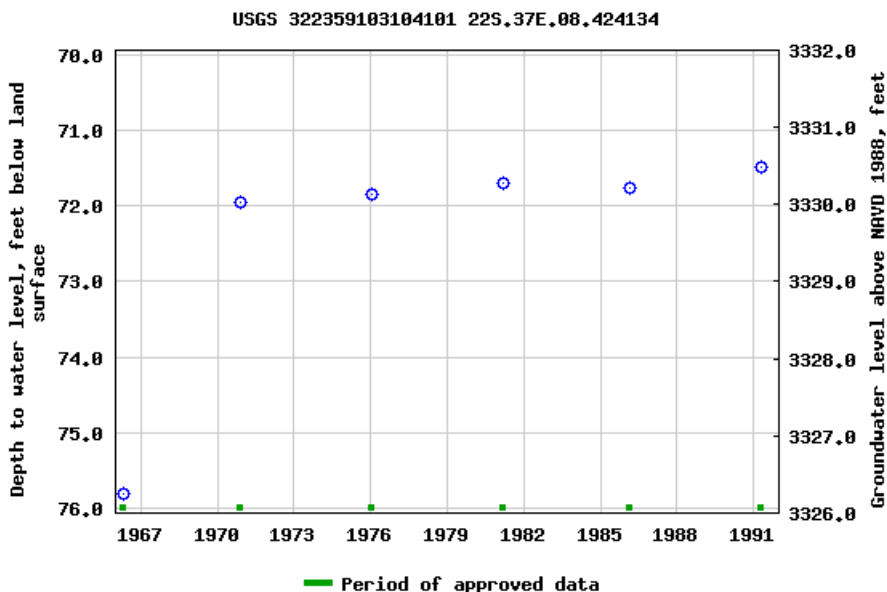
Groundwater: Field measurements

GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'59", Longitude 103°10'41" NAD27  
Land-surface elevation 3,402 feet above NAVD88  
The depth of the well is 168 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>



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Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 322400103103401

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

USGS 322400103103401 22S.37E.09.31313

Available data for this site 

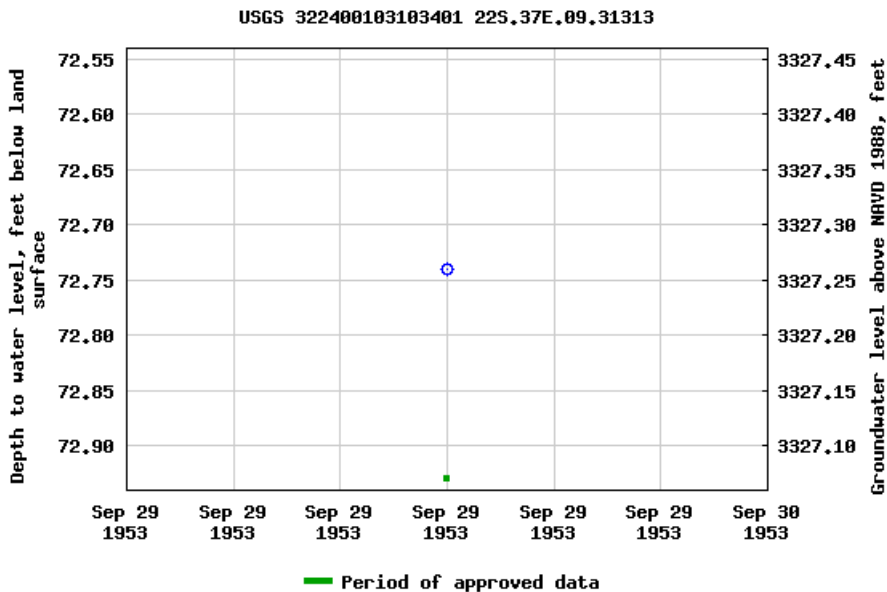
Groundwater: Field measurements

GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°24'00", Longitude 103°10'34" NAD27  
Land-surface elevation 3,400 feet above NAVD88  
The depth of the well is 140 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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



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0.55 0.47 nadww01

## **Appendix B**

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



# Initial Release Assessment Form

Project: Cole State #10

Project Number: 11465

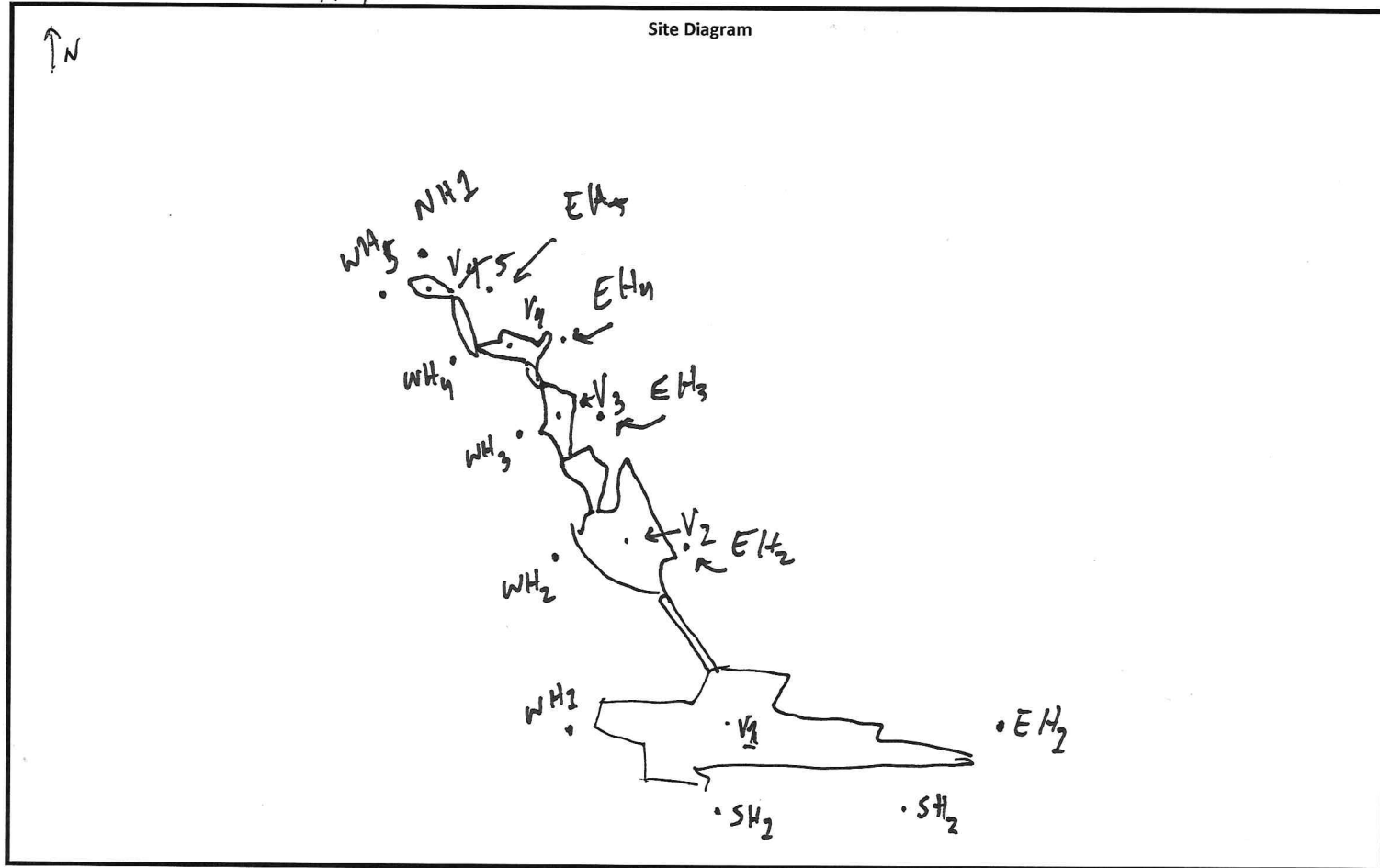
Clean Up Level:

Latitude: 32.39277

Date: 11/5/19

Longitude: 108° 0' 0" -103.17335

Site Diagram



Notes:

Ground affected at 1' at least.

~Length:

~Width:

~Area:

~Depth:

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

Necessary Samples Field Screened and on Ice?

Sample and Field Screen Data Entered on Sample Log?

Was horizontal and vertical delineation achieved?

Yes No

☒ ☐

☒ ☐

☒ ☐

☒ ☐

2/19/20



4' TPH

5 Samples

4' 600 CI, 100 TPH

5' 10,000 CI, 2500 TPH

4 Samples

V1 @ 4' 388

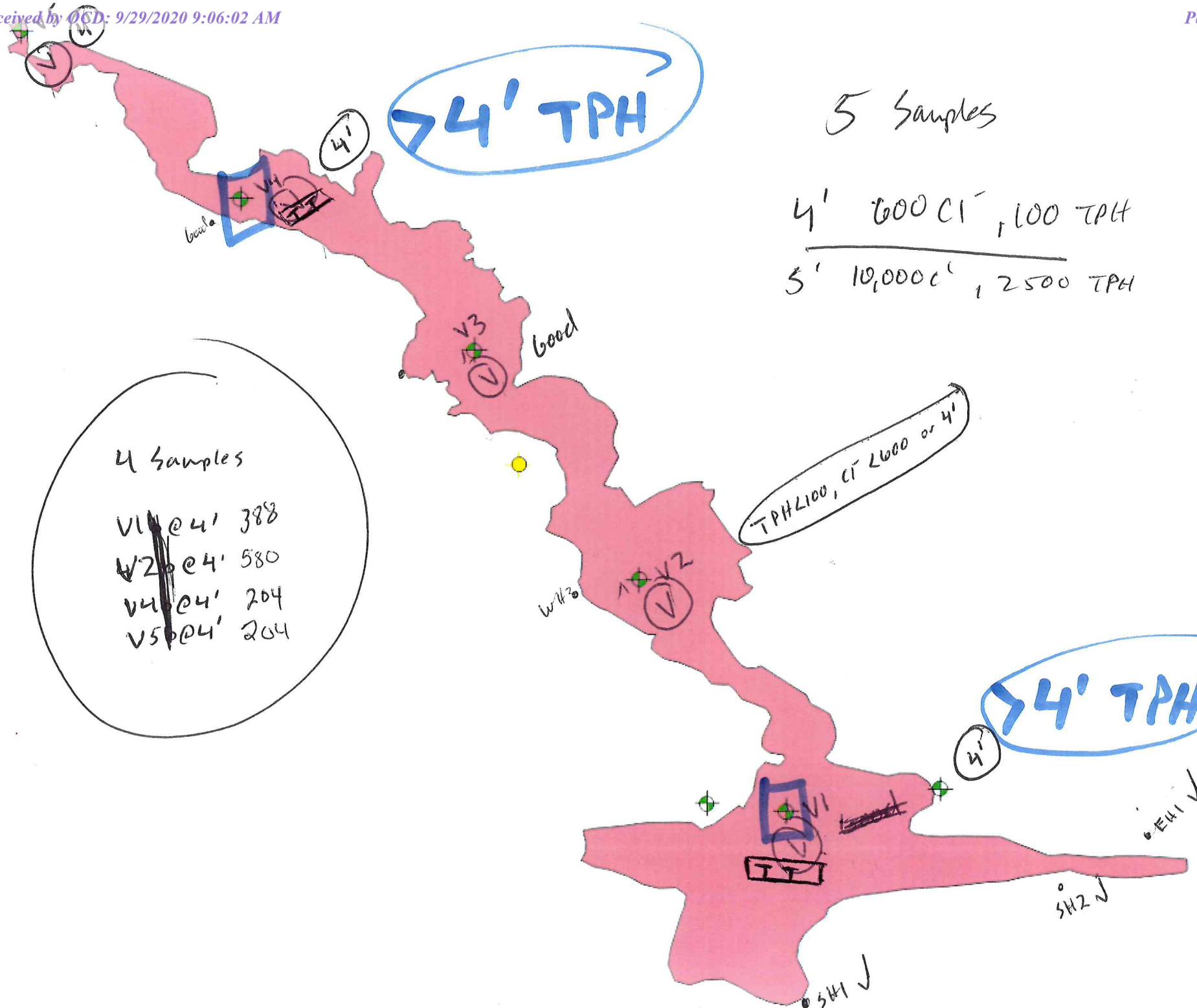
V2 @ 4' 580

V4 @ 4' 204

V5 @ 4' 204

TPH 2100, CI 2600 or 4'

4' TPH



# Sample Log

Date:

11/5/19

Project: Cole State #10

Project Number: 0

Latitude: 32.39277

Longitude: -103.17335

Sample ID	PID/Odor	Chloride Conc.	GPS
V1 @ Surf.	Yes	1032	10:00
V1 @ 1'	Yes	964	10:05
V2 @ Surf	Yes	2320	10:10
V2 @ 1' - R	Y	1380	10:15
V3 @ Surf	Y	1320	10:20
V3 @ 1'	Y	698	10:25
V4 @ Surf	Y	652	10:30
V4 @ 1'	Slight?	896	10:35
V5 @ Surf	Y	<116	10:40
V5 @ 1'	Slight?	312	10:45
<del>11/8/19</del>			
SH 2 @ Surf	No	272	12:00
SH 2 @ 1'	N	140	12:05
SH 2 @ Surf	N	352	12:10
SH 2 @ 1'	N	140	12:15
EH 2 @ Surf	N	200	12:20
EH 2 @ 1'	N	<116	12:25
WH 2 @ Surf	N	168	12:30
WH 2 @ 1'	N	140	12:35
<del>11/8/19</del>			
V1 @ 3'	Y	964	9:10
V1 @ 3.5' - R	Y	1108	9:15
V3 @ 1.5' - R	Maybe?	444	9:40
V4 @ 2' - R	Slight?	400	9:55
V5 @ 1.5' - R	Maybe?	652	10:00
WH 2 @ Surf	N	272	10:30
WH 2 @ 1'	N	652	10:35
WH 3 @ Surf	N	272	10:40
WH 3 @ 1'	N	272 352	10:45
WH 4 @ Surf	N	200	10:50
WH 4 @ 1'	N	200	10:55
NH 5 @ Surf	N	236	11:00
NH 5 @ 1'	N	140	11:05

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

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

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

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

## Date:

11/5/19

Longitude: -103.17335

07-50

### GPS Sample Points, Center of Comp Areas





# Soil Profile

Date: 11/8/19

Project: Cole State #10  
Project Number: 11465 Latitude: 32.39277 Longitude: -103.17335

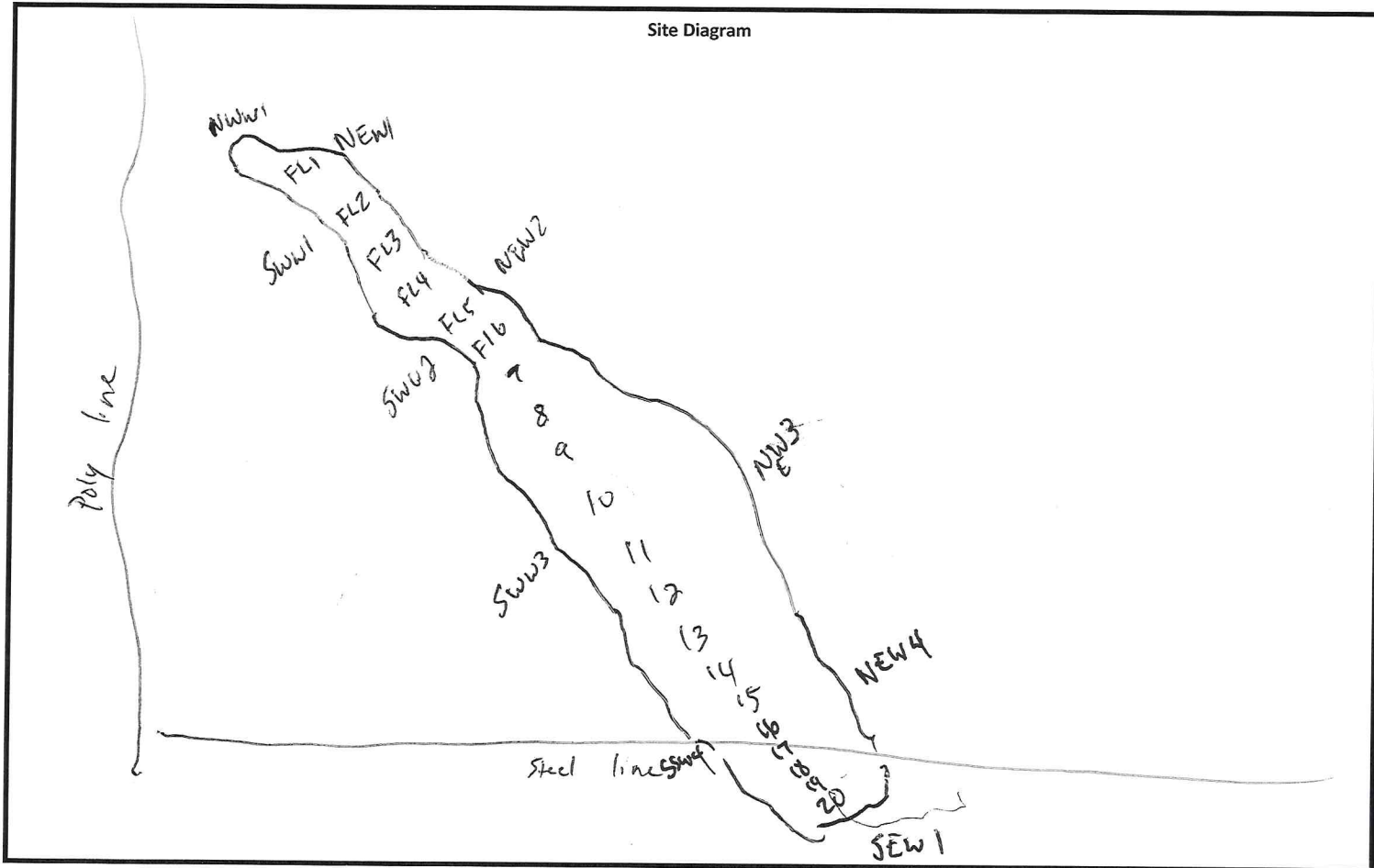
Depth (ft. bgs)	Description
1	
2	
3	
4	Brown Clayey Topsoil w/ Rock
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
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33	
34	
35	
36	
37	
38	
39	
40	



# Initial Release Assessment Form

Project: Cole State #10 Date: 8/24/20  
 Project Number: 11465 Latitude: 32.39287 Longitude: -103.17297  
 Clean Up Level: 10119-0

Site Diagram



Notes:

Notes section with multiple horizontal lines for text entry.

