Incident ID	NRM2000635221
District RP	
Facility ID	
Application ID	

SU1W4-200306-C-1410

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	`75 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☑ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Carmen E Pitt Title: Senior HSE Specialist

Signature: Carmen E Pitt Date: 3/5/2020

email: cpitt@grizzlyenergyllc.com Telephone: 970-876-0981

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Carmen E Pitt Title: Senior HSE Specialist

Signature: Carmen E Pitt Date: 3/5/2020

email: cpitt@grizzlyenergyllc.com Telephone: 970-876-0981

OCD Only

Received by: Victoria Venegas Date: 03/05/2020

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

Signature: Date: 04/17/2020

Site Assessment Report and Proposed Remediation Workplan

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. 1RP-Pending

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: [X] State [ ] Federal [ ] Tribal [ ] Private (Name _____)

Nature and Volume of Release

[X] Crude Oil	Volume Released (bbls) 0.6	Volume Recovered (bbls) 0.25
[X] 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?	[X] Yes [ ] No [ ] N/A
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:
The release was attributed to a line plugging off, pressuring up and causing the rollergrip clamp to fail.

Initial Response

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

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

2.0 SITE CHARACTERIZATION

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

What is the shallowest depth to groundwater beneath the area affected by the release?	~ 75 Ft.
Did the release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production or storage site?	☒ Yes ☐ No

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

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

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

Closure Criteria for Soil Impacted by a Release			
Probable Depth to Groundwater	**Constituent**	**Method**	**Limit**
~ 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 SAMPLING PLAN

Upon completion of excavation activities, representative five-point composite excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear ft. A minimum of thirteen (13) representative five-point composite excavation confirmation soil sample will be collected from the base of the excavated area representing every 300 square feet. Additional, discrete grab samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

7.0 TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of the Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment it is estimated that approximately 700 cubic yards is in need of removal.

8.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

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

9.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Site Assessment Report and Proposed Remediation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Basis 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 within the consent of Etech and/or Grizzly Energy, LLC.

10.0 DISTRIBUTION

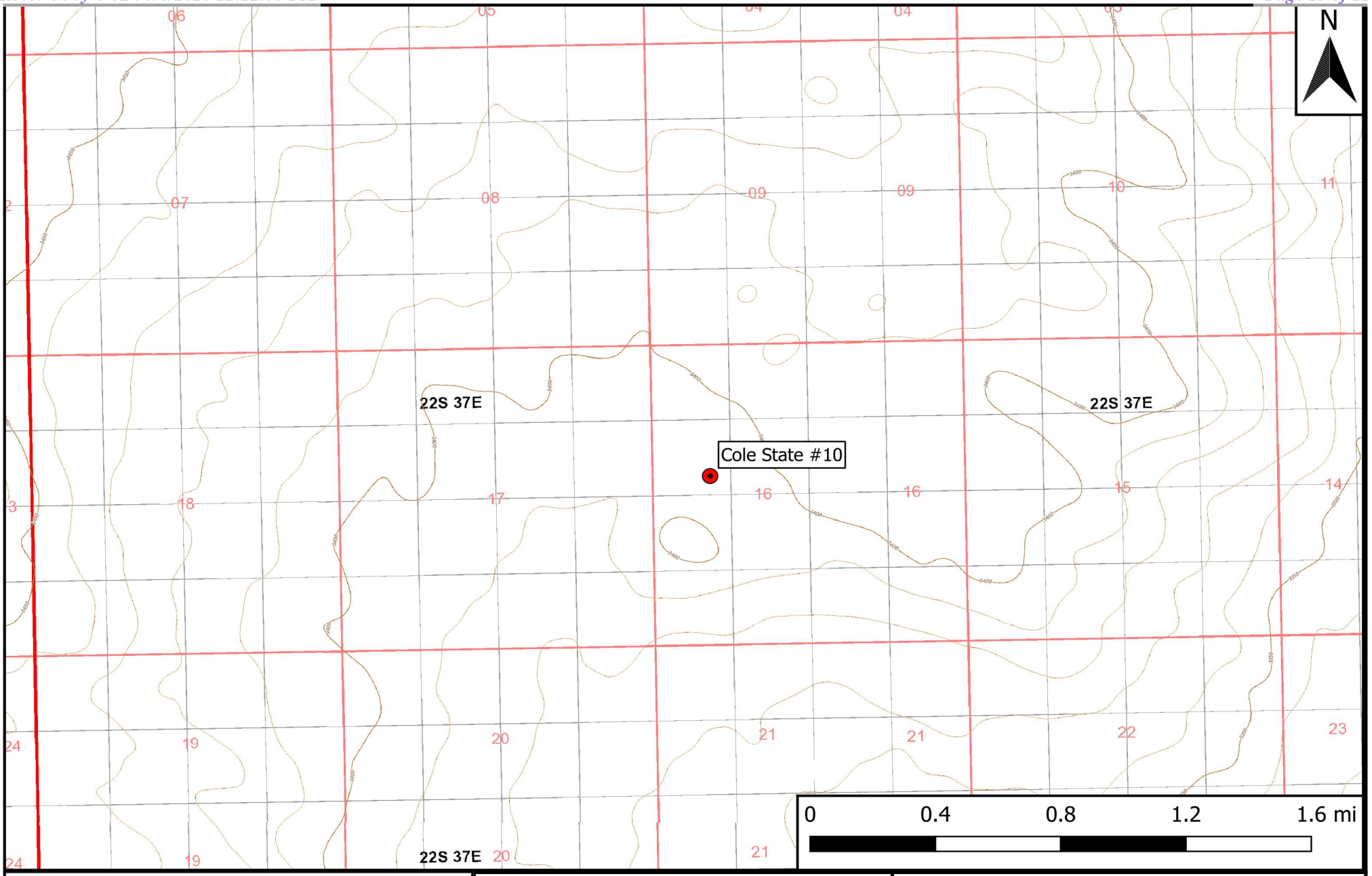
Grizzly Energy, LLC
4001 Penbrook
Suite 201
Odessa, TX 79762