~Length: ~Width: ~Area: ~Depth:

- 3-4 Representative Pictures of the Affected Area including sample locations?
- Necessary Samples Field Screened and on Ice?
- Sample and Field Screen Data Entered on Sample Log?
- Was horizontal and vertical delineation achieved?

Yes	No
<input checked="" 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:

8/24/20

Project: Cole State #10

Project Number: 11465

Latitude: 32.39287

Longitude: -103.17297

[illegible]

**Sample Point = SP #1 @ ## etc**

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

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

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

**Stockpile = Stockpile #1**

### GPS Sample Points, Center of Comp Areas



## Remediation Log

Project: Cole State #10

Project Number: 11465

Latitude: 32.39287

Longitude: -103.17297

Confirmation of Active One Call? One Call No. 20AG120478 8/14 → 9/4

Yes No

☒ ☐

Confirmation of On-Site JSA?

20SE010157 8/9/3 → 9/25

☒ ☐

Date:

Notes

Yds

\*\*\*\*Begin Remediation Activities\*\*\*\*

Out

In

8/24/20

Excavated and stockpile contaminated soil

8/25/20

Excavated and stockpile contaminated soil

8/26/20

Excavated and stockpile contaminated soil

8/27/20

Loaded Tires with contaminated soil

260

9/8/20

Loaded Tires with contaminated soil

80

9/9/20

Excavated and stockpile contaminated soil

9/10/20

Excavated and stockpile contaminated soil

9/11/20

Excavated and loaded Tires with contaminated soil

300

9/15/20

Loaded Tires with Clean Top Soil for backfill

156

9/16/20

Loaded Tires with Clean Top Soil for backfill

180

~~180~~ 144

9/17/20

Loaded Tires with Clean Top Soil for backfill

180

144

9/18/20

Loaded Tires with Clean Top Soil for backfill

180

84

\*\*\*\*Begin Backfill Activities\*\*\*\*

\*\*\*\*Complete Remediation Activities\*\*\*\*

Total Yds

Out

In

640

528

Yes No

☒ ☐☒ ☐

Pictures of Open Excavation Prior to Backfill

Relevant Information in Project Tracker?

## **Appendix C**

### **Laboratory Analytical Reports**



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November 18, 2019

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: COLE STATE 10

Enclosed are the results of analyses for samples received by the laboratory on 11/12/19 16:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 2 @ SURFACE (H903841-01)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.99</b>	0.500	11/14/2019	ND	1.94	97.0	2.00	9.23	
<b>Toluene*</b>	<b>34.6</b>	0.500	11/14/2019	ND	2.01	101	2.00	9.16	
<b>Ethylbenzene*</b>	<b>44.4</b>	0.500	11/14/2019	ND	2.06	103	2.00	9.04	
<b>Total Xylenes*</b>	<b>106</b>	1.50	11/14/2019	ND	6.06	101	6.00	9.02	
<b>Total BTEX</b>	<b>187</b>	3.00	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1600</b>	16.0	11/14/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1870</b>	50.0	11/14/2019	ND	190	94.8	200	1.49	
<b>DRO &gt;C10-C28*</b>	<b>4980</b>	50.0	11/14/2019	ND	188	93.9	200	19.8	
<b>EXT DRO &gt;C28-C36</b>	<b>434</b>	50.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 175 % 41-142

Surrogate: 1-Chlorooctadecane 191 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 3 @ SURFACE (H903841-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>5.49</b>	2.00	11/14/2019	ND	1.94	97.0	2.00	9.23	
<b>Toluene*</b>	<b>77.8</b>	2.00	11/14/2019	ND	2.01	101	2.00	9.16	
<b>Ethylbenzene*</b>	<b>103</b>	2.00	11/14/2019	ND	2.06	103	2.00	9.04	
<b>Total Xylenes*</b>	<b>259</b>	6.00	11/14/2019	ND	6.06	101	6.00	9.02	
<b>Total BTEX</b>	<b>445</b>	12.0	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1200</b>	16.0	11/14/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>11200</b>	100	11/14/2019	ND	190	94.8	200	1.49		
<b>DRO &gt;C10-C28*</b>	<b>45000</b>	100	11/14/2019	ND	188	93.9	200	19.8		
<b>EXT DRO &gt;C28-C36</b>	<b>6930</b>	100	11/14/2019	ND						

Surrogate: 1-Chlorooctane 600 % 41-142

Surrogate: 1-Chlorooctadecane 884 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 4 @ 1' (H903841-03)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.349	0.200	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	9.53	0.200	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	20.7	0.200	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	59.1	0.600	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTEX	89.7	1.20	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 211 % 73.3-129

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>464</b>	16.0	11/14/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	846	50.0	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	2880	50.0	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	213	50.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 156 % 41-142

Surrogate: 1-Chlorooctadecane 156 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 5 @ SURFACE (H903841-04)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	5.15	5.00	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	97.3	10.0	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	171	10.0	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	493	30.0	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTEX	767	55.0	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	15400	100	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	54200	100	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	8010	100	11/14/2019	ND					

Surrogate: 1-Chlorooctane 791 % 41-142

Surrogate: 1-Chlorooctadecane 1030 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SH 1 @ SURFACE (H903841-05)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	0.118	0.050	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	0.105	0.050	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	0.320	0.150	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTX	0.543	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 90.7 % 41-142

Surrogate: 1-Chlorooctadecane 94.0 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SH 1 @ 1' (H903841-06)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	<0.050	0.050	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 99.2 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SH 2 @ SURFACE (H903841-07)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	<0.050	0.050	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 95.9 % 41-142

Surrogate: 1-Chlorooctadecane 97.2 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SH 2 @ 1' (H903841-08)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	<0.050	0.050	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTEX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 1 @ SURFACE (H903841-09)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.200	0.200	11/14/2019	ND	1.94	97.0	2.00	9.23		
Toluene*	<0.200	0.200	11/14/2019	ND	2.01	101	2.00	9.16		
Ethylbenzene*	<0.200	0.200	11/14/2019	ND	2.06	103	2.00	9.04		
Total Xylenes*	<0.600	0.600	11/14/2019	ND	6.06	101	6.00	9.02		
Total BTX	<1.20	1.20	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 95.4 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 1 @ 1' (H903841-10)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 84.8 % 41-142

Surrogate: 1-Chlorooctadecane 88.0 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 1 @ SURFACE (H903841-11)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
<b>DRO &gt;C10-C28*</b>	<b>19.7</b>	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 88.2 % 41-142

Surrogate: 1-Chlorooctadecane 91.0 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/05/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 1 @ 1' (H903841-12)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48	
Total BTEx	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
<b>DRO &gt;C10-C28*</b>	<b>10.5</b>	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 89.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.8 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 P.O. Box 301  
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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 1 @ 3.5' - R (H903841-13)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/15/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	0.271	0.050	11/15/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	0.809	0.050	11/15/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	2.00	0.150	11/15/2019	ND	5.77	96.1	6.00	6.48	
Total BTX	3.08	0.300	11/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 131 % 73.3-129

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	51.5	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	612	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	55.2	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 99.8 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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**Analytical Results For:**

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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 5 @ 1.5' - R (H903841-14)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	0.084	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	0.235	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48	
Total BTX	0.319	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	190	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 83.0 % 41-142

Surrogate: 1-Chlorooctadecane 90.3 % 37.6-147

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**Analytical Results For:**

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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 2 @ SURFACE (H903841-15)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 85.5 % 41-142

Surrogate: 1-Chlorooctadecane 87.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 2 @ 1' (H903841-16)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48	
Total BTEX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 72.3 % 41-142

Surrogate: 1-Chlorooctadecane 74.7 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 P.O. Box 301  
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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 3 @ SURFACE (H903841-17)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 92.2 % 41-142

Surrogate: 1-Chlorooctadecane 93.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 3 @ 1' (H903841-18)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 89.4 % 41-142

Surrogate: 1-Chlorooctadecane 91.4 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 4 @ SURFACE (H903841-19)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 92.3 % 41-142

Surrogate: 1-Chlorooctadecane 95.1 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 4 @ 1' (H903841-20)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48	
Total BTX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 89.9 % 41-142

Surrogate: 1-Chlorooctadecane 94.0 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 5 @ SURFACE (H903841-21)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTEx	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 89.4 % 41-142

Surrogate: 1-Chlorooctadecane 88.8 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WH 5 @ 1' (H903841-22)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48	
Total BTX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 88.0 % 41-142

Surrogate: 1-Chlorooctadecane 90.4 % 37.6-147

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**Analytical Results For:**

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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 2 @ SURFACE (H903841-23)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/15/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/15/2019	ND					

Surrogate: 1-Chlorooctane 92.3 % 41-142

Surrogate: 1-Chlorooctadecane 92.4 % 37.6-147

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**Analytical Results For:**

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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 2 @ 1' (H903841-24)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48	
Total BTEx	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/15/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/15/2019	ND					

Surrogate: 1-Chlorooctane 93.4 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 3 @ SURFACE (H903841-25)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/15/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/15/2019	ND					

Surrogate: 1-Chlorooctane 90.8 % 41-142

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 P.O. Box 301  
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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 3 @ 1' (H903841-26)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48	
Total BTX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/15/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/15/2019	ND					

Surrogate: 1-Chlorooctane 90.3 % 41-142

Surrogate: 1-Chlorooctadecane 91.5 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 4 @ SURFACE (H903841-27)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/14/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/15/2019	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/15/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/15/2019	ND					

Surrogate: 1-Chlorooctane 91.1 % 41-142

Surrogate: 1-Chlorooctadecane 91.7 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 4 @ 1' (H903841-28)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/15/2019	ND	1.84	92.2	2.00	4.62	
Toluene*	<0.050	0.050	11/15/2019	ND	1.90	94.8	2.00	6.68	
Ethylbenzene*	<0.050	0.050	11/15/2019	ND	1.97	98.6	2.00	5.89	
Total Xylenes*	<0.150	0.150	11/15/2019	ND	5.77	96.1	6.00	6.48	
Total BTX	<0.300	0.300	11/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2019	ND	196	98.2	200	2.10	
DRO >C10-C28*	<10.0	10.0	11/15/2019	ND	192	95.9	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	11/15/2019	ND					

Surrogate: 1-Chlorooctane 92.9 % 41-142

Surrogate: 1-Chlorooctadecane 94.3 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 5 @ SURFACE (H903841-29)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/15/2019	ND	1.84	92.2	2.00	4.62		
Toluene*	<0.050	0.050	11/15/2019	ND	1.90	94.8	2.00	6.68		
Ethylbenzene*	<0.050	0.050	11/15/2019	ND	1.97	98.6	2.00	5.89		
Total Xylenes*	<0.150	0.150	11/15/2019	ND	5.77	96.1	6.00	6.48		
Total BTX	<0.300	0.300	11/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	202	101	200	2.38	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	196	98.2	200	3.97	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 105 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: EH 5 @ 1' (H903841-30)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/14/2019	ND	1.73	86.5	2.00	8.21	
Toluene*	<0.050	0.050	11/14/2019	ND	1.73	86.6	2.00	8.42	
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.76	87.9	2.00	8.10	
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.31	88.5	6.00	8.07	
Total BTX	<0.300	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	202	101	200	2.38	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	196	98.2	200	3.97	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 108 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NH 1 @ SURFACE (H903841-31)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.73	86.5	2.00	8.21		
Toluene*	<0.050	0.050	11/14/2019	ND	1.73	86.6	2.00	8.42		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.76	87.9	2.00	8.10		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.31	88.5	6.00	8.07		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	202	101	200	2.38	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	196	98.2	200	3.97	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
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 Fax To: (575) 396-1429

Received: 11/12/2019  
 Reported: 11/18/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 11/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NH 1 @ 1' (H903841-32)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/14/2019	ND	1.73	86.5	2.00	8.21		
Toluene*	<0.050	0.050	11/14/2019	ND	1.73	86.6	2.00	8.42		
Ethylbenzene*	<0.050	0.050	11/14/2019	ND	1.76	87.9	2.00	8.10		
Total Xylenes*	<0.150	0.150	11/14/2019	ND	5.31	88.5	6.00	8.07		
Total BTX	<0.300	0.300	11/14/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/15/2019	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/14/2019	ND	202	101	200	2.38	
DRO >C10-C28*	<10.0	10.0	11/14/2019	ND	196	98.2	200	3.97	
EXT DRO >C28-C36	<10.0	10.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



# ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

**(575) 393-2326 FAX (575) 393-2476**

Etech Environmental & Safety Solutions, Inc.