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

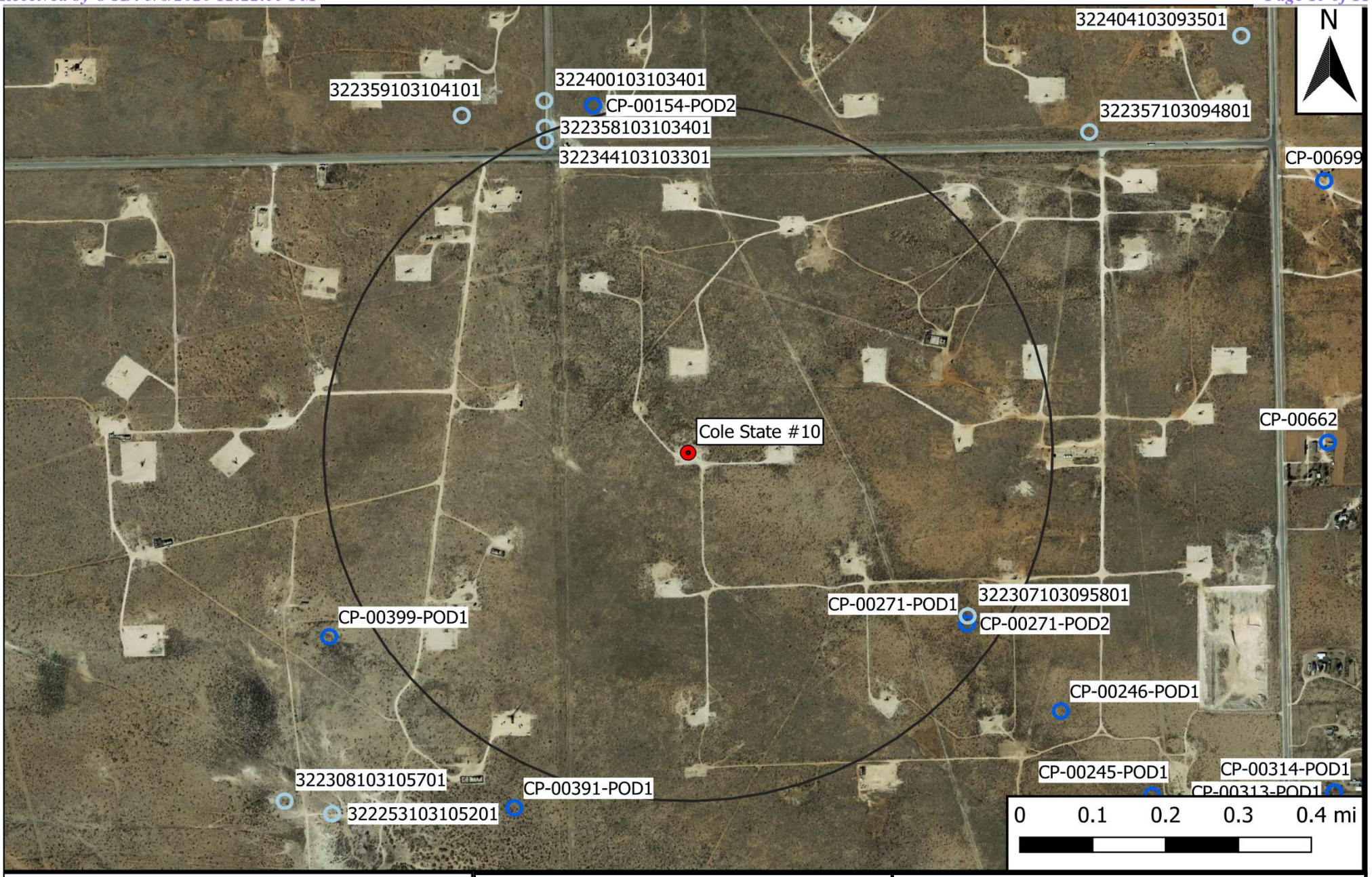
GPS: 32.39277, -103.17335

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 11/6/19

Figure 2
Aerial Proximity Map



Legend

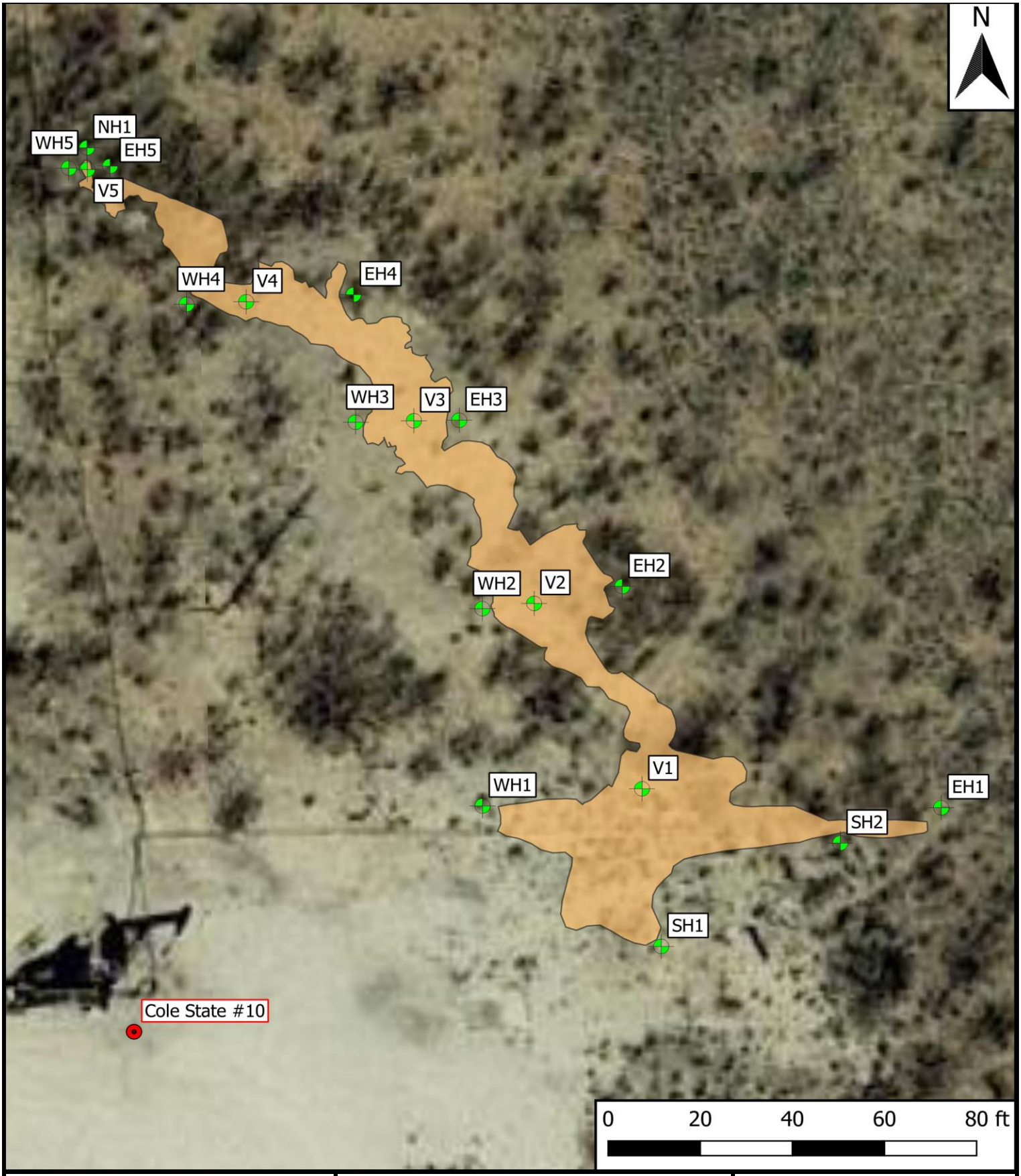
- Site Location
- Potash Mine Workings
- 0.5 Mi Radius
- 1% Annual Flood Chance
- Surface Water
- Well - USGS
- Well - NMOSE
- High Karst
- Medium Karst

Figure 2
Aerial 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

Figure 3
Site and Sample Location Map



Legend

- Sample Point
- Site Location
- Spill Area - 3693 sq ft

Figure 3

Site and Sample Location Map

Grizzly Energy, LLC

Cole State #10

GPS: 32.39277, -103.17335

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl Date: 2/27/20

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. #: 1RP-Pending

Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C_6-C_{10} (mg/kg)	DRO C_{10}-C_{28} (mg/kg)	GRO + DRO C_6-C_{28} (mg/kg)	ORO C_{28}-C_{36} (mg/kg)	TPH C_6-C_{36} (mg/kg)	Chloride (mg/kg)
V2 @ Surf.	11/5/2019	Surf	In-Situ	1.99	**187**	1,870	4,980	**6,850**	434	**7,284**	**1,600**
V3 @ Surf.	11/5/2019	Surf	In-Situ	5.49	**445**	11,200	45,000	**56,200**	6,930	**63,130**	**1,200**
V4 @ 1'	11/5/2019	1'	In-Situ	0.349	**89.7**	846	2,880	**3,726**	213	**3,939**	464
V5 @ Surf.	11/5/2019	Surf	In-Situ	5.15	**767**	15,400	54,200	**69,600**	8,010	**77,610**	<16.0
SH1 @ Surf.	11/5/2019	Surf	In-Situ	<0.050	0.543	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
SH1 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SH2 @ Surf.	11/5/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SH2 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
EH1 @ Surf.	11/5/2019	Surf	In-Situ	<0.200	<1.20	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH1 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH1 @ Surf.	11/5/2019	Surf	In-Situ	<0.050	<0.300	<10.0	19.7	19.7	<10.0	19.7	<16.0
WH1 @ 1'	11/5/2019	1'	In-Situ	<0.050	<0.300	<10.0	10.5	10.5	<10.0	10.5	<16.0
V1 @ 3.5' -R	11/8/2019	3.5' -R	In-Situ	<0.050	3.08	51.5	612	663.5	55.2	**718.7**	**1,010**
V5 @ 1.5' - R	11/8/2019	1.5' - R	In-Situ	<0.050	0.319	<10.0	190	190	<10.0	190	32.0
WH2 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH2 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	496
WH3 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH3 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
WH4 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH4 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
WH5 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH5 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH2 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH2 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH3 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
EH3 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
EH4 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
EH4 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH5 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH5 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
NH1 @ Surf.	11/8/2019	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
NH1 @ 1'	11/8/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
V3 @ 4'	12/6/2019	4'	In-Situ	<0.050	0.917	35.1	758	793.1	106	**899.1**	**1,150**
V4 @ 3'	12/6/2019	3'	In-Situ	<0.050	<0.300	<10.0	468	468	86.4	**554.4**	64.0
V5 @ 3'	12/6/2019	3'	In-Situ	-	-	-	-	<20.0	-	<30.0	96.0
V1 @ 4'	12/23/2019	4'	In-Situ	<0.050	1.00	37.9	5,990	**6,028**	1450	**7,478**	528
Closure Criteria - Pasture < 4'				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
Pasture > 4' and Pad				**10**	**50**	**-**	**-**	**1,000**	**-**	**2,500**	**10,000**