## BILL TO

<b>Company Name:</b>	Etech Environmental & Safety Solutions, Inc.
<b>Project Manager:</b>	Joel Lowry

P.O. #:

**Address:** P.O. Box 301

Company: Vanquard/Grizzly

City: Lovington

State: NM Zip: 88260

Attn:

Phone #: (575) 396-2378

Fax #: (575) 396-1429

Address:

Project #: 11465

**Project Owner:** Grizzly Energy

City:

Project Name: Cole State 10

State

**Project Location:** Rural Lea

Phone #:

**Sampler Name:** Hayden Scott

Fax #

FOR LAB USE ONLY

## MATRIX

**PRESERV**

## SAMPLING

## Chloride

TPH (8015M)

**BTEX (8021B)**

ANALYSIS REQUEST

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



Page 36 of 38



# ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

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

# BILL TO

ANALYSIS REQUEST

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Etech Environmental & Safety Solutions, Inc.		P.O. #:		BILL TO										ANALYSIS REQUEST									
Project Manager: Joel Lowry		Company:		Vanguard/Grizzly																			
Address: P.O. Box 301		Attn:		Carmen Pitt																			
City: Lovington		Address:																					
Phone #: (575) 396-2378		City:																					
Fax #: (575) 396-1429		State:		Zip:																			
Project #: 11465		Project Owner:		Grizzly Energy																			
Project Name: Cole State 10		State:		Zip:																			
Project Location: Rural Lea		Phone #:																					
Sample Name: Hayden Scott		Fax #:																					
FOR LAB USE ONLY		PRESERV.		SAMPLING																			
Lab I.D.		Sample I.D.																					
H903841		(G)RAB OR (C)OMP.		# CONTAINERS																			
11		WH1 @ Surf		g 1																			
12		WH1 @ 1'		g 1																			
13		V1 @ 3.5' - R		g 1																			
14		V5 @ 1.5' - R		g 1																			
15		WH2 @ Surf		g 1																			
16		WH2 @ 1'		g 1																			
17		WH3 @ Surf		g 1																			
18		WH3 @ 1'		g 1																			
19		WH4 @ Surf		g 1																			
20		WH4 @ 1'		g 1																			
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Relinquished By: [Signature]		Date: 4/12/19		Time: 10:00																			
Relinquished By: [Signature]		Date: 4/12/19		Time: 10:00																			
Delivered By: (Circle One) -1.92		#97		Sample Condition										CHECKED BY: (Initials)									
Sampler - UPS - Bus - Other:		Consented -1.52		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>										V.O.									
Please email results to joel@etechenv.com.		REMARKS:																					



Page 37 of 38



# ORDINAL LABORATORIES

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Etech Environmental & Safety Solutions, Inc.										BILL TO		ANALYSIS REQUEST																																							
Project Manager: Joel Lowry										P.O. #:																																									
Address: P.O. Box 301										Company:		Vanguard/Grizzly																																							
City: Lovington										Attn:		Carmen Pitt																																							
Phone #: (575) 396-2378										Address:																																									
Project #: 11465										City:																																									
Project Name: Cole State 10										State:		Zip:																																							
Project Location: Rural Lea										Phone #:																																									
Sample Name: Hayden Scott										Fax #:																																									
FOR LAB USE ONLY										MATRIX		PRESERV.		SAMPLING																																					
Lab I.D. Sample I.D.										(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME																	
H902841										g		1		x																																					
21 WH5 @ Surf										g		1		x																																					
22 WH5 @ 1'										g		1		x																																					
23 EH2 @ Surf										g		1		x																																					
24 EH2 @ 1'										g		1		x																																					
25 EH3 @ Surf										g		1		x																																					
26 EH3 @ 1'										g		1		x																																					
27 EH4 @ Surf										g		1		x																																					
28 EH4 @ 1'										g		1		x																																					
29 EH5 @ Surf										g		1		x																																					
30 EH5 @ 1'										g		1		x																																					
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Relinquished By: [Signature]										Date: 4/11/19		Received By: [Signature]		Phone Result: [ ] Yes [ ] No		Fax Result: [ ] Yes [ ] No		Add'l Phone #: [ ]		Add'l Fax #: [ ]																															
Relinquished By: [Signature]										Date: 4/11/19		Received By: [Signature]		Phone Result: [ ] Yes [ ] No		Fax Result: [ ] Yes [ ] No		Add'l Phone #: [ ]		Add'l Fax #: [ ]																															
Delivered By: (Circle One) -1.98										Sample Condition		CHECKED BY: (Initials)																																							
Sampler - UPS - Bus - Other: [ ]										Cool [ ] Intact [ ]		Yes [ ] No [ ]																																							
[Signature]										[Signature]		[Signature]																																							
Please email results to joel@etechenv.com.																																																			





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

December 11, 2019

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: COLE STATE 10

Enclosed are the results of analyses for samples received by the laboratory on 12/06/19 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 12/06/2019  
 Reported: 12/11/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 12/06/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 3 @ 4' (H904096-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	1.74	87.1	2.00	12.2	
Toluene*	<0.050	0.050	12/10/2019	ND	1.69	84.7	2.00	12.9	
Ethylbenzene*	<b>0.215</b>	0.050	12/10/2019	ND	1.73	86.5	2.00	12.5	
<b>Total Xylenes*</b>	<b>0.702</b>	0.150	12/10/2019	ND	5.25	87.4	6.00	12.4	
<b>Total BTX</b>	<b>0.917</b>	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1150</b>	16.0	12/10/2019	ND	400	100	400	7.69	QM-07

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>35.1</b>	10.0	12/10/2019	ND	225	113	200	1.94	
<b>DRO &gt;C10-C28*</b>	<b>758</b>	10.0	12/10/2019	ND	228	114	200	3.10	
<b>EXT DRO &gt;C28-C36</b>	<b>106</b>	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 114 % 41-142

Surrogate: 1-Chlorooctadecane 128 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 12/06/2019  
 Reported: 12/11/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 12/06/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 4 @ 3' (H904096-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	1.74	87.1	2.00	12.2	
Toluene*	<0.050	0.050	12/10/2019	ND	1.69	84.7	2.00	12.9	
Ethylbenzene*	<0.050	0.050	12/10/2019	ND	1.73	86.5	2.00	12.5	
Total Xylenes*	<0.150	0.150	12/10/2019	ND	5.25	87.4	6.00	12.4	
Total BTEx	<0.300	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/10/2019	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2019	ND	225	113	200	1.94	
DRO >C10-C28*	468	10.0	12/10/2019	ND	228	114	200	3.10	
EXT DRO >C28-C36	86.4	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 126 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 12/06/2019  
 Reported: 12/11/2019  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY

Sampling Date: 12/06/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: V 5 @ 3' (H904096-03)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>96.0</b>	16.0	12/10/2019	ND	400	100	400	7.69	

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Celey D. Keene, Lab Director/Quality Manager



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---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



9 jo 9 eba d



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Grizzly Energy, LLC

Project Manager: Joel Lowry

Address: 3100 Plains Hwy

City: Lovington

State: NM

Zip: 88260

Phone #: 575-396-2378

Fax #: 575-396-1429

Project #: 11465

Project Owner: Grizzly Energy, LLC

Project Name: Cole State #10

Project Location: Rural Lea

Sampler Name:

P.O. #:

Company: Grizzly Operating

Attn: Carmen Pitt

Address: 4001 Penbrook

City:

State: NM

Zip:

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

DATE

TIME

DATE

TIME

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Chloride

TPH

BTEX 8021

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Relinquished By:

Date: 12/6/19

Received By:

Phone Result:

Fax Result:

Yes

No

Yes

No

Add'l Phone #:

Add'l Fax #:

REMARKS: Email results to

joel@etechnv.com

Relinquished By:

Date: 12/6/19

Received By:

Phone Result:

Fax Result:

Yes

No

Yes

No

Add'l Phone #:

Add'l Fax #:

REMARKS: Email results to

joel@etechnv.com

Delivered By: (Circle One)

3.1c

#97

Cool

Intact

Yes

No

Yes

No

Checked By:

(Initials)

VE

3.1c

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Cool

Intact

Yes

No

Yes

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Checked By:

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3.1c

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Cool

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(Initials)

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3.1c

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Cool

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Yes

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Yes

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Checked By:

(Initials)

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3.1c

#97



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

January 06, 2020

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: COLE STATE 10

Enclosed are the results of analyses for samples received by the laboratory on 12/31/19 16:08.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	12/31/2019	Sampling Date:	12/23/2019
Reported:	01/06/2020	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Jodi Henson
Project Location:	GRIZZLY ENERGY-LEA CO		

**Sample ID: V1 @ 4' (H904325-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/02/2020	ND	1.95	97.7	2.00	2.10	
<b>Toluene*</b>	<b>0.070</b>	0.050	01/02/2020	ND	1.95	97.6	2.00	1.84	
<b>Ethylbenzene*</b>	<b>0.342</b>	0.050	01/02/2020	ND	2.00	100	2.00	2.09	
<b>Total Xylenes*</b>	<b>0.591</b>	0.150	01/02/2020	ND	5.83	97.1	6.00	2.08	
<b>Total BTX</b>	<b>1.00</b>	0.300	01/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>528</b>	16.0	01/02/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>37.9</b>	10.0	01/03/2020	ND	225	112	200	0.325		
<b>DRO &gt;C10-C28*</b>	<b>5990</b>	10.0	01/03/2020	ND	219	110	200	0.765		
<b>EXT DRO &gt;C28-C36</b>	<b>1450</b>	10.0	01/03/2020	ND						

Surrogate: 1-Chlorooctane 139 % 41-142

Surrogate: 1-Chlorooctadecane 315 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	12/31/2019	Sampling Date:	12/23/2019
Reported:	01/06/2020	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Jodi Henson
Project Location:	GRIZZLY ENERGY-LEA CO		

**Sample ID: V2 @ 4' (H904325-02)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/03/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	<0.050	0.050	01/03/2020	ND	1.95	97.6	2.00	1.84	
<b>Ethylbenzene*</b>	<b>0.155</b>	0.050	01/03/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	<0.150	0.150	01/03/2020	ND	5.83	97.1	6.00	2.08	
Total BTX	<0.300	0.300	01/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>896</b>	16.0	01/02/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>11.7</b>	10.0	01/03/2020	ND	225	112	200	0.325		
<b>DRO &gt;C10-C28*</b>	<b>697</b>	10.0	01/03/2020	ND	219	110	200	0.765		
<b>EXT DRO &gt;C28-C36</b>	<b>173</b>	10.0	01/03/2020	ND						

Surrogate: 1-Chlorooctane 134 % 41-142

Surrogate: 1-Chlorooctadecane 153 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	12/31/2019	Sampling Date:	12/23/2019
Reported:	01/06/2020	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Jodi Henson
Project Location:	GRIZZLY ENERGY-LEA CO		

**Sample ID: V4 @ 4' (H904325-03)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	01/03/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	<0.100	0.100	01/03/2020	ND	1.95	97.6	2.00	1.84	
Ethylbenzene*	0.417	0.100	01/03/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	0.557	0.300	01/03/2020	ND	5.83	97.1	6.00	2.08	
Total BTX	0.974	0.600	01/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/02/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	50.7	10.0	01/03/2020	ND	225	112	200	0.325	
DRO >C10-C28*	6970	10.0	01/03/2020	ND	219	110	200	0.765	
EXT DRO >C28-C36	1500	10.0	01/03/2020	ND					

Surrogate: 1-Chlorooctane 157 % 41-142

Surrogate: 1-Chlorooctadecane 326 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 12/31/2019  
 Reported: 01/06/2020  
 Project Name: COLE STATE 10  
 Project Number: 11465  
 Project Location: GRIZZLY ENERGY-LEA CO

Sampling Date: 12/23/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: V5 @ 4' (H904325-04)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/03/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	<0.050	0.050	01/03/2020	ND	1.95	97.6	2.00	1.84	
Ethylbenzene*	<0.050	0.050	01/03/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	<0.150	0.150	01/03/2020	ND	5.83	97.1	6.00	2.08	
Total BTX	<0.300	0.300	01/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/02/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/03/2020	ND	225	112	200	0.325	
DRO >C10-C28*	654	10.0	01/03/2020	ND	219	110	200	0.765	
EXT DRO >C28-C36	156	10.0	01/03/2020	ND					

Surrogate: 1-Chlorooctane 129 % 41-142

Surrogate: 1-Chlorooctadecane 161 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



---

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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

Company Name: Eteck Environmental  
Project Manager: Joel Lowry

Address: 3100 Plains Hwy

City: Livingston

State: NM Zip: 88260

Phone #: 432-446-4450 Fax #:

Project #: Cole State 10 Project Owner: Grizzly

Project Name:

Project Location: lea Co, New Mexico

Sampler Name: Miguel Ramirez

FOR LAB USE ONLY

Matrix

Preserv

Sampling

Chloride

TPH

BTEX 8021

ANALYSIS REQUEST

Phone Result: ☐ Yes ☐ No

ADD'l Phone #:

ADD'l Fax #:

REMARKS: email results to joel@eteckenv.com

lauri@eteckenv.com

PM@eteckenv.com

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

FORM-006 R.2.0

Relinquished By:

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

February 24, 2020

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: COLE STATE 10

Enclosed are the results of analyses for samples received by the laboratory on 02/19/20 15:46.

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Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY-LEA CO		

**Sample ID: V 1 @ 5 (H000526-01)**

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2020	ND	198	99.2	200	0.403	
DRO >C10-C28*	<10.0	10.0	02/21/2020	ND	186	93.0	200	1.55	
EXT DRO >C28-C36	<10.0	10.0	02/21/2020	ND					
<hr/>									
Surrogate: 1-Chlorooctane	94.9 %	44.3-144							
Surrogate: 1-Chlorooctadecane	97.6 %	42.2-156							

**Sample ID: V 1 @ 6 (H000526-02)**

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2020	ND	198	99.2	200	0.403	
DRO >C10-C28*	<10.0	10.0	02/21/2020	ND	186	93.0	200	1.55	
EXT DRO >C28-C36	<10.0	10.0	02/21/2020	ND					
Surrogate: 1-Chlorooctane	93.8 %	44.3-144							
Surrogate: 1-Chlorooctadecane	97.2 %	42.2-156							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Etech Environmental & Safety Solutions  
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 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY-LEA CO		

**Sample ID: V 4 @ 8 (H000526-03)**

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2020	ND	198	99.2	200	0.403	
DRO >C10-C28*	<10.0	10.0	02/21/2020	ND	186	93.0	200	1.55	
EXT DRO >C28-C36	<10.0	10.0	02/21/2020	ND					
Surrogate: 1-Chlorooctane	94.3 %	44.3-144							
Surrogate: 1-Chlorooctadecane	99.2 %	42.2-156							

**Sample ID: V 4 @ 9 (H000526-04)**

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2020	ND	198	99.2	200	0.403	
DRO >C10-C28*	<10.0	10.0	02/21/2020	ND	186	93.0	200	1.55	
EXT DRO >C28-C36	<10.0	10.0	02/21/2020	ND					
Surrogate: 1-Chlorooctane	93.3 %	44.3-144							
Surrogate: 1-Chlorooctadecane	97.1 %	42.2-156							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

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Celey D. Keene, Lab Director/Quality Manager



Page 3 of 3



701 East Mariana, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

# Certificate of Analysis Summary 670837

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

**Project Name: Cole State #10**

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County,NM

**Date Received in Lab:** Tue 08.25.2020 11:15

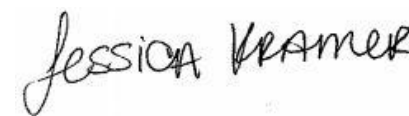
**Report Date:** 08.31.2020 16:22

**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670837-001	670837-002	670837-003	670837-004	670837-005	670837-006
	<i>Field Id:</i>	NWW1	NEW1	SWW1	FL1 @ 4'	FL2 @ 4'	FL3 @ 4'
	<i>Depth:</i>				4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.24.2020 00:00	08.24.2020 00:00	08.24.2020 00:00	08.24.2020 00:00	08.24.2020 00:00	08.24.2020 00:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	08.26.2020 08:30	08.26.2020 08:30	08.26.2020 08:30	08.26.2020 08:30	08.26.2020 08:30	08.26.2020 08:30
	<i>Analyzed:</i>	08.26.2020 11:35	08.26.2020 11:55	08.26.2020 12:16	08.26.2020 12:36	08.26.2020 12:57	08.26.2020 13:17
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	0.0170 0.00201
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	0.0600 0.00201
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00399 0.00399	<0.00396 0.00396	<0.00398 0.00398	0.0785 0.00402
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	0.0595 0.00201
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	0.138 0.00201
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	0.215 0.00201
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	08.25.2020 16:00	08.25.2020 16:00	08.25.2020 16:00	08.25.2020 16:00	08.25.2020 16:00	08.25.2020 16:00
	<i>Analyzed:</i>	08.25.2020 22:21	08.25.2020 22:37	08.25.2020 22:42	08.25.2020 22:48	08.25.2020 22:53	08.25.2020 23:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		9.90 5.02	11.7 4.99	63.4 25.2	490 24.9	218 24.8	441 25.2
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	08.26.2020 12:00	08.26.2020 12:00	08.26.2020 12:00	08.26.2020 12:00	08.26.2020 12:00	08.26.2020 12:00
	<i>Analyzed:</i>	08.28.2020 23:54	08.28.2020 22:42	08.29.2020 00:18	08.29.2020 00:41	08.29.2020 01:05	08.29.2020 01:29
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	226 49.9
Diesel Range Organics (DRO)		420 50.0	<50.0 50.0	1260 49.9	<50.0 50.0	228 49.9	1580 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	117 49.9	<50.0 50.0	<49.9 49.9	120 49.9
Total TPH		420 50.0	<50.0 50.0	1380 49.9	<50.0 50.0	228 49.9	1930 49.9

BRL - Below Reporting Limit

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



# **Analytical Report 670837**

**for**

## **Etech Environmental & Safety Solution, Inc**

**Project Manager: PM**

**Cole State #10**

**11465**

**08.31.2020**

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)





08.31.2020

Project Manager: **PM**

**Etech Environmental & Safety Solution, Inc**

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **670837**

**Cole State #10**

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) 670837. 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. 670837 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 670837****Etech Environmental & Safety Solution, Inc, Midland, TX**

Cole State #10

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NWW1	S	08.24.2020 00:00		670837-001
NEW1	S	08.24.2020 00:00		670837-002
SWW1	S	08.24.2020 00:00		670837-003
FL1 @ 4'	S	08.24.2020 00:00	4 ft	670837-004
FL2 @ 4'	S	08.24.2020 00:00	4 ft	670837-005
FL3 @ 4'	S	08.24.2020 00:00	4 ft	670837-006



## CASE NARRATIVE

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

**Project Name:** Cole State #10

Project ID: 11465  
Work Order Number(s): 670837

Report Date: 08.31.2020  
Date Received: 08.25.2020

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### Sample receipt non conformances and comments:

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

None

### Analytical non conformances and comments:

Batch: LBA-3135648 BTEX by EPA 8021B

Lab Sample ID 670837-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 670837-001, -002, -003, -004, -005, -006.

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



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **NWW1** Matrix: Soil Date Received: 08.25.2020 11:15  
 Lab Sample Id: 670837-001 Date Collected: 08.24.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Date Prep: 08.25.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.90	5.02	mg/kg	08.25.2020 22:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.26.2020 12:00 Basis: Wet Weight  
 Seq Number: 3135951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.28.2020 23:54	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	420	50.0	mg/kg	08.28.2020 23:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.28.2020 23:54	U	1
<b>Total TPH</b>	PHC635	420	50.0	mg/kg	08.28.2020 23:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	08.28.2020 23:54	
o-Terphenyl	84-15-1	108	%	70-130	08.28.2020 23:54	



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **NWW1**  
Lab Sample Id: 670837-001

Matrix: Soil  
Date Collected: 08.24.2020 00:00

Date Received: 08.25.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.26.2020 08:30

Basis: Wet Weight

Seq Number: 3135648

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.26.2020 11:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.26.2020 11:35	UX	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.26.2020 11:35	UX	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.26.2020 11:35	UX	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.26.2020 11:35	UX	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.26.2020 11:35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.26.2020 11:35	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.26.2020 11:35		
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.26.2020 11:35		



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **NEW1**  
Lab Sample Id: 670837-002

Matrix: Soil  
Date Collected: 08.24.2020 00:00

Date Received: 08.25.2020 11:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.25.2020 16:00

Basis: Wet Weight

Seq Number: 3135539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	4.99	mg/kg	08.25.2020 22:37		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.26.2020 12:00

Basis: Wet Weight

Seq Number: 3135951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.28.2020 22:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.28.2020 22:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.28.2020 22:42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.28.2020 22:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	08.28.2020 22:42	
o-Terphenyl	84-15-1	111	%	70-130	08.28.2020 22:42	



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **NEW1**  
Lab Sample Id: 670837-002

Matrix: Soil  
Date Collected: 08.24.2020 00:00

Date Received: 08.25.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.26.2020 08:30

Basis: Wet Weight

Seq Number: 3135648

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.2020 11:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.2020 11:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.2020 11:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.26.2020 11:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.2020 11:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.2020 11:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.2020 11:55	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.26.2020 11:55		
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.26.2020 11:55		





# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **SWW1** Matrix: Soil Date Received: 08.25.2020 11:15  
 Lab Sample Id: 670837-003 Date Collected: 08.24.2020 00:00  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Date Prep: 08.25.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.4	25.2	mg/kg	08.25.2020 22:42		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.26.2020 12:00 Basis: Wet Weight  
 Seq Number: 3135951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 00:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	1260	49.9	mg/kg	08.29.2020 00:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	117	49.9	mg/kg	08.29.2020 00:18		1
Total TPH	PHC635	1380	49.9	mg/kg	08.29.2020 00:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	08.29.2020 00:18	
o-Terphenyl	84-15-1	108	%	70-130	08.29.2020 00:18	



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **SWW1**  
Lab Sample Id: 670837-003

Matrix: Soil  
Date Collected: 08.24.2020 00:00

Date Received: 08.25.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.26.2020 08:30

Basis: Wet Weight

Seq Number: 3135648

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.2020 12:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.2020 12:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.2020 12:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.26.2020 12:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.2020 12:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.2020 12:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.2020 12:16	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.26.2020 12:16		
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.26.2020 12:16		



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **FL1 @ 4'** Matrix: Soil Date Received: 08.25.2020 11:15  
 Lab Sample Id: 670837-004 Date Collected: 08.24.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Date Prep: 08.25.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	490	24.9	mg/kg	08.25.2020 22:48		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.26.2020 12:00 Basis: Wet Weight  
 Seq Number: 3135951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 00:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.29.2020 00:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.29.2020 00:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.29.2020 00:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	08.29.2020 00:41	
o-Terphenyl	84-15-1	113	%	70-130	08.29.2020 00:41	



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **FL1 @ 4'**  
Lab Sample Id: 670837-004

Matrix: Soil  
Date Collected: 08.24.2020 00:00

Date Received: 08.25.2020 11:15  
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.26.2020 08:30

Basis: Wet Weight

Seq Number: 3135648

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.26.2020 12:36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.26.2020 12:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.26.2020 12:36	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.26.2020 12:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.26.2020 12:36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.26.2020 12:36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.26.2020 12:36	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.26.2020 12:36		
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.26.2020 12:36		



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **FL2 @ 4'** Matrix: Soil Date Received: 08.25.2020 11:15  
 Lab Sample Id: 670837-005 Date Collected: 08.24.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Date Prep: 08.25.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	218	24.8	mg/kg	08.25.2020 22:53		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.26.2020 12:00 Basis: Wet Weight  
 Seq Number: 3135951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 01:05	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	228	49.9	mg/kg	08.29.2020 01:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 01:05	U	1
<b>Total TPH</b>	PHC635	228	49.9	mg/kg	08.29.2020 01:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	08.29.2020 01:05	
o-Terphenyl	84-15-1	110	%	70-130	08.29.2020 01:05	



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **FL2 @ 4'**  
Lab Sample Id: 670837-005

Matrix: Soil  
Date Collected: 08.24.2020 00:00

Date Received: 08.25.2020 11:15  
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3135648

Prep Method: SW5035A

% Moisture:

Date Prep: 08.26.2020 08:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.26.2020 12:57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.26.2020 12:57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.26.2020 12:57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.26.2020 12:57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.26.2020 12:57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.26.2020 12:57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.26.2020 12:57	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.26.2020 12:57		
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.26.2020 12:57		



# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **FL3 @ 4'** Matrix: Soil Date Received: 08.25.2020 11:15  
 Lab Sample Id: 670837-006 Date Collected: 08.24.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Date Prep: 08.25.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	441	25.2	mg/kg	08.25.2020 23:03		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.26.2020 12:00 Basis: Wet Weight  
 Seq Number: 3135951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	226	49.9	mg/kg	08.29.2020 01:29		1
Diesel Range Organics (DRO)	C10C28DRO	1580	49.9	mg/kg	08.29.2020 01:29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	120	49.9	mg/kg	08.29.2020 01:29		1
Total TPH	PHC635	1930	49.9	mg/kg	08.29.2020 01:29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	08.29.2020 01:29	
o-Terphenyl	84-15-1	111	%	70-130	08.29.2020 01:29	





# Certificate of Analytical Results 670837

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

Cole State #10

Sample Id: **FL3 @ 4'**  
Lab Sample Id: 670837-006

Matrix: Soil  
Date Collected: 08.24.2020 00:00

Date Received: 08.25.2020 11:15  
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3135648

Prep Method: SW5035A

% Moisture:

Date Prep: 08.26.2020 08:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.26.2020 13:17	U	1
<b>Toluene</b>	108-88-3	<b>0.0170</b>	0.00201	mg/kg	08.26.2020 13:17		1
<b>Ethylbenzene</b>	100-41-4	<b>0.0600</b>	0.00201	mg/kg	08.26.2020 13:17		1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.0785</b>	0.00402	mg/kg	08.26.2020 13:17		1
<b>o-Xylene</b>	95-47-6	<b>0.0595</b>	0.00201	mg/kg	08.26.2020 13:17		1
<b>Total Xylenes</b>	1330-20-7	<b>0.138</b>	0.00201	mg/kg	08.26.2020 13:17		1
<b>Total BTEX</b>		<b>0.215</b>	0.00201	mg/kg	08.26.2020 13:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	08.26.2020 13:17	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.26.2020 13:17	

## 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

Cole State #10

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135539

MB Sample Id: 7710137-1-BLK

Matrix: Solid

LCS Sample Id: 7710137-1-BKS

Prep Method: E300P

Date Prep: 08.25.2020

LCSD Sample Id: 7710137-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	246	98	90-110	0	20	mg/kg	08.25.2020 21:39	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135539

Parent Sample Id: 670837-006

Matrix: Soil

MS Sample Id: 670837-006 S

Prep Method: E300P

Date Prep: 08.25.2020

MSD Sample Id: 670837-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	441	1260	1800	108	1800	108	90-110	0	20	mg/kg	08.25.2020 23:09	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135539

Parent Sample Id: 670839-011

Matrix: Soil

MS Sample Id: 670839-011 S

Prep Method: E300P

Date Prep: 08.25.2020

MSD Sample Id: 670839-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	652	250	889	95	893	96	90-110	0	20	mg/kg	08.25.2020 21:55	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3135951

MB Sample Id: 7710240-1-BLK

Matrix: Solid

LCS Sample Id: 7710240-1-BKS

Prep Method: SW8015P

Date Prep: 08.26.2020

LCSD Sample Id: 7710240-1-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	975	98	70-130	4	20	mg/kg	08.28.2020 21:51	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1010	101	70-130	0	20	mg/kg	08.28.2020 21:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		94		92		70-130	%	08.28.2020 21:51
o-Terphenyl	102		96		84		70-130	%	08.28.2020 21:51

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3135951

Matrix: Solid

MB Sample Id: 7710240-1-BLK

Prep Method: SW8015P

Date Prep: 08.26.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.28.2020 21:24	

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



## Etech Environmental & Safety Solution, Inc

Cole State #10

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3135951

Parent Sample Id: 670837-002

Matrix: Soil

MS Sample Id: 670837-002 S

Prep Method: SW8015P

Date Prep: 08.26.2020

MSD Sample Id: 670837-002 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	1060	106	1090	109	70-130	3	20	mg/kg	08.28.2020 23:06	
Diesel Range Organics (DRO)	<49.9	998	1180	118	1210	121	70-130	3	20	mg/kg	08.28.2020 23:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		117		70-130	%	08.28.2020 23:06
o-Terphenyl	116		117		70-130	%	08.28.2020 23:06

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

Seq Number: 3135648

MB Sample Id: 7710249-1-BLK

Matrix: Solid

LCS Sample Id: 7710249-1-BKS

Prep Method: SW5035A

Date Prep: 08.26.2020

LCSD Sample Id: 7710249-1-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	0.0914	91	0.0864	86	70-130	6	35	mg/kg	08.26.2020 09:14	
Toluene	<0.00200	0.100	0.0836	84	0.0816	82	70-130	2	35	mg/kg	08.26.2020 09:14	
Ethylbenzene	<0.00200	0.100	0.0856	86	0.0851	85	70-130	1	35	mg/kg	08.26.2020 09:14	
m,p-Xylenes	<0.00400	0.200	0.172	86	0.175	88	70-130	2	35	mg/kg	08.26.2020 09:14	
o-Xylene	<0.00200	0.100	0.0862	86	0.0872	87	70-130	1	35	mg/kg	08.26.2020 09:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		97		70-130	%	08.26.2020 09:14
4-Bromofluorobenzene	97		104		106		70-130	%	08.26.2020 09:14

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

Seq Number: 3135648

Parent Sample Id: 670837-001

Matrix: Soil

MS Sample Id: 670837-001 S

Prep Method: SW5035A

Date Prep: 08.26.2020

MSD Sample Id: 670837-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0698	70	0.0741	74	70-130	6	35	mg/kg	08.26.2020 09:55	
Toluene	<0.00200	0.0998	0.0652	65	0.0670	67	70-130	3	35	mg/kg	08.26.2020 09:55	X
Ethylbenzene	<0.00200	0.0998	0.0628	63	0.0608	61	70-130	3	35	mg/kg	08.26.2020 09:55	X
m,p-Xylenes	<0.00399	0.200	0.127	64	0.120	60	70-130	6	35	mg/kg	08.26.2020 09:55	X
o-Xylene	<0.00200	0.0998	0.0633	63	0.0607	61	70-130	4	35	mg/kg	08.26.2020 09:55	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	08.26.2020 09:55
4-Bromofluorobenzene	98		112		70-130	%	08.26.2020 09:55

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

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

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

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



## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 569-3334  
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1236  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-8800

Work Order No:

1010837

www.xenco.com Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	1st 22 lea
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Livingston, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@elechenry.com + Client

Project Name:	Vol State #10	Turn Around	
Project Number:	11465	Route:	<input checked="" type="checkbox"/>
Project Location:	Lea County, NM	Rush:	<input type="checkbox"/>
Sampler's Name:	M. G. R. Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Temperature (°C):	0.2105	Thermometer ID	
	Received intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
	Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor:	
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST										Preservative Codes	
NW1	Soil	8-24-20			Chloride E300											
NW1	Soil	8-24-20			BTEX 8021											
SW1	Soil	8-24-20			TPH Modified Ext											
FL104'	Soil	8-24-20		4'	TPH TX1005											
FL204'	Soil	8-24-20		4'												
FL304'	Soil	8-24-20		4'												

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

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





## Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental &amp; Safety Solution, I

Date/ Time Received: 08.25.2020 11.15.00 AM

Work Order #: 670837

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.3
#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 buk container
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 08.26.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.26.2020





# Certificate of Analysis Summary 671116

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

**Project Name:** Cole State #10

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County, NM

**Date Received in Lab:** Thu 08.27.2020 11:40

**Report Date:** 08.31.2020 17:14

**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	671116-001	671116-002	671116-003	671116-004	671116-005	671116-006
	<i>Field Id:</i>	FL4 @4'	FL5 @4'	FL6 @4'	SWW #2	NEW #2	FL7 @ 4'
	<i>Depth:</i>	4- ft	4- ft	4- ft			4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.25.2020 00:00	08.25.2020 00:00	08.25.2020 00:00	08.25.2020 00:00	08.25.2020 00:00	08.25.2020 00:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	08.29.2020 14:30	08.29.2020 14:30	08.29.2020 14:30	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00
	<i>Analyzed:</i>	08.29.2020 22:36	08.29.2020 22:57	08.29.2020 23:17	08.29.2020 09:47	08.29.2020 10:08	08.29.2020 05:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00397 0.00397	<0.00398 0.00398	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	08.27.2020 17:35	08.27.2020 17:35	08.27.2020 17:35	08.27.2020 17:35	08.27.2020 17:35	08.27.2020 17:35
	<i>Analyzed:</i>	08.28.2020 00:19	08.28.2020 00:24	08.28.2020 00:29	08.28.2020 00:35	08.28.2020 00:40	08.28.2020 00:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		93.6 25.1	1090 24.9	1420 24.9	9.19 5.04	72.5 25.0	864 25.1
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00
	<i>Analyzed:</i>	08.29.2020 04:36	08.29.2020 04:56	08.29.2020 05:16	08.29.2020 05:36	08.29.2020 05:55	08.29.2020 06:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		1040 49.9	621 49.8	483 50.0	<50.0 50.0	<49.9 49.9	156 49.9
Motor Oil Range Hydrocarbons (MRO)		104 49.9	59.0 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9
Total TPH		1140 49.9	680 49.8	483 50.0	<50.0 50.0	<49.9 49.9	156 49.9