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. #: 1RP-Pending

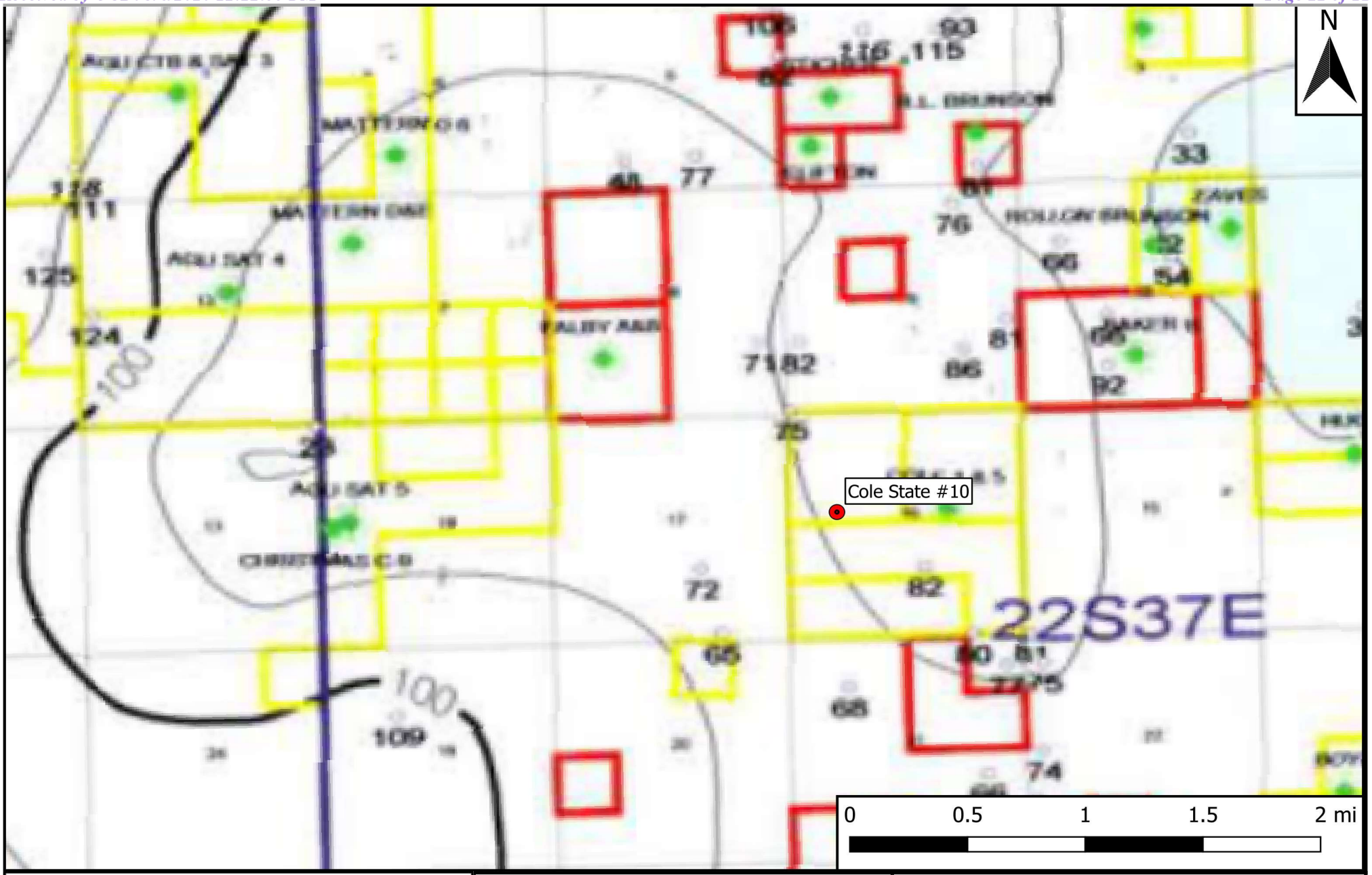
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C_6-C_{10} (mg/kg)	DRO C_{10}-C_{28} (mg/kg)	GRO + DRO C_6-C_{28} (mg/kg)	ORO C_{28}-C_{36} (mg/kg)	TPH C_6-C_{36} (mg/kg)	Chloride (mg/kg)
V2 @ 4'	12/23/2019	4'	In-Situ	<0.050	<0.300	11.7	697	708.7	173	**881.7**	**896**
V4 @ 4'	12/23/2019	4'	In-Situ	<0.100	0.974	50.7	6,970	**7,021**	1,500	**8,521**	80.0
V5 @ 4'	12/23/2019	4'	In-Situ	<0.050	<0.300	<10.0	654	654	156	**810**	64.0
V1 @ 5'	2/19/2020	5'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
V1 @ 6'	2/19/2020	6'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
V4 @ 8'	2/19/2020	8'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
V4 @ 9'	2/19/2020	9'	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
Closure Criteria - Pasture < 4'				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
Pasture > 4' and Pad				**10**	**50**	**-**	**-**	**1,000**	**-**	**2,500**	**10,000**

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

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

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

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00154 POD2		CP	LE	3	3	3	09	22S	37E	671600	3586239*	825	172		
CP 00391 POD1		CP	LE	4	4	4	17	22S	37E	671426	3584623*	902	96		
CP 00246 POD1		CP	LE	2	3	4	16	22S	37E	672633	3584845*	1015	135		
CP 00871		CP	LE			3	09	22S	37E	671902	3586541*	1104	167	94	73
CP 01353 POD1		CP	LE	3	1	3	09	22S	37E	671514	3586640	1236	93	73	20
CP 00245 POD1		CP	LE	3	4	4	16	22S	37E	672835	3584652*	1293	136		
CP 00662		CP	LE	3	3	1	15	22S	37E	673223	3585464*	1413	180	150	30
CP 00699		CP	LE	1	1	1	15	22S	37E	673215	3586066*	1538	163	100	63
CP 00709		CP	LE		1	3	15	22S	37E	673331	3585163*	1546	200	87	113
CP 01806 POD1		CP	LE	1	3	3	15	22S	37E	673260	3584788	1590	162	95	67
CP 00674		CP	LE		1	1	15	22S	37E	673316	3585967*	1595	100	75	25
CP 00684		CP	LE		1	1	15	22S	37E	673316	3585967*	1595	200	180	20

Average Depth to Water: **106 feet**
Minimum Depth: **73 feet**
Maximum Depth: **180 feet**

Record Count: 12

UTMNAD83 Radius Search (in meters):

Easting (X): 671809.79 **Northing (Y):** 3585440.13 **Radius:** 1610

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

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 00154 POD2	3	3	3	09	22S	37E	671600	3586239*

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:**	

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

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 00245 POD1	3	4	4	16	22S	37E	672835	3584652*

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:**	

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

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*

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:**

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

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 00391 POD1	4	4	4	17	22S	37E	671426	3584623*

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**

New Mexico Office of the State Engineer

Point of Diversion Summary

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

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

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

Water Bearing Stratifications:	Top	Bottom	Description
	160	170	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	160	180

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

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*

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

Water Bearing Stratifications:	Top	Bottom	Description
	75	100	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	85	100

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

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	Twn	Rng	X	Y
	CP 00684	1	1		15	22S	37E	673316	3585967*