BRL - Below Reporting Limit

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

*Jessica Kramer*



# Certificate of Analysis Summary 671116

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

**Project Name:** Cole State #10

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County, NM

**Date Received in Lab:** Thu 08.27.2020 11:40

**Report Date:** 08.31.2020 17:14

**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	671116-007	671116-008	671116-009	671116-010	671116-011	671116-012
	<i>Field Id:</i>	FL8 @ 4'	FL9 @ 4'	FL10 @ 4'	FL11 @ 4'	FL12 @ 4'	FL13 @ 4'
	<i>Depth:</i>	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.25.2020 00:00	08.25.2020 00:00	08.25.2020 00:00	08.26.2020 00:00	08.26.2020 00:00	08.26.2020 00:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	08.28.2020 16:00	08.28.2020 16:00	08.29.2020 15:00	08.29.2020 15:00	08.29.2020 15:00	08.28.2020 16:00
	<i>Analyzed:</i>	08.29.2020 10:28	08.29.2020 10:49	08.30.2020 04:46	08.30.2020 05:07	08.30.2020 05:27	08.29.2020 11:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00396 0.00396
o-Xylene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	08.27.2020 17:35	08.27.2020 17:50	08.27.2020 17:50	08.27.2020 17:50	08.27.2020 17:50	08.27.2020 17:50
	<i>Analyzed:</i>	08.28.2020 00:50	08.28.2020 01:22	08.28.2020 01:38	08.28.2020 01:43	08.28.2020 01:48	08.28.2020 01:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1990 25.1	628 5.04	1690 24.9	1630 25.0	1720 50.1	1370 25.2
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00
	<i>Analyzed:</i>	08.29.2020 06:35	08.29.2020 07:14	08.29.2020 07:34	08.29.2020 07:54	08.29.2020 08:14	08.29.2020 08:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		137 50.0	71.9 49.8	958 50.0	1250 49.9	1980 50.0	141 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	89.1 50.0	94.1 49.9	119 50.0	<49.9 49.9
Total TPH		137 50.0	71.9 49.8	1050 50.0	1340 49.9	2100 50.0	141 49.9

BRL - Below Reporting Limit

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*Jessica Kramer*

# Certificate of Analysis Summary 671116

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

**Project Name: Cole State #10**

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County, NM

**Date Received in Lab:** Thu 08.27.2020 11:40  
**Report Date:** 08.31.2020 17:14  
**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	671116-013	671116-014	671116-015	671116-016	671116-017	
	<i>Field Id:</i>	FL14 @4'	FL15 @4'	SWW3	NEW3	SEW1	
	<i>Depth:</i>	4- ft	4- ft				
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	08.26.2020 00:00	08.26.2020 00:00	08.26.2020 00:00	08.26.2020 00:00	08.26.2020 00:00	
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	08.29.2020 15:00	08.29.2020 15:00	08.29.2020 14:30	08.29.2020 14:30	08.29.2020 14:30	
	<i>Analyzed:</i>	08.30.2020 05:48	08.30.2020 06:09	08.29.2020 17:59	08.29.2020 18:20	08.29.2020 18:41	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
Toluene		<0.00198 0.00198	0.00469 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
Ethylbenzene		<0.00198 0.00198	0.0433 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
m,p-Xylenes		<0.00397 0.00397	0.0700 0.00398	<0.00402 0.00402	<0.00398 0.00398	<0.00398 0.00398	
o-Xylene		<0.00198 0.00198	0.0435 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
Total Xylenes		<0.00198 0.00198	0.114 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
Total BTEX		<0.00198 0.00198	0.161 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	08.27.2020 17:50	08.27.2020 17:50	08.27.2020 17:50	08.27.2020 17:50	08.27.2020 17:50	
	<i>Analyzed:</i>	08.28.2020 02:09	08.28.2020 02:15	08.28.2020 08:35	08.28.2020 02:25	08.28.2020 02:30	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		1310 24.9	1190 24.8	11.3 4.98	262 25.2	9.78 5.02	
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	08.28.2020 16:00	
	<i>Analyzed:</i>	08.29.2020 08:53	08.29.2020 09:13	08.29.2020 09:33	08.29.2020 09:52	08.29.2020 10:12	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	69.5 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	
Diesel Range Organics (DRO)		300 49.9	1060 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	78.2 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	
Total TPH		300 49.9	1210 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	

BRL - Below Reporting Limit

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# **Analytical Report 671116**

**for**

## **Etech Environmental & Safety Solution, Inc**

**Project Manager: PM**

**Cole State #10**

**11465**

**08.31.2020**

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)



08.31.2020

Project Manager: **PM**

**Etech Environmental & Safety Solution, Inc**

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **671116**

**Cole State #10**

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) 671116. 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. 671116 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 671116****Etech Environmental & Safety Solution, Inc, Midland, TX**

Cole State #10

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
FL4 @4'	S	08.25.2020 00:00	4 ft	671116-001
FL5 @4'	S	08.25.2020 00:00	4 ft	671116-002
FL6 @4'	S	08.25.2020 00:00	4 ft	671116-003
SWW #2	S	08.25.2020 00:00	ft	671116-004
NEW #2	S	08.25.2020 00:00	ft	671116-005
FL7 @ 4'	S	08.25.2020 00:00	4 ft	671116-006
FL8 @ 4'	S	08.25.2020 00:00	4 ft	671116-007
FL9 @ 4'	S	08.25.2020 00:00	4 ft	671116-008
FL10 @ 4'	S	08.25.2020 00:00	4 ft	671116-009
FL11 @ 4'	S	08.26.2020 00:00	4 ft	671116-010
FL12 @ 4'	S	08.26.2020 00:00	4 ft	671116-011
FL13 @4'	S	08.26.2020 00:00	4 ft	671116-012
FL14 @4'	S	08.26.2020 00:00	4 ft	671116-013
FL15 @4'	S	08.26.2020 00:00	4 ft	671116-014
SWW3	S	08.26.2020 00:00	ft	671116-015
NEW3	S	08.26.2020 00:00	ft	671116-016
SEW1	S	08.26.2020 00:00	ft	671116-017

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: Cole State #10**Project ID: 11465  
Work Order Number(s): 671116Report Date: 08.31.2020  
Date Received: 08.27.2020**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3135897 BTEX by EPA 8021B

Lab Sample ID 671116-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 671116-004, -005, -006, -007, -008, -012.

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

Batch: LBA-3135908 BTEX by EPA 8021B

Lab Sample ID 671116-009 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 671116-009, -010, -011, -013, -014.

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





# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL4 @4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-001 Date Collected: 08.25.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:35 Basis: Wet Weight  
 Seq Number: 3135777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.6	25.1	mg/kg	08.28.2020 00:19		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 04:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	1040	49.9	mg/kg	08.29.2020 04:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	104	49.9	mg/kg	08.29.2020 04:36		1
Total TPH	PHC635	1140	49.9	mg/kg	08.29.2020 04:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	08.29.2020 04:36	
o-Terphenyl	84-15-1	119	%	70-130	08.29.2020 04:36	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL4 @4'**  
Lab Sample Id: 671116-001

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40  
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: AMF

Analyst: AMF

Seq Number: 3135907

Prep Method: SW5035A

% Moisture:

Date Prep: 08.29.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.2020 22:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.2020 22:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.2020 22:36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.29.2020 22:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.2020 22:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.2020 22:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.2020 22:36	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.29.2020 22:36		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.29.2020 22:36		



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL5@4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-002 Date Collected: 08.25.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:35 Basis: Wet Weight  
 Seq Number: 3135777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>1090</b>	24.9	mg/kg	08.28.2020 00:24		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.29.2020 04:56	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>621</b>	49.8	mg/kg	08.29.2020 04:56		1
<b>Motor Oil Range Hydrocarbons (MRO)</b>	PHCG2835	<b>59.0</b>	49.8	mg/kg	08.29.2020 04:56		1
<b>Total TPH</b>	PHC635	<b>680</b>	49.8	mg/kg	08.29.2020 04:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	08.29.2020 04:56	
o-Terphenyl	84-15-1	112	%	70-130	08.29.2020 04:56	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL5@4'**  
Lab Sample Id: 671116-002

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40  
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 14:30

Basis: Wet Weight

Seq Number: 3135907

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.29.2020 22:57	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.29.2020 22:57	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.29.2020 22:57	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.29.2020 22:57	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.29.2020 22:57	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.29.2020 22:57	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.29.2020 22:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	08.29.2020 22:57	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.29.2020 22:57	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL6 @4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-003 Date Collected: 08.25.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:35 Basis: Wet Weight  
 Seq Number: 3135777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1420	24.9	mg/kg	08.28.2020 00:29		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 05:16	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>483</b>	50.0	mg/kg	08.29.2020 05:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.29.2020 05:16	U	1
<b>Total TPH</b>	PHC635	<b>483</b>	50.0	mg/kg	08.29.2020 05:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	08.29.2020 05:16	
o-Terphenyl	84-15-1	110	%	70-130	08.29.2020 05:16	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL6 @4'**  
Lab Sample Id: 671116-003

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40  
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 14:30

Basis: Wet Weight

Seq Number: 3135907

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.2020 23:17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.2020 23:17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.2020 23:17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.2020 23:17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.2020 23:17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.2020 23:17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.2020 23:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	08.29.2020 23:17	
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.29.2020 23:17	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **SWW #2**  
Lab Sample Id: 671116-004

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3135777

Prep Method: E300P

% Moisture:

Date Prep: 08.27.2020 17:35

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.19	5.04	mg/kg	08.28.2020 00:35		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3135950

Prep Method: SW8015P

% Moisture:

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 05:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.29.2020 05:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.29.2020 05:36	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.29.2020 05:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	08.29.2020 05:36	
o-Terphenyl	84-15-1	104	%	70-130	08.29.2020 05:36	





# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **SWW #2**  
Lab Sample Id: 671116-004

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135897

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.2020 09:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.2020 09:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.2020 09:47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.29.2020 09:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.2020 09:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.2020 09:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.2020 09:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.29.2020 09:47	
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.29.2020 09:47	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **NEW #2**  
Lab Sample Id: 671116-005

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 08.27.2020 17:35

Basis: Wet Weight

Seq Number: 3135777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	72.5	25.0	mg/kg	08.28.2020 00:40		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 05:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.29.2020 05:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 05:55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.29.2020 05:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	08.29.2020 05:55	
o-Terphenyl	84-15-1	90	%	70-130	08.29.2020 05:55	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **NEW #2**  
Lab Sample Id: 671116-005

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135897

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.2020 10:08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.2020 10:08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.2020 10:08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.2020 10:08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.2020 10:08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.2020 10:08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.2020 10:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.29.2020 10:08	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.29.2020 10:08	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL7 @ 4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-006 Date Collected: 08.25.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:35 Basis: Wet Weight  
 Seq Number: 3135777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	864	25.1	mg/kg	08.28.2020 00:45		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 06:15	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	156	49.9	mg/kg	08.29.2020 06:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 06:15	U	1
<b>Total TPH</b>	PHC635	156	49.9	mg/kg	08.29.2020 06:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	08.29.2020 06:15	
o-Terphenyl	84-15-1	96	%	70-130	08.29.2020 06:15	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL7 @ 4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-006

Date Collected: 08.25.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135897

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.2020 05:21	UX	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.2020 05:21	UX	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.2020 05:21	UX	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.29.2020 05:21	UX	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.2020 05:21	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.2020 05:21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.2020 05:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.29.2020 05:21	
4-Bromofluorobenzene	460-00-4	116	%	70-130	08.29.2020 05:21	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL8 @ 4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-007 Date Collected: 08.25.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:35 Basis: Wet Weight  
 Seq Number: 3135777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1990	25.1	mg/kg	08.28.2020 00:50		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 06:35	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	137	50.0	mg/kg	08.29.2020 06:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.29.2020 06:35	U	1
<b>Total TPH</b>	PHC635	137	50.0	mg/kg	08.29.2020 06:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	08.29.2020 06:35	
o-Terphenyl	84-15-1	103	%	70-130	08.29.2020 06:35	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL8 @ 4'**  
Lab Sample Id: 671116-007

Matrix: Soil  
Date Collected: 08.25.2020 00:00

Date Received: 08.27.2020 11:40  
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: AMF

Analyst: AMF

Seq Number: 3135897

Date Prep: 08.28.2020 16:00

Prep Method: SW5035A

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.2020 10:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.2020 10:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.2020 10:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.2020 10:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.2020 10:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.2020 10:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.2020 10:28	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.29.2020 10:28		
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.29.2020 10:28		





# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL9 @ 4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-008 Date Collected: 08.25.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:50 Basis: Wet Weight  
 Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	628	5.04	mg/kg	08.28.2020 01:22		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.29.2020 07:14	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>71.9</b>	49.8	mg/kg	08.29.2020 07:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.29.2020 07:14	U	1
<b>Total TPH</b>	PHC635	<b>71.9</b>	49.8	mg/kg	08.29.2020 07:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	08.29.2020 07:14	
o-Terphenyl	84-15-1	101	%	70-130	08.29.2020 07:14	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL9 @ 4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-008

Date Collected: 08.25.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135897

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.29.2020 10:49	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.29.2020 10:49	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.29.2020 10:49	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.29.2020 10:49	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.29.2020 10:49	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.29.2020 10:49	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.29.2020 10:49	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.29.2020 10:49		
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.29.2020 10:49		



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL10 @ 4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-009 Date Collected: 08.25.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:50 Basis: Wet Weight  
 Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1690	24.9	mg/kg	08.28.2020 01:38		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 07:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	958	50.0	mg/kg	08.29.2020 07:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	89.1	50.0	mg/kg	08.29.2020 07:34		1
Total TPH	PHC635	1050	50.0	mg/kg	08.29.2020 07:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	08.29.2020 07:34	
o-Terphenyl	84-15-1	115	%	70-130	08.29.2020 07:34	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL10 @ 4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-009

Date Collected: 08.25.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 15:00

Basis: Wet Weight

Seq Number: 3135908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.30.2020 04:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.30.2020 04:46	UX	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.30.2020 04:46	UX	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.30.2020 04:46	UX	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.30.2020 04:46	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.30.2020 04:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.30.2020 04:46	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.30.2020 04:46		
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.30.2020 04:46		



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL11 @ 4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-010 Date Collected: 08.26.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:50 Basis: Wet Weight  
 Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1630	25.0	mg/kg	08.28.2020 01:43		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 07:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	1250	49.9	mg/kg	08.29.2020 07:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	94.1	49.9	mg/kg	08.29.2020 07:54		1
Total TPH	PHC635	1340	49.9	mg/kg	08.29.2020 07:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.29.2020 07:54	
o-Terphenyl	84-15-1	127	%	70-130	08.29.2020 07:54	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL11 @ 4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-010

Date Collected: 08.26.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 15:00

Basis: Wet Weight

Seq Number: 3135908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.30.2020 05:07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.30.2020 05:07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.30.2020 05:07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.30.2020 05:07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.30.2020 05:07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.30.2020 05:07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.30.2020 05:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.30.2020 05:07	
4-Bromofluorobenzene	460-00-4	127	%	70-130	08.30.2020 05:07	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL12 @ 4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-011 Date Collected: 08.26.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:50 Basis: Wet Weight  
 Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1720	50.1	mg/kg	08.28.2020 01:48		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 08:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	1980	50.0	mg/kg	08.29.2020 08:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	119	50.0	mg/kg	08.29.2020 08:14		1
Total TPH	PHC635	2100	50.0	mg/kg	08.29.2020 08:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	08.29.2020 08:14	
o-Terphenyl	84-15-1	123	%	70-130	08.29.2020 08:14	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL12 @ 4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-011

Date Collected: 08.26.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 15:00

Basis: Wet Weight

Seq Number: 3135908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.30.2020 05:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.30.2020 05:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.30.2020 05:27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.30.2020 05:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.30.2020 05:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.30.2020 05:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.30.2020 05:27	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.30.2020 05:27		
4-Bromofluorobenzene	460-00-4	128	%	70-130	08.30.2020 05:27		





# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL13 @4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-012 Date Collected: 08.26.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:50 Basis: Wet Weight  
 Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1370	25.2	mg/kg	08.28.2020 01:54		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 08:34	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	141	49.9	mg/kg	08.29.2020 08:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 08:34	U	1
<b>Total TPH</b>	PHC635	141	49.9	mg/kg	08.29.2020 08:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	08.29.2020 08:34	
o-Terphenyl	84-15-1	100	%	70-130	08.29.2020 08:34	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL13 @4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-012

Date Collected: 08.26.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135897

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.29.2020 11:10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.29.2020 11:10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.29.2020 11:10	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.29.2020 11:10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.29.2020 11:10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.29.2020 11:10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.29.2020 11:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.29.2020 11:10	
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.29.2020 11:10	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL14 @4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-013 Date Collected: 08.26.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:50 Basis: Wet Weight  
 Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1310	24.9	mg/kg	08.28.2020 02:09		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 08:53	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>300</b>	49.9	mg/kg	08.29.2020 08:53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 08:53	U	1
<b>Total TPH</b>	PHC635	<b>300</b>	49.9	mg/kg	08.29.2020 08:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	08.29.2020 08:53	
o-Terphenyl	84-15-1	107	%	70-130	08.29.2020 08:53	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL14 @4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-013

Date Collected: 08.26.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 15:00

Basis: Wet Weight

Seq Number: 3135908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.30.2020 05:48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.30.2020 05:48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.30.2020 05:48	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.30.2020 05:48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.30.2020 05:48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.30.2020 05:48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.30.2020 05:48	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.30.2020 05:48		
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.30.2020 05:48		



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL15 @4'** Matrix: Soil Date Received: 08.27.2020 11:40  
 Lab Sample Id: 671116-014 Date Collected: 08.26.2020 00:00 Sample Depth: 4 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: SPC % Moisture:  
 Analyst: SPC Date Prep: 08.27.2020 17:50 Basis: Wet Weight  
 Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1190	24.8	mg/kg	08.28.2020 02:15		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DVM % Moisture:  
 Analyst: ARM Date Prep: 08.28.2020 16:00 Basis: Wet Weight  
 Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	69.5	50.0	mg/kg	08.29.2020 09:13		1
Diesel Range Organics (DRO)	C10C28DRO	1060	50.0	mg/kg	08.29.2020 09:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	78.2	50.0	mg/kg	08.29.2020 09:13		1
Total TPH	PHC635	1210	50.0	mg/kg	08.29.2020 09:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	08.29.2020 09:13	
o-Terphenyl	84-15-1	116	%	70-130	08.29.2020 09:13	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **FL15 @4'**

Matrix: Soil

Date Received: 08.27.2020 11:40

Lab Sample Id: 671116-014

Date Collected: 08.26.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 15:00

Basis: Wet Weight

Seq Number: 3135908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.30.2020 06:09	U	1
<b>Toluene</b>	108-88-3	<b>0.00469</b>	0.00199	mg/kg	08.30.2020 06:09		1
<b>Ethylbenzene</b>	100-41-4	<b>0.0433</b>	0.00199	mg/kg	08.30.2020 06:09		1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.0700</b>	0.00398	mg/kg	08.30.2020 06:09		1
<b>o-Xylene</b>	95-47-6	<b>0.0435</b>	0.00199	mg/kg	08.30.2020 06:09		1
<b>Total Xylenes</b>	1330-20-7	<b>0.114</b>	0.00199	mg/kg	08.30.2020 06:09		1
<b>Total BTEX</b>		<b>0.161</b>	0.00199	mg/kg	08.30.2020 06:09		1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.30.2020 06:09		
4-Bromofluorobenzene	460-00-4	116	%	70-130	08.30.2020 06:09		



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **SWW3**  
Lab Sample Id: 671116-015

Matrix: Soil  
Date Collected: 08.26.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 08.27.2020 17:50

Basis: Wet Weight

Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.3	4.98	mg/kg	08.28.2020 08:35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 09:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.29.2020 09:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.29.2020 09:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.29.2020 09:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	08.29.2020 09:33	
o-Terphenyl	84-15-1	86	%	70-130	08.29.2020 09:33	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **SWW3**  
Lab Sample Id: 671116-015

Matrix: Soil  
Date Collected: 08.26.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 14:30

Basis: Wet Weight

Seq Number: 3135907

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.2020 17:59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.2020 17:59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.2020 17:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.2020 17:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.2020 17:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.2020 17:59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.2020 17:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	70-130	08.29.2020 17:59	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.29.2020 17:59	





# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **NEW3**  
Lab Sample Id: 671116-016

Matrix: Soil  
Date Collected: 08.26.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 08.27.2020 17:50

Basis: Wet Weight

Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	262	25.2	mg/kg	08.28.2020 02:25		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 09:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.29.2020 09:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 09:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.29.2020 09:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	08.29.2020 09:52	
o-Terphenyl	84-15-1	90	%	70-130	08.29.2020 09:52	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **NEW3**  
Lab Sample Id: 671116-016

Matrix: Soil  
Date Collected: 08.26.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 14:30

Basis: Wet Weight

Seq Number: 3135907

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.2020 18:20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.2020 18:20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.2020 18:20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.2020 18:20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.2020 18:20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.2020 18:20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.2020 18:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.29.2020 18:20	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.29.2020 18:20	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **SEW1**  
Lab Sample Id: 671116-017

Matrix: Soil  
Date Collected: 08.26.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 08.27.2020 17:50

Basis: Wet Weight

Seq Number: 3135788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.78	5.02	mg/kg	08.28.2020 02:30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.28.2020 16:00

Basis: Wet Weight

Seq Number: 3135950

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 10:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.29.2020 10:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 10:12	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.29.2020 10:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	08.29.2020 10:12	
o-Terphenyl	84-15-1	92	%	70-130	08.29.2020 10:12	



# Certificate of Analytical Results 671116

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

Cole State #10

Sample Id: **SEW1**  
Lab Sample Id: 671116-017

Matrix: Soil  
Date Collected: 08.26.2020 00:00

Date Received: 08.27.2020 11:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.29.2020 14:30

Basis: Wet Weight

Seq Number: 3135907

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.2020 18:41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.2020 18:41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.2020 18:41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.2020 18:41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.2020 18:41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.2020 18:41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.2020 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.29.2020 18:41	
4-Bromofluorobenzene	460-00-4	121	%	70-130	08.29.2020 18:41	

## 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

Cole State #10

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135777

MB Sample Id: 7710321-1-BLK

Matrix: Solid

LCS Sample Id: 7710321-1-BKS

Prep Method: E300P

Date Prep: 08.27.2020

LCSD Sample Id: 7710321-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	257	103	250	100	90-110	3	20	mg/kg	08.27.2020 22:18	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135788

MB Sample Id: 7710323-1-BLK

Matrix: Solid

LCS Sample Id: 7710323-1-BKS

Prep Method: E300P

Date Prep: 08.27.2020

LCSD Sample Id: 7710323-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	250	100	248	99	90-110	1	20	mg/kg	08.28.2020 01:11	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135777

Parent Sample Id: 671070-005

Matrix: Soil

MS Sample Id: 671070-005 S

Prep Method: E300P

Date Prep: 08.27.2020

MSD Sample Id: 671070-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5070	2490	7730	107	7740	107	90-110	0	20	mg/kg	08.27.2020 22:33	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135777

Parent Sample Id: 671103-002

Matrix: Soil

MS Sample Id: 671103-002 S

Prep Method: E300P

Date Prep: 08.27.2020

MSD Sample Id: 671103-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8190	2480	10900	109	10900	109	90-110	0	20	mg/kg	08.28.2020 11:23	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135788

Parent Sample Id: 671116-008

Matrix: Soil

MS Sample Id: 671116-008 S

Prep Method: E300P

Date Prep: 08.27.2020

MSD Sample Id: 671116-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	628	252	855	90	857	91	90-110	0	20	mg/kg	08.28.2020 01:27	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3135788

Parent Sample Id: 671123-001

Matrix: Soil

MS Sample Id: 671123-001 S

Prep Method: E300P

Date Prep: 08.27.2020

MSD Sample Id: 671123-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3450	1250	4770	106	4780	106	90-110	0	20	mg/kg	08.28.2020 02:41	

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

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

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

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



## Etech Environmental & Safety Solution, Inc

Cole State #10

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3135950

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.28.2020

MB Sample Id: 7710460-1-BLK

LCS Sample Id: 7710460-1-BKS

LCSD Sample Id: 7710460-1-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	1100	110	1060	106	70-130	4	20	mg/kg	08.29.2020 02:18	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1110	111	70-130	2	20	mg/kg	08.29.2020 02:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		121		118		70-130	%	08.29.2020 02:18
o-Terphenyl	119		124		117		70-130	%	08.29.2020 02:18

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3135950

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.28.2020

MB Sample Id: 7710460-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.29.2020 01:58	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3135950

Matrix: Soil

Prep Method: SW8015P

Date Prep: 08.28.2020

Parent Sample Id: 671123-001

MS Sample Id: 671123-001 S

MSD Sample Id: 671123-001 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	884	89	901	90	70-130	2	20	mg/kg	08.29.2020 03:17	
Diesel Range Organics (DRO)	<49.9	997	965	97	980	98	70-130	2	20	mg/kg	08.29.2020 03:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		109		70-130	%	08.29.2020 03:17
o-Terphenyl	109		111		70-130	%	08.29.2020 03:17

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

Seq Number: 3135897

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.28.2020

MB Sample Id: 7710439-1-BLK

LCS Sample Id: 7710439-1-BKS

LCSD Sample Id: 7710439-1-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	0.0918	92	0.0864	86	70-130	6	35	mg/kg	08.29.2020 03:01	
Toluene	<0.00200	0.100	0.0807	81	0.0767	77	70-130	5	35	mg/kg	08.29.2020 03:01	
Ethylbenzene	<0.00200	0.100	0.0803	80	0.0757	76	70-130	6	35	mg/kg	08.29.2020 03:01	
m,p-Xylenes	<0.00400	0.200	0.158	79	0.149	75	70-130	6	35	mg/kg	08.29.2020 03:01	
o-Xylene	<0.00200	0.100	0.0822	82	0.0778	78	70-130	6	35	mg/kg	08.29.2020 03:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		100		70-130	%	08.29.2020 03:01
4-Bromofluorobenzene	102		102		99		70-130	%	08.29.2020 03:01

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

### Cole State #10

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

Seq Number: 3135907

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.29.2020

MB Sample Id: 7710446-1-BLK

LCS Sample Id: 7710446-1-BKS

LCSD Sample Id: 7710446-1-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	0.102	102	0.100	100	70-130	2	35	mg/kg	08.29.2020 15:01	
Toluene	<0.00200	0.100	0.0887	89	0.0920	92	70-130	4	35	mg/kg	08.29.2020 15:01	
Ethylbenzene	<0.00200	0.100	0.0881	88	0.0951	95	70-130	8	35	mg/kg	08.29.2020 15:01	
m,p-Xylenes	<0.00400	0.200	0.172	86	0.190	95	70-130	10	35	mg/kg	08.29.2020 15:01	
o-Xylene	<0.00200	0.100	0.0862	86	0.0947	95	70-130	9	35	mg/kg	08.29.2020 15:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		102		100		70-130	%	08.29.2020 15:01
4-Bromofluorobenzene	88		96		109		70-130	%	08.29.2020 15:01

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

Seq Number: 3135908

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.29.2020

MB Sample Id: 7710447-1-BLK

LCS Sample Id: 7710447-1-BKS

LCSD Sample Id: 7710447-1-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	0.0899	90	0.0891	89	70-130	1	35	mg/kg	08.30.2020 02:24	
Toluene	<0.00200	0.100	0.0845	85	0.0836	84	70-130	1	35	mg/kg	08.30.2020 02:24	
Ethylbenzene	<0.00200	0.100	0.0874	87	0.0867	87	70-130	1	35	mg/kg	08.30.2020 02:24	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.177	89	70-130	0	35	mg/kg	08.30.2020 02:24	
o-Xylene	<0.00200	0.100	0.0913	91	0.0915	92	70-130	0	35	mg/kg	08.30.2020 02:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		99		70-130	%	08.30.2020 02:24
4-Bromofluorobenzene	101		117		118		70-130	%	08.30.2020 02:24

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

Seq Number: 3135897

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.28.2020

Parent Sample Id: 671116-006

MS Sample Id: 671116-006 S

MSD Sample Id: 671116-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0625	63	0.0637	64	70-130	2	35	mg/kg	08.29.2020 03:42	X
Toluene	<0.00198	0.0992	0.0541	55	0.0545	55	70-130	1	35	mg/kg	08.29.2020 03:42	X
Ethylbenzene	<0.00198	0.0992	0.0493	50	0.0490	49	70-130	1	35	mg/kg	08.29.2020 03:42	X
m,p-Xylenes	<0.00397	0.198	0.0947	48	0.0876	44	70-130	8	35	mg/kg	08.29.2020 03:42	X
o-Xylene	<0.00198	0.0992	0.0528	53	0.0527	53	70-130	0	35	mg/kg	08.29.2020 03:42	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		70-130	%	08.29.2020 03:42
4-Bromofluorobenzene	103		101		70-130	%	08.29.2020 03:42

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

Cole State #10

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

Seq Number: 3135907

Parent Sample Id: 671095-004

Matrix: Soil

MS Sample Id: 671095-004 S

Prep Method: SW5035A

Date Prep: 08.29.2020

MSD Sample Id: 671095-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0577	58	0.0603	61	70-130	4	35	mg/kg	08.29.2020 15:43	X
Toluene	<0.00200	0.0998	0.0514	52	0.0551	55	70-130	7	35	mg/kg	08.29.2020 15:43	X
Ethylbenzene	<0.00200	0.0998	0.0502	50	0.0551	55	70-130	9	35	mg/kg	08.29.2020 15:43	X
m,p-Xylenes	<0.00399	0.200	0.103	52	0.111	56	70-130	7	35	mg/kg	08.29.2020 15:43	X
o-Xylene	<0.00200	0.0998	0.0532	53	0.0576	58	70-130	8	35	mg/kg	08.29.2020 15:43	X

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		70-130	%	08.29.2020 15:43
4-Bromofluorobenzene	107		112		70-130	%	08.29.2020 15:43

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

Seq Number: 3135908

Parent Sample Id: 671116-009

Matrix: Soil

MS Sample Id: 671116-009 S

Prep Method: SW5035A

Date Prep: 08.29.2020

MSD Sample Id: 671116-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0768	77	0.0729	73	70-130	5	35	mg/kg	08.30.2020 03:05	
Toluene	<0.00198	0.0992	0.0602	61	0.0598	60	70-130	1	35	mg/kg	08.30.2020 03:05	X
Ethylbenzene	<0.00198	0.0992	0.0419	42	0.0448	45	70-130	7	35	mg/kg	08.30.2020 03:05	X
m,p-Xylenes	<0.00397	0.198	0.0696	35	0.0837	42	70-130	18	35	mg/kg	08.30.2020 03:05	X
o-Xylene	<0.00198	0.0992	0.0528	53	0.0541	54	70-130	2	35	mg/kg	08.30.2020 03:05	X

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		102		70-130	%	08.30.2020 03:05
4-Bromofluorobenzene	119		116		70-130	%	08.30.2020 03:05

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

**XENCO**

## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 699-6701  
 Atlanta, GA (770) 449-8800

Work Order No:

1071114

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## Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐  
 State of Project: ☐ Level II ☐ PST/UST ☐ TRR ☐ Level I ☐  
 Reporting Level: ☐ Level II ☐ Level I ☐  
 Deliverables: EDD ☐ ADAPT ☐ Other: ☐

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

Project Name:	Cole State #10	Turn Around	
Project Number:	11465	Routine:	<input checked="" type="checkbox"/>
Project Location:	Lea County, NM	Rush:	<input type="checkbox"/>
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	69.05	Thermometer ID					
Received Inact:	Yes	No	Correction Factor:				
Cooler Custody Seals:	Yes	No	Total Containers:				
Sample Custody Seals:	Yes	No					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	ANALYSIS REQUEST	Preservative Codes
FL404'	Soil	8-25-20		4'	Chloride E300		HNO3: HN
FL504'	Soil	8-25-20		4'	BTEX 8021		H2SO4: H2
FL604'	Soil	8-25-20		4'	TPH Modified Ext		HCL: HL
FL704'	Soil	8-25-20		4'	TPH TX1005		None: NO
FL804'	Soil	8-25-20		4'			NaOH: Na
FL904'	Soil	8-25-20		4'			MeOH: Me
FL1004'	Soil	8-25-20		4'			Zn Acetate+ NaOH: Zn
FL1104'	Soil	8-25-20		4'			
Total 200.7 / 6010	200.8 / 6020:						

Circle Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn  
 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 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
<i>Joel Lowry</i>	<i>Egon Cault</i>	8-26-20 9:10	<i>Egon Cault</i>	<i>B. B. B.</i>	8/27/20



## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-8800

Work Order No:

071114

www.xenco.com Page 2 of 2

## Work Order Comments

Program: ☐ PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level: ☐ Level I ☐ PST/US ☐ TRR ☐ Level II ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

## ANALYSIS REQUEST

Project Name: Cole State #10 Turn Around: ☒

Project Number: 11465 Routine: ☒

Project Location: Lee County, NM Rush: ☐

Sampler's Name: Miguel Ramirez Due Date:

PO #:

**SAMPLE RECEIPT**

Temp Blank: ☒ Yes ☒ No Wet Ice: ☒ Yes ☒ No

Received Inact: ☒ Yes ☒ No Thermometer ID:

Cooler Custody Seals: ☒ Yes ☒ No Correction Factor:

Sample Custody Seals: ☒ Yes ☒ No Total Containers:

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005	Preservative Codes
FL1204'	So.1	8-26-20		4'	1	X	X	X	X	HN03: HN
FL1304'	So.1	8-26-20		4'	1	X	X	X	X	H2S04: H2
FL1404'	So.1	8-26-20		4'	1	X	X	X	X	HCL: HL
FL1504'	So.1	8-26-20		4'	1	X	X	X	X	None: NO
SWW3	So.1	8-26-20		4'	1	X	X	X	X	NaOH: Na
NEW3	So.1	8-26-20		4'	1	X	X	X	X	MeOH: Me
SEW1	So.1	8-26-20		4'	1	X	X	X	X	Zn Acetate+ NaOH: Zn

## Sample Comments

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

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

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

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental &amp; Safety Solution, I

Date/ Time Received: 08.27.2020 11.40.00 AM

Work Order #: 671116

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

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

BTEX was in bulk container

\* 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: 08.27.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.28.2020

# Certificate of Analysis Summary 672125

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

**Project Name: Cole State #10**

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County, New Mexico

**Date Received in Lab:** Wed 09.09.2020 12:50  
**Report Date:** 09.10.2020 11:19  
**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	672125-001		672125-002		672125-003		672125-004		672125-005		672125-006	
	<i>Field Id:</i>	NWW1B		SWW1B		FL3 @5'		FL4 @5'		FL11 @5'		FL12 @5'	
	<i>Depth:</i>					5- ft		5- ft		5- ft		5- ft	
	<i>Matrix:</i>	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	<i>Sampled:</i>	09.09.2020 00:00		09.09.2020 00:00		09.09.2020 00:00		09.09.2020 00:00		09.09.2020 00:00		09.09.2020 00:00	
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	09.09.2020 14:10		09.09.2020 14:10		09.09.2020 14:10		09.09.2020 14:10		09.09.2020 14:10		09.09.2020 14:10	
	<i>Analyzed:</i>	09.09.2020 14:35		09.09.2020 14:54		09.09.2020 15:14		09.09.2020 15:34		09.09.2020 15:54		09.09.2020 16:15	
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.2	50.2
Diesel Range Organics (DRO)		<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.2	50.2
Total TPH		<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.2	50.2

BRL - Below Reporting Limit

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





# Certificate of Analysis Summary 672125

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

**Project Name: Cole State #10**

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County, New Mexico

**Date Received in Lab:** Wed 09.09.2020 12:50  
**Report Date:** 09.10.2020 11:19  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b>	672125-007					
	<b>Field Id:</b>	FL15 @5'					
	<b>Depth:</b>	5- ft					
	<b>Matrix:</b>	SOIL					
	<b>Sampled:</b>	09.09.2020 00:00					
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	09.09.2020 14:10					
	<b>Analyzed:</b>	09.09.2020 16:35					
	<b>Units/RL:</b>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0					
Diesel Range Organics (DRO)		<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0					
Total TPH		<50.0 50.0					

BRL - Below Reporting Limit

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



# **Analytical Report 672125**

**for**

## **Etech Environmental & Safety Solution, Inc**

**Project Manager: PM**

**Cole State #10**

**11465**

**09.10.2020**

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 (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)



09.10.2020

Project Manager: **PM**

**Etech Environmental & Safety Solution, Inc**

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **672125**

**Cole State #10**

Project Address: Lea County, New Mexico

**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) 672125. 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. 672125 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 672125****Etech Environmental & Safety Solution, Inc, Midland, TX**

Cole State #10

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NWW1B	S	09.09.2020 00:00		672125-001
SWW1B	S	09.09.2020 00:00		672125-002
FL3 @5'	S	09.09.2020 00:00	5 ft	672125-003
FL4 @5'	S	09.09.2020 00:00	5 ft	672125-004
FL11 @5'	S	09.09.2020 00:00	5 ft	672125-005
FL12 @5'	S	09.09.2020 00:00	5 ft	672125-006
FL15 @5'	S	09.09.2020 00:00	5 ft	672125-007



## CASE NARRATIVE

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

***Project Name: Cole State #10***

Project ID: 11465  
Work Order Number(s): 672125

Report Date: 09.10.2020  
Date Received: 09.09.2020

---

**Sample receipt non conformances and comments:**

---

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

None



# Certificate of Analytical Results 672125

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

Cole State #10

Sample Id: **NWW1B**  
Lab Sample Id: 672125-001

Matrix: Soil  
Date Collected: 09.09.2020 00:00

Date Received: 09.09.2020 12:50

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 09.09.2020 14:10

Basis: Wet Weight

Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.09.2020 14:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.09.2020 14:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.09.2020 14:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.09.2020 14:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	09.09.2020 14:35	
o-Terphenyl	84-15-1	118	%	70-135	09.09.2020 14:35	



# Certificate of Analytical Results 672125

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

Cole State #10

Sample Id: **SWW1B**  
Lab Sample Id: 672125-002

Matrix: Soil  
Date Collected: 09.09.2020 00:00

Date Received: 09.09.2020 12:50

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 09.09.2020 14:10

Basis: Wet Weight

Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.09.2020 14:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.09.2020 14:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.09.2020 14:54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.09.2020 14:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	09.09.2020 14:54	
o-Terphenyl	84-15-1	122	%	70-135	09.09.2020 14:54	



# Certificate of Analytical Results 672125

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

Cole State #10

Sample Id: **FL3 @5'** Matrix: Soil Date Received: 09.09.2020 12:50  
 Lab Sample Id: 672125-003 Date Collected: 09.09.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight  
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.09.2020 15:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.09.2020 15:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.09.2020 15:14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.09.2020 15:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	09.09.2020 15:14	
o-Terphenyl	84-15-1	116	%	70-135	09.09.2020 15:14	



# Certificate of Analytical Results 672125

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

Cole State #10

Sample Id: **FL4 @5'** Matrix: Soil Date Received: 09.09.2020 12:50  
 Lab Sample Id: 672125-004 Date Collected: 09.09.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight  
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.09.2020 15:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.09.2020 15:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.09.2020 15:34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.09.2020 15:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	09.09.2020 15:34	
o-Terphenyl	84-15-1	115	%	70-135	09.09.2020 15:34	



# Certificate of Analytical Results 672125

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

Cole State #10

Sample Id: **FL11 @5'** Matrix: Soil Date Received: 09.09.2020 12:50  
 Lab Sample Id: 672125-005 Date Collected: 09.09.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight  
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.09.2020 15:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.09.2020 15:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.09.2020 15:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.09.2020 15:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	09.09.2020 15:54	
o-Terphenyl	84-15-1	114	%	70-135	09.09.2020 15:54	



# Certificate of Analytical Results 672125

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

Cole State #10

Sample Id: **FL12 @5'**

Matrix: Soil

Date Received: 09.09.2020 12:50

Lab Sample Id: 672125-006

Date Collected: 09.09.2020 00:00

Sample Depth: 5 ft

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 09.09.2020 14:10

Basis: Wet Weight

Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.09.2020 16:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.09.2020 16:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.09.2020 16:15	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.09.2020 16:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	09.09.2020 16:15	
o-Terphenyl	84-15-1	113	%	70-135	09.09.2020 16:15	





# Certificate of Analytical Results 672125

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

Cole State #10

Sample Id: **FL15 @5'** Matrix: Soil Date Received: 09.09.2020 12:50  
 Lab Sample Id: 672125-007 Date Collected: 09.09.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight  
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.09.2020 16:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.09.2020 16:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.09.2020 16:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.09.2020 16:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	09.09.2020 16:35	
o-Terphenyl	84-15-1	115	%	70-135	09.09.2020 16:35	

## 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

### Cole State #10

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136684

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.09.2020

MB Sample Id: 7711004-1-BLK

LCS Sample Id: 7711004-1-BKS

LCSD Sample Id: 7711004-1-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	898	90	860	86	70-135	4	35	mg/kg	09.09.2020 10:12	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	973	97	70-135	4	35	mg/kg	09.09.2020 10:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		122		115		70-135	%	09.09.2020 10:12
o-Terphenyl	101		117		112		70-135	%	09.09.2020 10:12

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136684

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.09.2020

MB Sample Id: 7711004-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.09.2020 09:51	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136684

Matrix: Soil

Prep Method: SW8015P

Date Prep: 09.09.2020

Parent Sample Id: 672074-001

MS Sample Id: 672074-001 S

MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	899	90	897	90	70-135	0	35	mg/kg	09.09.2020 12:11	
Diesel Range Organics (DRO)	<50.1	1000	1030	103	997	100	70-135	3	35	mg/kg	09.09.2020 12:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		127		70-135	%	09.09.2020 12:11
o-Terphenyl	127		133		70-135	%	09.09.2020 12:11

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

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

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

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





## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 508-3334  
 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) 899-6701  
 Atlanta, GA (770) 449-8800

Work Order No: 1632125

www.xenco.com Page 1 of 1

## Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐  
 State of Project:

Reporting Level ☐ Level I ☐ PST/UST ☐ TRR ☐ Level II ☐  
 Deliverables: EDD ☐ ADAPT ☐ 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 Comments

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elect Environmental & Safety	Company Name:	Grizzly
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@electchem.com + Client
Project Name:	Old State #10	Turn Around	
Project Number:	11465	Routine:	<input type="checkbox"/>
Project Location:	Lea County, NM	Rush:	<input checked="" type="checkbox"/>
Sample's Name:	Miguel R. Amador	Due Date:	
PO #:			

SAMPLE RECEIPT	
Temperature (°C):	5.31/5.0
Received In tact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Thermometer ID:	THM007
Correction Factor:	-0.2
Total Containers:	7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005	ANALYSIS REQUEST	Preservative Codes
NW1B	Soil	9-9-20		1'							
SW1B	Soil	9-9-20		1'							
FL305'	Soil	9-9-20		5'							
FL405'	Soil	9-9-20		5'							
FL105'	Soil	9-9-20		5'							
FL1205'	Soil	9-9-20		5'							
FL1505'	Soil	9-9-20		5'							

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

TCCLP / 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 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.

1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

## Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental &amp; Safety Solution, I

Date/ Time Received: 09.09.2020 12.50.00 PM

Work Order #: 672125

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T\_NM\_007

## Sample Receipt Checklist

## Comments

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



Cloe Clifton

Date: 09.09.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.10.2020



# Certificate of Analysis Summary 672280

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

**Project Name: Cole Stute #10**

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County, New Mexico

**Date Received in Lab:** Thu 09.10.2020 15:28

**Report Date:** 09.11.2020 10:57

**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	672280-001	672280-002	672280-003	672280-004	672280-005	672280-006
	<i>Field Id:</i>	FL 16 @ 5'	FL 17 @ 5'	FL 18 @ 5'	FL 19 @ 5'	FL 20 @ 5'	SWW 4
	<i>Depth:</i>	5- ft	5- ft	5- ft	5- ft	5- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.10.2020 00:00	09.10.2020 00:00	09.10.2020 00:00	09.10.2020 00:00	09.10.2020 00:00	09.10.2020 00:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	09.10.2020 16:37	09.10.2020 16:37	09.10.2020 16:37	09.10.2020 16:37	09.10.2020 16:37	09.10.2020 16:37
	<i>Analyzed:</i>	09.11.2020 01:05	09.11.2020 01:27	09.11.2020 01:50	09.11.2020 02:12	09.11.2020 02:34	09.11.2020 02:57
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
Toluene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
m,p-Xylenes		<0.00403 0.00403	<0.00398 0.00398	<0.00400 0.00400	<0.00402 0.00402	<0.00402 0.00402	<0.00402 0.00402
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
Total Xylenes		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
Total BTEX		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>	09.10.2020 16:54	09.10.2020 16:54	09.10.2020 16:54	09.10.2020 16:54	09.10.2020 16:54	09.10.2020 16:54
	<i>Analyzed:</i>	09.10.2020 17:17	09.10.2020 17:33	09.10.2020 17:38	09.10.2020 17:44	09.10.2020 17:49	09.10.2020 18:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		241 10.0	255 10.0	245 10.0	254 9.96	137 10.1	97.8 10.1
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	09.10.2020 15:30	09.10.2020 15:30	09.10.2020 15:30	09.10.2020 15:30	09.10.2020 16:30	09.10.2020 16:30
	<i>Analyzed:</i>	09.10.2020 18:30	09.10.2020 18:50	09.10.2020 19:10	09.10.2020 19:31	09.10.2020 21:11	09.10.2020 22:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0
Total TPH		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0

BRL - Below Reporting Limit

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

*Jessica Kramer*



# Certificate of Analysis Summary 672280

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

**Project Name: Cole Stute #10**

**Project Id:** 11465  
**Contact:** PM  
**Project Location:** Lea County, New Mexico

**Date Received in Lab:** Thu 09.10.2020 15:28  
**Report Date:** 09.11.2020 10:57  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> 672280-007 <b>Field Id:</b> NEW 4 <b>Depth:</b> <b>Matrix:</b> SOIL <b>Sampled:</b> 09.10.2020 00:00					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> 09.10.2020 16:37 <b>Analyzed:</b> 09.11.2020 03:19 <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	<0.00400 0.00400					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
<b>Inorganic Anions by EPA 300</b>	<b>Extracted:</b> 09.10.2020 16:54 <b>Analyzed:</b> 09.10.2020 18:11 <b>Units/RL:</b> mg/kg RL					
Chloride	10.1 10.1					
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> 09.10.2020 16:30 <b>Analyzed:</b> 09.10.2020 22:32 <b>Units/RL:</b> mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.3 50.3					
Diesel Range Organics (DRO)	<50.3 50.3					
Motor Oil Range Hydrocarbons (MRO)	<50.3 50.3					
Total TPH	<50.3 50.3					

BRL - Below Reporting Limit

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





# Analytical Report 672280

for

**Etech Environmental & Safety Solution, Inc**

**Project Manager: PM**

**Cole Stute #10**

**11465**

**09.11.2020**

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 (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)





09.11.2020

Project Manager: **PM**

**Etech Environmental & Safety Solution, Inc**

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **672280**

**Cole Stute #10**

Project Address: Lea County, New Mexico

**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) 672280. 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. 672280 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 672280****Etech Environmental & Safety Solution, Inc, Midland, TX**

Cole Stute #10

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL 16 @ 5'	S	09.10.2020 00:00	5 ft	672280-001
FL 17 @ 5'	S	09.10.2020 00:00	5 ft	672280-002
FL 18 @ 5'	S	09.10.2020 00:00	5 ft	672280-003
FL 19 @ 5'	S	09.10.2020 00:00	5 ft	672280-004
FL 20 @ 5'	S	09.10.2020 00:00	5 ft	672280-005
SWW 4	S	09.10.2020 00:00		672280-006
NEW 4	S	09.10.2020 00:00		672280-007



## CASE NARRATIVE

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

***Project Name: Cole Stute #10***

Project ID: 11465  
Work Order Number(s): 672280

Report Date: 09.11.2020  
Date Received: 09.10.2020

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**Sample receipt non conformances and comments:**

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

None



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 16 @ 5'** Matrix: Soil Date Received: 09.10.2020 15:28  
 Lab Sample Id: 672280-001 Date Collected: 09.10.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.10.2020 16:54 Basis: Wet Weight  
 Seq Number: 3136852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	241	10.0	mg/kg	09.10.2020 17:17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.10.2020 15:30 Basis: Wet Weight  
 Seq Number: 3136854

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.10.2020 18:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.10.2020 18:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.10.2020 18:30	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.10.2020 18:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	09.10.2020 18:30	
o-Terphenyl	84-15-1	121	%	70-135	09.10.2020 18:30	



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 16 @ 5'**

Matrix: Soil

Date Received: 09.10.2020 15:28

Lab Sample Id: 672280-001

Date Collected: 09.10.2020 00:00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.10.2020 16:37

Basis: Wet Weight

Seq Number: 3136847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.11.2020 01:05	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.11.2020 01:05	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.11.2020 01:05	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.11.2020 01:05	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.11.2020 01:05	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.11.2020 01:05	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.11.2020 01:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.11.2020 01:05	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.11.2020 01:05	