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

Water Bearing Stratifications:	Top	Bottom	Description
	175	180	Sandstone/Gravel/Conglomerate
	180	200	Other/Unknown

Casing Perforations:	Top	Bottom
	180	200

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

New Mexico Office of the State Engineer

Point of Diversion Summary

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

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

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

Water Bearing Stratifications:	Top	Bottom	Description
	100	163	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	123	163

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

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	Twsp	Rng	X	Y
	CP 00709	1	3		15	22S	37E	673331	3585163*

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

Water Bearing Stratifications:	Top	Bottom	Description
	60	87	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	117	147

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

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	Twp	Rng	X	Y
	CP 00871		3		09	22S	37E	671902	3586541*

Driller License: 1044 **Driller Company:** EADES WELL DRILLING & PUMP SERVICE

Driller Name: EADES, ALAN

Drill Start Date: 09/29/1997 **Drill Finish Date:** 09/29/1997 **Plug Date:**

Log File Date: 11/04/1997 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 5.75 **Depth Well:** 167 feet **Depth Water:** 94 feet

Water Bearing Stratifications:	Top	Bottom	Description
	124	145	Sandstone/Gravel/Conglomerate
	145	164	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	147	167

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

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

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

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

Casing Perforations:	Top	Bottom
	73	93

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	Twp	Rng	X	Y
2247E	CP 01806 POD1	1	3	3	15	22S	37E	673260	3584788

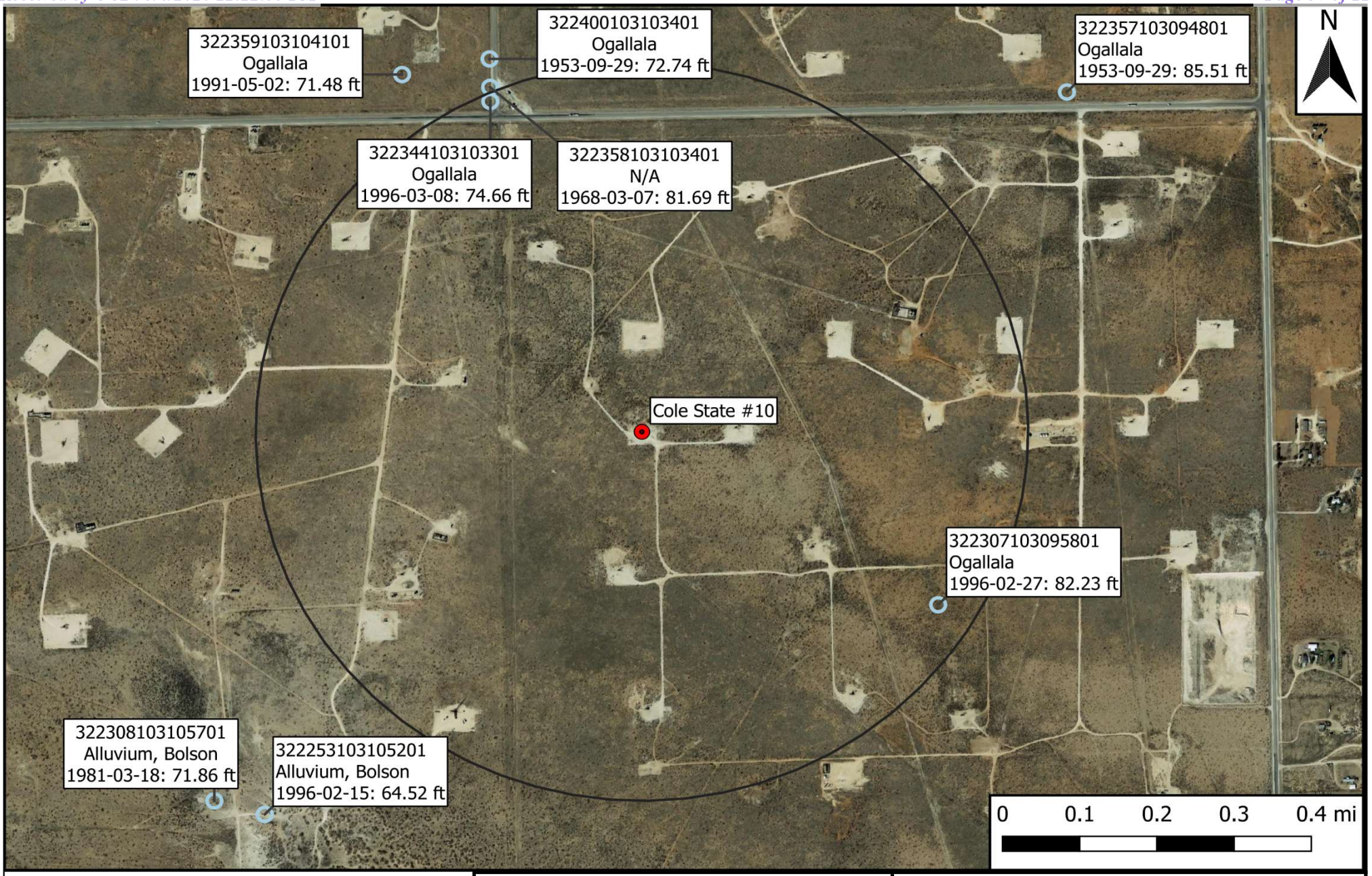
Driller License: 1477 **Driller Company:** M & W WATERWELL SERVICE

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

Water Bearing Stratifications:	Top	Bottom	Description
	107	162	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	142	162



Legend
- Site Location
- Well - USGS

Figure 5
USGS Well Proximity 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

National Water Information System: Web Interface

USGS Water Resources

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

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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

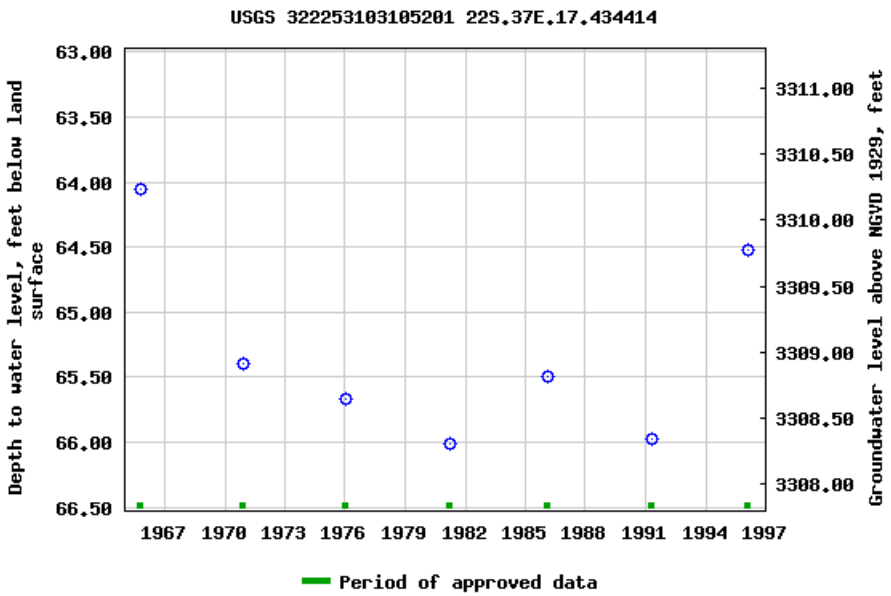
USGS 322253103105201 22S.37E.17.434414

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

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



Breaks in the plot represent a gap of at least one year between field measurements.
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URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:23:58 EST
0.61 0.45 nadww01

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Agency code = usgs
site_no list =
- 322307103095801

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

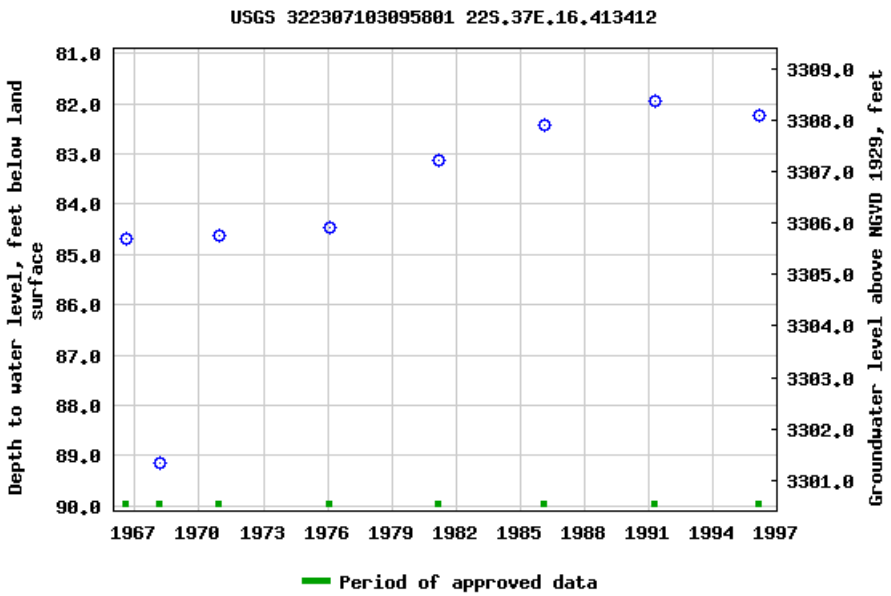
USGS 322307103095801 22S.37E.16.413412

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

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:23:59 EST
0.52 0.44 nadww01

National Water Information System: Web Interface

USGS Water Resources

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

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322308103105701

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

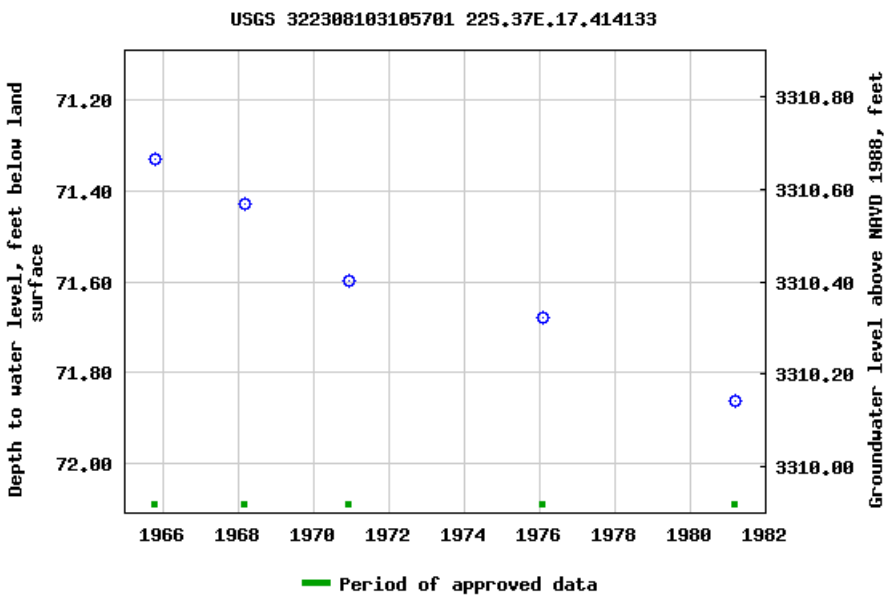
USGS 322308103105701 22S.37E.17.414133

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



Breaks in the plot represent a gap of at least one year between field measurements.
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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:23:59 EST
0.54 0.46 nadww01

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Agency code = usgs
site_no list =
- 322344103103301

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

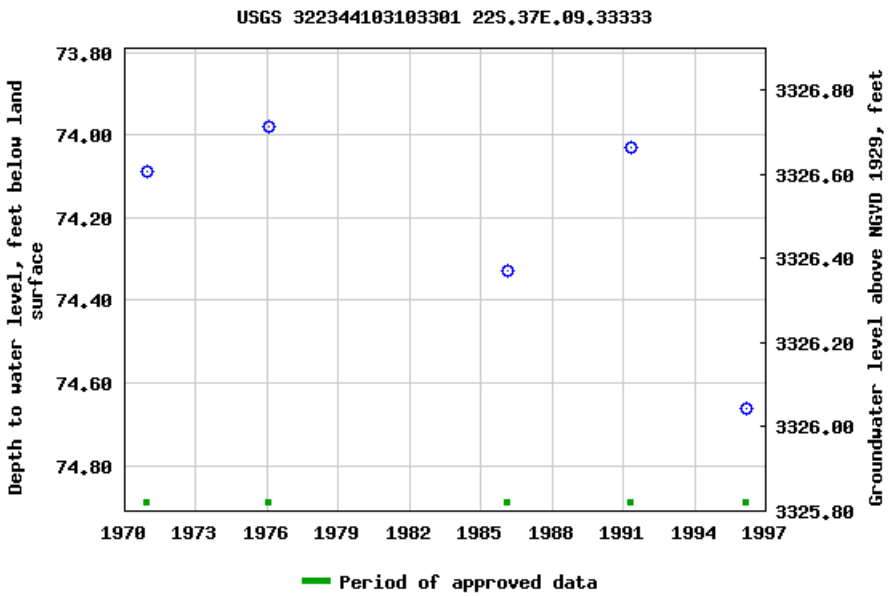
USGS 322344103103301 22S.37E.09.33333

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

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



Breaks in the plot represent a gap of at least one year between field measurements.
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Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:24:00 EST
0.58 0.44 nadww01

National Water Information System: Web Interface

USGS Water Resources

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

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322357103094801

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

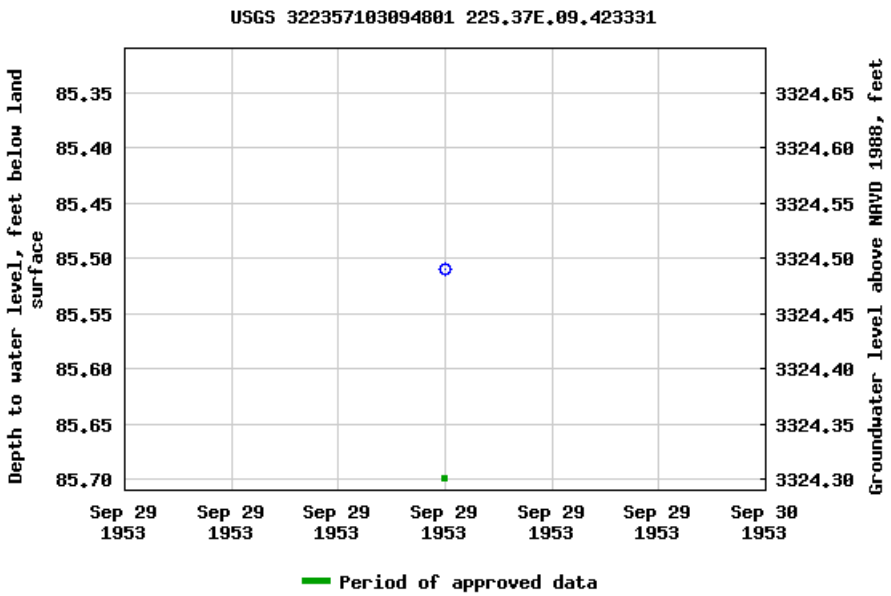
USGS 322357103094801 22S.37E.09.423331

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

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



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Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:24:00 EST
0.59 0.45 nadww01