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 17 @ 5'** Matrix: Soil Date Received: 09.10.2020 15:28  
 Lab Sample Id: 672280-002 Date Collected: 09.10.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.10.2020 16:54 Basis: Wet Weight  
 Seq Number: 3136852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	255	10.0	mg/kg	09.10.2020 17:33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.10.2020 15:30 Basis: Wet Weight  
 Seq Number: 3136854

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.10.2020 18:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.10.2020 18:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.10.2020 18:50	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.10.2020 18:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	09.10.2020 18:50	
o-Terphenyl	84-15-1	112	%	70-135	09.10.2020 18:50	



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 17 @ 5'**

Matrix: Soil

Date Received: 09.10.2020 15:28

Lab Sample Id: 672280-002

Date Collected: 09.10.2020 00:00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.10.2020 16:37

Basis: Wet Weight

Seq Number: 3136847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.11.2020 01:27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.11.2020 01:27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.11.2020 01:27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.11.2020 01:27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.11.2020 01:27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.11.2020 01:27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.11.2020 01:27	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.11.2020 01:27		
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.11.2020 01:27		



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 18 @ 5'** Matrix: Soil Date Received: 09.10.2020 15:28  
 Lab Sample Id: 672280-003 Date Collected: 09.10.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.10.2020 16:54 Basis: Wet Weight  
 Seq Number: 3136852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	245	10.0	mg/kg	09.10.2020 17:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.10.2020 15:30 Basis: Wet Weight  
 Seq Number: 3136854

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.10.2020 19:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.10.2020 19:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.10.2020 19:10	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.10.2020 19:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	09.10.2020 19:10	
o-Terphenyl	84-15-1	115	%	70-135	09.10.2020 19:10	





# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 18 @ 5'**

Matrix: Soil

Date Received: 09.10.2020 15:28

Lab Sample Id: 672280-003

Date Collected: 09.10.2020 00:00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.10.2020 16:37

Basis: Wet Weight

Seq Number: 3136847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.11.2020 01:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.11.2020 01:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.11.2020 01:50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.11.2020 01:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.11.2020 01:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.11.2020 01:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.11.2020 01:50	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.11.2020 01:50		
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.11.2020 01:50		



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 19 @ 5'** Matrix: Soil Date Received: 09.10.2020 15:28  
 Lab Sample Id: 672280-004 Date Collected: 09.10.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.10.2020 16:54 Basis: Wet Weight  
 Seq Number: 3136852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	254	9.96	mg/kg	09.10.2020 17:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.10.2020 15:30 Basis: Wet Weight  
 Seq Number: 3136854

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.10.2020 19:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.10.2020 19:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.10.2020 19:31	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.10.2020 19:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	09.10.2020 19:31	
o-Terphenyl	84-15-1	110	%	70-135	09.10.2020 19:31	



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 19 @ 5'**

Matrix: Soil

Date Received: 09.10.2020 15:28

Lab Sample Id: 672280-004

Date Collected: 09.10.2020 00:00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.10.2020 16:37

Basis: Wet Weight

Seq Number: 3136847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.11.2020 02:12	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.11.2020 02:12	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.11.2020 02:12	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.11.2020 02:12	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.11.2020 02:12	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.11.2020 02:12	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.11.2020 02:12	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.11.2020 02:12		
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.11.2020 02:12		



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 20 @ 5'** Matrix: Soil Date Received: 09.10.2020 15:28  
 Lab Sample Id: 672280-005 Date Collected: 09.10.2020 00:00 Sample Depth: 5 ft  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.10.2020 16:54 Basis: Wet Weight  
 Seq Number: 3136852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	10.1	mg/kg	09.10.2020 17:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.10.2020 16:30 Basis: Wet Weight  
 Seq Number: 3136858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.10.2020 21:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.10.2020 21:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.10.2020 21:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.10.2020 21:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	09.10.2020 21:11	
o-Terphenyl	84-15-1	111	%	70-135	09.10.2020 21:11	



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **FL 20 @ 5'**

Matrix: Soil

Date Received: 09.10.2020 15:28

Lab Sample Id: 672280-005

Date Collected: 09.10.2020 00:00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.10.2020 16:37

Basis: Wet Weight

Seq Number: 3136847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.11.2020 02:34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.11.2020 02:34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.11.2020 02:34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.11.2020 02:34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.11.2020 02:34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.11.2020 02:34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.11.2020 02:34	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.11.2020 02:34		
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.11.2020 02:34		



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **SWW 4** Matrix: Soil Date Received: 09.10.2020 15:28  
 Lab Sample Id: 672280-006 Date Collected: 09.10.2020 00:00  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.10.2020 16:54 Basis: Wet Weight  
 Seq Number: 3136852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	97.8	10.1	mg/kg	09.10.2020 18:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.10.2020 16:30 Basis: Wet Weight  
 Seq Number: 3136858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.10.2020 22:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.10.2020 22:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.10.2020 22:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.10.2020 22:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	09.10.2020 22:11	
o-Terphenyl	84-15-1	114	%	70-135	09.10.2020 22:11	



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **SWW 4**  
Lab Sample Id: 672280-006

Matrix: Soil  
Date Collected: 09.10.2020 00:00

Date Received: 09.10.2020 15:28

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.10.2020 16:37

Basis: Wet Weight

Seq Number: 3136847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.11.2020 02:57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.11.2020 02:57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.11.2020 02:57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.11.2020 02:57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.11.2020 02:57	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.11.2020 02:57	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.11.2020 02:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	70-130	09.11.2020 02:57	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.11.2020 02:57	



# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **NEW 4** Matrix: Soil Date Received: 09.10.2020 15:28  
 Lab Sample Id: 672280-007 Date Collected: 09.10.2020 00:00  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 09.10.2020 16:54 Basis: Wet Weight  
 Seq Number: 3136852

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	10.1	mg/kg	09.10.2020 18:11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 09.10.2020 16:30 Basis: Wet Weight  
 Seq Number: 3136858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.10.2020 22:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.10.2020 22:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.10.2020 22:32	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.10.2020 22:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	09.10.2020 22:32	
o-Terphenyl	84-15-1	117	%	70-135	09.10.2020 22:32	





# Certificate of Analytical Results 672280

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

Cole Stute #10

Sample Id: **NEW 4**  
Lab Sample Id: 672280-007

Matrix: Soil  
Date Collected: 09.10.2020 00:00

Date Received: 09.10.2020 15:28

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.10.2020 16:37

Basis: Wet Weight

Seq Number: 3136847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.11.2020 03:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.11.2020 03:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.11.2020 03:19	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.11.2020 03:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.11.2020 03:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.11.2020 03:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.11.2020 03:19	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.11.2020 03:19		
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.11.2020 03:19		

## 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

### Cole Stute #10

**Analytical Method: Inorganic Anions by EPA 300**

Seq Number: 3136852

Matrix: Solid

Prep Method: E300P

Date Prep: 09.10.2020

MB Sample Id: 7711097-1-BLK

LCS Sample Id: 7711097-1-BKS

LCSD Sample Id: 7711097-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	254	102	254	102	90-110	0	20	mg/kg	09.10.2020 17:06	

**Analytical Method: Inorganic Anions by EPA 300**

Seq Number: 3136852

Matrix: Soil

Prep Method: E300P

Date Prep: 09.10.2020

Parent Sample Id: 672280-001

MS Sample Id: 672280-001 S

MSD Sample Id: 672280-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	241	200	445	102	446	103	90-110	0	20	mg/kg	09.10.2020 17:22	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136854

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.10.2020

MB Sample Id: 7711081-1-BLK

LCS Sample Id: 7711081-1-BKS

LCSD Sample Id: 7711081-1-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	806	81	850	85	70-135	5	35	mg/kg	09.10.2020 11:28	
Diesel Range Organics (DRO)	<50.0	1000	875	88	929	93	70-135	6	35	mg/kg	09.10.2020 11:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		107		114		70-135	%	09.10.2020 11:28
o-Terphenyl	100		101		114		70-135	%	09.10.2020 11:28

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136858

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.10.2020

MB Sample Id: 7711134-1-BLK

LCS Sample Id: 7711134-1-BKS

LCSD Sample Id: 7711134-1-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	836	84	873	87	70-135	4	35	mg/kg	09.10.2020 20:31	
Diesel Range Organics (DRO)	<50.0	1000	905	91	961	96	70-135	6	35	mg/kg	09.10.2020 20:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		126		117		70-135	%	09.10.2020 20:31
o-Terphenyl	98		105		109		70-135	%	09.10.2020 20:31

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136854

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.10.2020

MB Sample Id: 7711081-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.10.2020 11:08	

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

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

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

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



## Etech Environmental & Safety Solution, Inc

### Cole Stute #10

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136858

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.10.2020

MB Sample Id: 7711134-1-BLK

**Parameter**

Motor Oil Range Hydrocarbons (MRO)

**MB  
Result**

&lt;50.0

**Units**

mg/kg

**Analysis  
Date**

09.10.2020 20:11

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

Seq Number: 3136854

Matrix: Soil

Prep Method: SW8015P

Date Prep: 09.10.2020

Parent Sample Id: 672189-001

MS Sample Id: 672189-001 S

MSD Sample Id: 672189-001 SD

**Parameter**

Gasoline Range Hydrocarbons (GRO)

**Parent  
Result**

&lt;50.2

**Spike  
Amount**

1000

**MS  
Result**

883

**MS  
%Rec**

88

**MSD  
Result**

897

**MSD  
%Rec**

89

**Limits**

70-135

**%RPD**

2

**RPD  
Limit**

35

**Units**

mg/kg

**Analysis  
Date**

09.10.2020 12:28

**Flag**

Diesel Range Organics (DRO)

&lt;50.2

1000

988

99

1020

101

70-135

3

35

mg/kg

09.10.2020 12:28

**Surrogate**

1-Chlorooctane

**MS  
%Rec**

125

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

120

**MSD  
Flag****Limits**

70-135

**Units**

%

**Analysis  
Date**

09.10.2020 12:28

o-Terphenyl

120

118

70-135

%

09.10.2020 12:28

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3136858

Matrix: Soil

Prep Method: SW8015P

Date Prep: 09.10.2020

Parent Sample Id: 672280-005

MS Sample Id: 672280-005 S

MSD Sample Id: 672280-005 SD

**Parameter**

Gasoline Range Hydrocarbons (GRO)

**Parent  
Result**

&lt;50.1

**Spike  
Amount**

1000

**MS  
Result**

931

**MS  
%Rec**

93

**MSD  
Result**

900

**MSD  
%Rec**

90

**Limits**

70-135

**%RPD**

3

**RPD  
Limit**

35

**Units**

mg/kg

**Analysis  
Date**

09.10.2020 21:31

**Flag**

Diesel Range Organics (DRO)

&lt;50.1

1000

1050

105

1010

101

70-135

4

35

mg/kg

09.10.2020 21:31

**Surrogate**

1-Chlorooctane

**MS  
%Rec**

128

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

131

**MSD  
Flag****Limits**

70-135

**Units**

%

**Analysis  
Date**

09.10.2020 21:31

o-Terphenyl

128

122

70-135

%

09.10.2020 21:31

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

Seq Number: 3136847

Matrix: Solid

Prep Method: SW5035A

Date Prep: 09.10.2020

MB Sample Id: 7711096-1-BLK

LCS Sample Id: 7711096-1-BKS

LCSD Sample Id: 7711096-1-BSD

**Parameter**

Benzene

**MB  
Result**

&lt;0.00200

**Spike  
Amount**

0.100

**LCS  
Result**

0.101

**LCS  
%Rec**

101

**LCSD  
Result**

0.0981

**LCSD  
%Rec**

98

**Limits**

70-130

**%RPD**

3

**RPD  
Limit**

35

**Units**

mg/kg

**Analysis  
Date**

09.10.2020 23:02

**Flag**

Toluene

&lt;0.00200

0.100

0.0991

99

0.0956

96

70-130

4

35

mg/kg

09.10.2020 23:02

Ethylbenzene

&lt;0.00200

0.100

0.0917

92

0.0888

89

71-129

3

35

mg/kg

09.10.2020 23:02

m,p-Xylenes

&lt;0.00400

0.200

0.184

92

0.179

90

70-135

3

35

mg/kg

09.10.2020 23:02

o-Xylene

&lt;0.00200

0.100

0.0927

93

0.0897

90

71-133

3

35

mg/kg

09.10.2020 23:02

**Surrogate**

1,4-Difluorobenzene

**MB  
%Rec**

99

**MB  
Flag****LCS  
%Rec**

98

**LCS  
Flag****LCSD  
%Rec**

98

**LCSD  
Flag****Limits**

70-130

**Units**

%

**Analysis  
Date**

09.10.2020 23:02

4-Bromofluorobenzene

87

87

88

70-130

%

09.10.2020 23:02

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**  
Cole Stute #10

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

Seq Number: 3136847

Matrix: Soil

Prep Method: SW5035A

Date Prep: 09.10.2020

Parent Sample Id: 672280-001

MS Sample Id: 672280-001 S

MSD Sample Id: 672280-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0917	92	0.122	121	70-130	28	35	mg/kg	09.10.2020 23:47	
Toluene	<0.00200	0.100	0.0904	90	0.118	117	70-130	26	35	mg/kg	09.10.2020 23:47	
Ethylbenzene	<0.00200	0.100	0.0842	84	0.110	109	71-129	27	35	mg/kg	09.10.2020 23:47	
m,p-Xylenes	<0.00401	0.200	0.170	85	0.220	109	70-135	26	35	mg/kg	09.10.2020 23:47	
o-Xylene	<0.00200	0.100	0.0837	84	0.110	109	71-133	27	35	mg/kg	09.10.2020 23:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		70-130	%	09.10.2020 23:47
4-Bromofluorobenzene	94		84		70-130	%	09.10.2020 23:47

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

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

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

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





Work Order No: 672286

## Final 1.000

## Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental &amp; Safety Solution, I

Date/ Time Received: 09.10.2020 03.28.00 PM

Work Order #: 672280

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T\_NM\_007

## Sample Receipt Checklist

## Comments

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



Cloe Clifton

Date: 09.10.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.11.2020

## **Appendix D**


### **Photographic Log**



## Photographic Log

Dates: 11/05/2019 , 11/8/2019

<b>Photo Number:</b> 1	
<b>Photo Direction:</b> West	
<b>Photo Description:</b>  Southern end of spill and release point.	

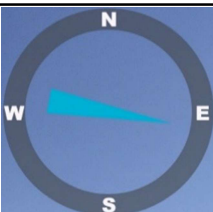

<b>Photo Number:</b> 2	
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  South of spill area looking north toward the rest of the spill.	



## Photographic Log

Dates: 11/5/2019, 11/5/2019



<b>Photo Number:</b> 3	  <div>Nov 5, 2019 at 9:20:42 AM 32.393142° N, 103.173195° W</div>
<b>Photo Direction:</b> East	
<b>Photo Description:</b>  Middle of spill area.	

<b>Photo Number:</b> 4	  <div>Nov 5, 2019 at 9:21:19 AM 32.393226° N, 103.173279° W</div>
<b>Photo Direction:</b> East	
<b>Photo Description:</b>  Northern section of the spill area.	



## Photographic Log

<b>Photo Number:</b> 5	  <p>Sep 10, 2020 at 1:44:09 PM +32.392861,-103.173023 ±5.00m 324° NW</p>
<b>Photo Direction:</b> Northwest	
<b>Photo Description:</b>  Open excavation.	

<b>Photo Number:</b> 6	  <p>Sep 10, 2020 at 1:44:47 PM +32.392989,-103.173033 ±5.00m 325° NW</p>
<b>Photo Direction:</b> Northwest	
<b>Photo Description:</b>  Open excavation.	



## Photographic Log

<b>Photo Number:</b> 7	  <div>Sep 10, 2020 at 1:45:02 PM +32.393073,-103.173074 ±5.00m 316° NW</div>
<b>Photo Direction:</b> Northwest	
<b>Photo Description:</b>  Open excavation.	

<b>Photo Number:</b> 8	  <div>Sep 10, 2020 at 1:45:27 PM +32.393236,-103.173210 ±5.00m 297° NW</div>
<b>Photo Direction:</b> West	
<b>Photo Description:</b>  Open excavation	




## Photographic Log

<b>Photo Number:</b> 9	
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  Impacted area after backfill and grading.	

<b>Photo Number:</b> 10	
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  Impacted area after backfill and grading.	

## Photographic Log

<b>Photo Number:</b> 11	
<b>Photo Direction:</b> North	
<b>Photo Description:</b>          Impacted area after backfill and grading.	