National Water Information System: Web Interface

USGS Water Resources

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

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322358103103401

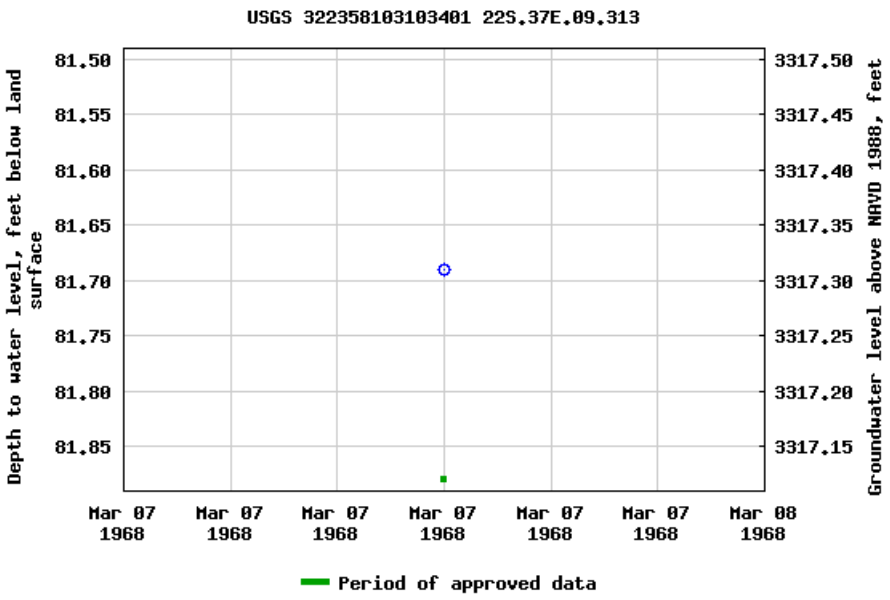
Minimum number of levels = 1
Save file of selected sites to local disk for future upload

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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Questions about sites/data?
Feedback on this web site
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Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:24:01 EST
0.56 0.47 nadww01

National Water Information System: Web Interface

USGS Water Resources

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

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322359103104101

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

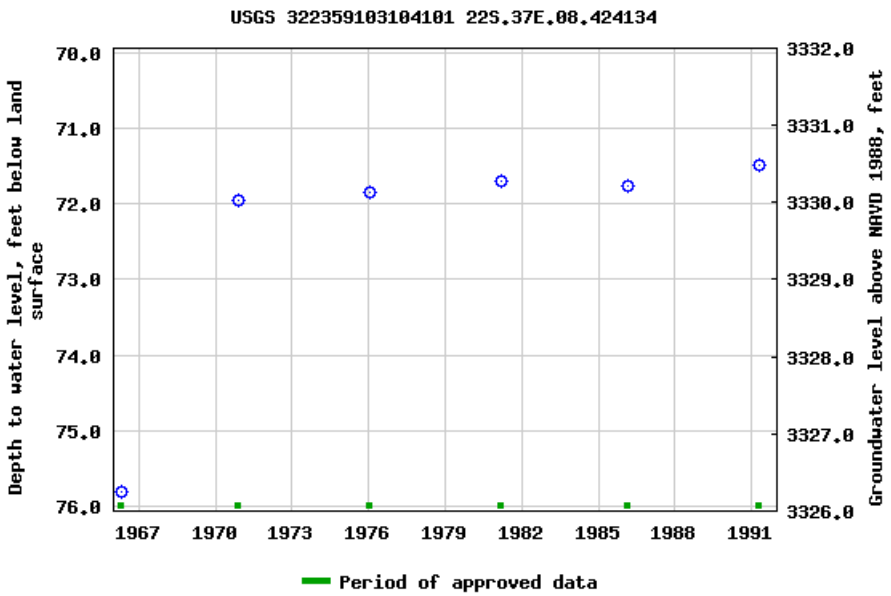
USGS 322359103104101 22S.37E.08.424134

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

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



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

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:24:02 EST
0.52 0.46 nadww01

National Water Information System: Web Interface

USGS Water Resources

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

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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

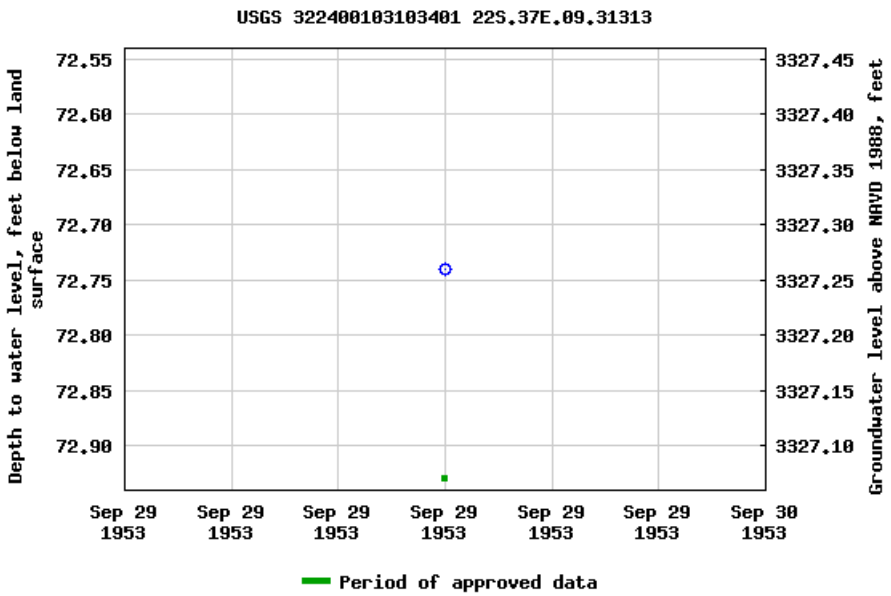
USGS 322400103103401 22S.37E.09.31313

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



Breaks in the plot represent a gap of at least one year between field measurements.
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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-11-06 13:24:03 EST
0.55 0.47 nadww01

Appendix B
Field Data and Soil Profile Logs

eTECH Environmental & Safety Solutions, Inc.

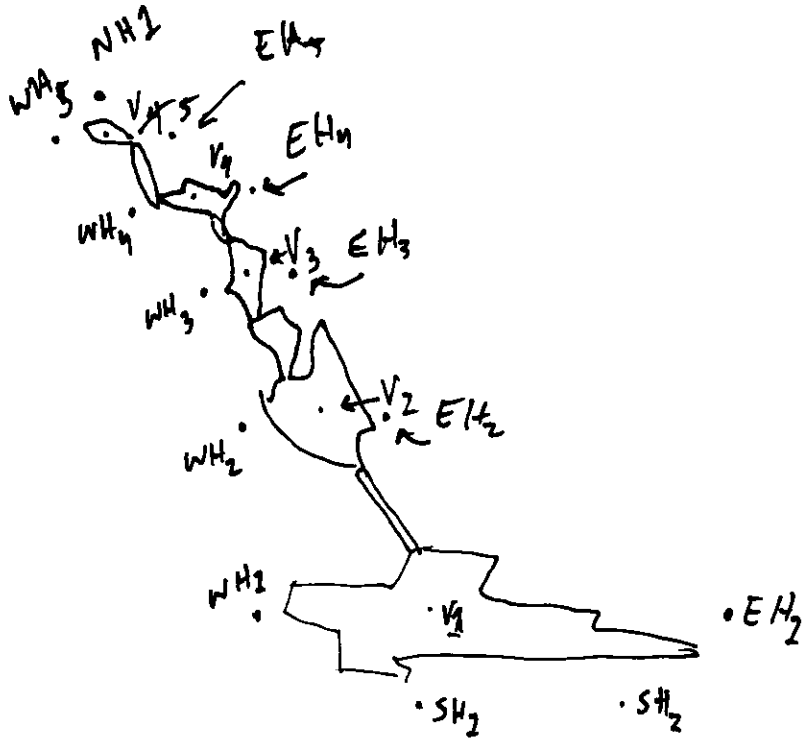
Initial Release Assessment Form

Date: 11/5/19

Project: Cole State #10 Clean Up Level: 0

Project Number: 0 Latitude: 32.39277 Longitude: -103.17335

Site Diagram



Notes:

Ground affected at 1' at least.

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

	Yes	No
3-4 Representative Pictures of the Affected Area including sample locations?	☑	☐
Necessary Samples Field Screened and on Ice?	☑	☐
Sample and Field Screen Data Entered on Sample Log?	☑	☐
Was horizontal and vertical delineation achieved?	☑	☐

2/19/20

ETECH Environmental & Safety Solutions, Inc.

Sample Log

Project: Cole State #10 Date: 11/5/19

Project Number: 0 Latitude: 32.39277 Longitude: -103.17335

Sample ID	PID/Odor	Chloride Conc.		GPS
V1 @ Surf.	Yes	1032	10:00	See trimble data
V1 @ 1'	Yes	964	10:05	
V2 @ Surf	Yes	2320	10:10	
V2 @ 1' - R	Y	1880	10:15	
V3 @ Surf	Y	1320	10:20	
V3 @ 1'	Y	648	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	
~~11/8/19~~				
SH 2 @ Surf	No	272	12:00	
SH 1 @ 1'	N	140	12:05	
SH 2 @ Surf	N	352	12:10	
SH 2 @ 1'	N	140	12:15	
EH 1 @ Surf	N	200	12:20	
EH 1 @ 1'	N	<116	12:25	
WH 1 @ Surf	N	164	12:30	
WH 2 @ 1'	N	140	12:35	
11/8/19				
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	
WH 5 @ Surf	N	236	~~10~~ 11:00	
WH 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

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date:

Project: Cole State #10

Project Number: 11465 Latitude: 32.39277 Longitude: -103.17335

Sample ID	PID/Odor	Chloride Conc.		GPS
WH2-B Surf	Slight	Less 116	2:15	
WH2-B 1 Foot	NO	1184	2:20	
EH2 Surf	Yes	312	2:25	
EH2 1 foot	Yes	Less 116	2:30	
EH3 Surf	Yes	140	2:35	
EH3 1 foot	Yes	444	2:40	
EH4 Surf	NO	116	2:45	
EH4 1 foot	NO	116	2:50	
EH5 Surfo	NO	Less 116	2:55	
EH5 1 foot	NO	200	3:00	
NH1 Surf	NO	Less 116	3:05	
NH1 1 foot	NO	200	3:10	
V1				
V2 @ 3'				
V3 @ 4'				
V4 @ 3'				
V5 @ 3'				
V4 @ 8	Low			
V4 @ 9	Low			
V1 @ 5	6.0			
V1 @ 6	5.0			

1-14-20

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

eTECH Environmental & Safety Solutions, Inc.

Soil Profile

Date: 11/8/19

Project: Cole State #10

Project Number: 11465 Latitude: 32.39277 Longitude: -103.17335

Depth (ft. bgs)	Description
1–3	Brown Clayey Topsoil w/ Rock
4	Caliche Rock
5–40	

Appendix C
Laboratory Analytical Reports

CARDINAL Laboratories

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

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.

Cardinal Laboratories is accreditated 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,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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
Benzene*	**1.99**	0.500	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	**34.6**	0.500	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	**44.4**	0.500	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	**106**	1.50	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTEX	**187**	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
Chloride	**1600**	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*	**1870**	50.0	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	**4980**	50.0	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	**434**	50.0	11/14/2019	ND					

Surrogate: 1-Chlorooctane *175 %* *41-142*

Surrogate: 1-Chlorooctadecane *191 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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
Benzene*	**5.49**	2.00	11/14/2019	ND	1.94	97.0	2.00	9.23	
Toluene*	**77.8**	2.00	11/14/2019	ND	2.01	101	2.00	9.16	
Ethylbenzene*	**103**	2.00	11/14/2019	ND	2.06	103	2.00	9.04	
Total Xylenes*	**259**	6.00	11/14/2019	ND	6.06	101	6.00	9.02	
Total BTEX	**445**	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
Chloride	**1200**	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*	**11200**	100	11/14/2019	ND	190	94.8	200	1.49	
DRO >C10-C28*	**45000**	100	11/14/2019	ND	188	93.9	200	19.8	
EXT DRO >C28-C36	**6930**	100	11/14/2019	ND					

Surrogate: 1-Chlorooctane *600 %* *41-142*

Surrogate: 1-Chlorooctadecane *884 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

BTEX 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, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**464**	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*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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*	**0.118**	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 BTEX	**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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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *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 *99.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

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Analytical Results For:

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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *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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Analytical Results For:

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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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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Received:	11/12/2019	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

BTEX 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 BTEX	<1.20	1.20	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 *95.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

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Received:	11/12/2019	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *84.8 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.0 %* *37.6-147*

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Received:	11/12/2019	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *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	
DRO >C10-C28*	**19.7**	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:

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Received:	11/12/2019	Sampling Date:	11/05/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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	
DRO >C10-C28*	**10.5**	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:

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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

BTEX 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 BTEX	**3.08**	0.300	11/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *131 %* *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	**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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Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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*	**0.084**	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 BTEX	**0.319**	0.300	11/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *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	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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Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	
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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Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *92.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *93.8 %* *37.6-147*

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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *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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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	
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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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *98.1 %* *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	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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Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	
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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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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 *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	<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	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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, 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 *93.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.6 %* *37.6-147*

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Analytical Results For:

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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	11/15/2019	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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Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	**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*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	11/15/2019	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 BTEX	<0.300	0.300	11/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.7 %* *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 *92.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.3 %* *37.6-147*

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JOEL LOWRY
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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	11/15/2019	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 BTEX	<0.300	0.300	11/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *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 *105 %* *41-142*

Surrogate: 1-Chlorooctadecane *109 %* *37.6-147*

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Analytical Results For:

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JOEL LOWRY
P.O. Box 301
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Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	1.73	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 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	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:

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P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	1.73	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 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	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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JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	11/12/2019	Sampling Date:	11/08/2019
Reported:	11/18/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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	1.73	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 BTEX	<0.300	0.300	11/14/2019	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	<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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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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Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Joel Lowry	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	Vanguard/Grizzly
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Carmen Pitt
Phone #:	(575) 396-2378 **Fax #:** (575) 396-1429	**Address:**	
Project #:	11465 **Project Owner:** Grizzly Energy	**City:**	
Project Name:	Cole State 10	**State:** **Zip:**	
Project Location:	Rural Lea	**Phone #:**	
Sampler Name:	Hayden Scott	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
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**	Chloride	TPH (8015M)	BTEX (8021B)									
H903841																									
1	V2 @ Surf	g	1			x					x		11/5/19	10:10	x	x	x								
2	V3 @ Surf	g	1			x					x		11/5/19	10:20	x	x	x								
3	V4 @ 1'	g	1			x					x		11/5/19	10:35	x	x	x								
4	V5 @ Surf	g	1			x					x		11/5/19	10:40	x	x	x								
5	SH1 @ Surf	g	1			x					x		11/5/19	12:00	x	x	x								
6	SH1 @ 1'	g	1			x					x		11/5/19	12:05	x	x	x								
7	SH2 @ Surf	g	1			x					x		11/5/19	12:10	x	x	x								
8	SH2 @ 1'	g	1			x					x		11/5/19	12:15	x	x	x								
9	EH1 @ Surf	g	1			x					x		11/5/19	12:20	x	x	x								
10	EH1 @ 1'	g	1			x					x		11/5/19	12:25	x	x	x								

Relinquished By:	**Date:** 11/12/19	**Received By:**	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 16:06		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	**Date:**	**Received By:**	**REMARKS:**
	Time:		Please email results to joel@etechenv.com.

Delivered By: (Circle One) -1.9°C #97 **Sampler - UPS - Bus - Other:** Corrected -1.5°C

Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No

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CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Joel Lowry	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	Vanguard/Grizzly
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Carmen Pitt
Phone #:	(575) 396-2378 **Fax #:** (575) 396-1429	**Address:**	
Project #:	11465 **Project Owner:** Grizzly Energy	**City:**	
Project Name:	Cole State 10	**State:** **Zip:**	
Project Location:	Rural Lea	**Phone #:**	
Sampler Name:	Hayden Scott	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
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**	Chloride	TPH (8015M)	BTEX (8021B)								
H903841																									
11	WH1 @ Surf	g	1			x					x		11/5/19	12:30	x	x	x								
12	WH1 @ 1'	g	1			x					x		11/5/19	12:35	x	x	x								
13	V1 @ 3.5' - R	g	1			x					x		11/8/19	9:15	x	x	x								
14	V5 @ 1.5' - R	g	1			x					x		11/8/19	10:00	x	x	x								
15	WH2 @ Surf	g	1			x					x		11/8/19	10:30	x	x	x								
16	WH2 @ 1'	g	1			x					x		11/8/19	10:35	x	x	x								
17	WH3 @ Surf	g	1			x					x		11/8/19	10:40	x	x	x								
18	WH3 @ 1'	g	1			x					x		11/8/19	10:45	x	x	x								
19	WH4 @ Surf	g	1			x					x		11/8/19	10:50	x	x	x								
20	WH4 @ 1'	g	1			x					x		11/8/19	10:55	x	x	x								

Relinquished By:	**Date:** 4/12/19	**Received By:**	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 16:06		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	**Date:**	**Received By:**	**REMARKS:**
	Time:		Please email results to joel@etechenv.com.

Delivered By: (Circle One) Sampler - UPS - Bus - Other: -1.9°C #97 Corrected -1.5°C

Sample Condition Cool ☑ Yes ☐ No Intact ☐ Yes ☐ No

CHECKED BY: (Initials) JO

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CARDINAL LABORATORIES
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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Joel Lowry	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	Vanguard/Grizzly
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Carmen Pitt
Phone #:	(575) 396-2378 **Fax #:** (575) 396-1429	**Address:**	
Project #:	11465 **Project Owner:** Grizzly Energy	**City:**	
Project Name:	Cole State 10	**State:** **Zip:**	
Project Location:	Rural Lea	**Phone #:**	
Sampler Name:	Hayden Scott	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
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**	Chloride	TPH (8015M)	BTEX (8021B)									
H902841																									
21	WH5 @ Surf	g	1			x					x		11/8/19	11:00	x	x	x								
22	WH5 @ 1'	g	1			x					x		11/8/19	11:05	x	x	x								
23	EH2 @ Surf	g	1			x					x		11/8/19	2:25	x	x	x								
24	EH2 @ 1'	g	1			x					x		11/8/19	2:30	x	x	x								
25	EH3 @ Surf	g	1			x					x		11/8/19	2:35	x	x	x								
26	EH3 @ 1'	g	1			x					x		11/8/19	2:40	x	x	x								
27	EH4 @ Surf	g	1			x					x		11/8/19	2:45	x	x	x								
28	EH4 @ 1'	g	1			x					x		11/8/19	2:50	x	x	x								
29	EH5 @ Surf	g	1			x					x		11/8/19	2:55	x	x	x								
30	EH5 @ 1'	g	1			x					x		11/8/19	3:00	x	x	x								

Relinquished By:	**Date:** 11/12/19	**Received By:**	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
	Time: 16:06		Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	**Date:**	**Received By:**	**REMARKS:**	
	Time:		Please email results to joel@etechenv.com.	

Delivered By: (Circle One) -1.9° #97 **Sample Condition** Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No **CHECKED BY: (Initials)** TO

Sampler - UPS - Bus - Other: Corrected -1.5°

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Joel Lowry	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	Vanguard/Grizzly
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Carmen Pitt
Phone #:	(575) 396-2378 **Fax #:** (575) 396-1429	**Address:**	
Project #:	11465 **Project Owner:** Grizzly Energy	**City:**	
Project Name:	Cole State 10	**State:**	**Zip:**
Project Location:	Rural Lea	**Phone #:**	
Sampler Name:	Hayden Scott	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
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**	Chloride	TPH (8015M)	BTEX (8021B)									
H903841																									
31	NH1 @ Surf	g	1			x					x		11/8/19	3:05	x	x	x								
32	NH1 @ 1'	g	1			x					x		11/8/19	3:10	x	x	x								

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 11/12/19 **Time:** 16:06	**Received By:**	Phone Result: ☐ Yes ☐ No Add'l Phone #:
			Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	**Date:** **Time:**	**Received By:**	**REMARKS:**
Delivered By: (Circle One)	-1.9° #97	**Sample Condition** Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	**CHECKED BY: (Initials)**
Sampler - UPS - Bus - Other:	Corrected -1.5°		Please email results to joel@etechenv.com.

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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.

Cardinal Laboratories is accreditated 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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	12/06/2019
Reported:	12/11/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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

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*	**0.215**	0.050	12/10/2019	ND	1.73	86.5	2.00	12.5	
Total Xylenes*	**0.702**	0.150	12/10/2019	ND	5.25	87.4	6.00	12.4	
Total BTEX	**0.917**	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
Chloride	**1150**	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
GRO C6-C10*	**35.1**	10.0	12/10/2019	ND	225	113	200	1.94	
DRO >C10-C28*	**758**	10.0	12/10/2019	ND	228	114	200	3.10	
EXT DRO >C28-C36	**106**	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane *114 %* *41-142*

Surrogate: 1-Chlorooctadecane *128 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	12/06/2019
Reported:	12/11/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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, 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	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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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	Sampling Date:	12/06/2019
Reported:	12/11/2019	Sampling Type:	Soil
Project Name:	COLE STATE 10	Sampling Condition:	Cool & Intact
Project Number:	11465	Sample Received By:	Tamara Oldaker
Project Location:	GRIZZLY ENERGY		

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
Chloride	**96.0**	16.0	12/10/2019	ND	400	100	400	7.69	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Grizzly Energy, LLC	**BILL TO**	
Project Manager:	Joel Lowry	**P.O. #:**	
Address:	3100 Plains Hwy	**Company:**	Grizzley Operating
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Carmen Pitt
Phone #:	575-396-2378 **Fax #:** 575-396-1429	**Address:**	4001 Penbrook
Project #:	11465 **Project Owner:** Grizzly Energy, LLC	**City:**	
Project Name:	Cole State #10	**State:** NM **Zip:**	
Project Location:	Rural Lea	**Phone #:**	
Sampler Name:		**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV			SAMPLING		ANALYSIS REQUEST		
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	Chloride	TPH	BTEX 8021
H904096-1	V3@4'	G	1			X					X		12/6/19	11:55	X		
2	V4@3'	G	1			X					X		12/6/19	11:10	X	X	X
3	V5@3'	G	1			X					X		12/6/19	10:55	X		

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 12/6/19	**Received By:**	
	Time: 15:25		
Relinquished By:	**Date:**	**Received By:**	
	Time:		

Delivered By: (Circle One) 3.1c #97
Sampler - UPS - Bus - Other: Corrected 3.5c

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☑ Yes	☑ Yes	TO
☐ No	☐ No	

Phone Result:	☐ Yes ☐ No	**Add'l Phone #:**	
Fax Result:	☐ Yes ☐ No	**Add'l Fax #:**	

REMARKS: Email results to joel@etechenv.com

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

FORM-006 R 2.0

CARDINAL Laboratories

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.

Cardinal Laboratories is accreditated 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,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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)

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	01/02/2020	ND	1.95	97.7	2.00	2.10	
Toluene*	**0.070**	0.050	01/02/2020	ND	1.95	97.6	2.00	1.84	
Ethylbenzene*	**0.342**	0.050	01/02/2020	ND	2.00	100	2.00	2.09	
Total Xylenes*	**0.591**	0.150	01/02/2020	ND	5.83	97.1	6.00	2.08	
Total BTEX	**1.00**	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
Chloride	**528**	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*	**37.9**	10.0	01/03/2020	ND	225	112	200	0.325	
DRO >C10-C28*	**5990**	10.0	01/03/2020	ND	219	110	200	0.765	
EXT DRO >C28-C36	**1450**	10.0	01/03/2020	ND					

Surrogate: 1-Chlorooctane *139 %* *41-142*

Surrogate: 1-Chlorooctadecane *315 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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)

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	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*	**0.155**	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 BTEX	<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
Chloride	**896**	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*	**11.7**	10.0	01/03/2020	ND	225	112	200	0.325	
DRO >C10-C28*	**697**	10.0	01/03/2020	ND	219	110	200	0.765	
EXT DRO >C28-C36	**173**	10.0	01/03/2020	ND					

Surrogate: 1-Chlorooctane *134 %* *41-142*

Surrogate: 1-Chlorooctadecane *153 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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: V4 @ 4' (H904325-03)

BTEX 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 BTEX	**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*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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: V5 @ 4' (H904325-04)

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	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 BTEX	<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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Etech Environmental	**BILL TO**	
Project Manager:	Joel Lowry	P.O. #:	
Address:	3100 Plains Hwy	Company:	
City:	Lovington State: NM Zip: 88260	Attn:	
Phone #:	432-466-4450 Fax #:	Address:	
Project #:	Cole State 10 Project Owner: Grizzly	City:	
Project Name:		State: Zip:	
Project Location:	Lea Co, New Mexico	Phone #:	
Sampler Name:	Miguel Ramirez	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chloride	TPH	BTEX 8021
H904325																	
1	V1@4'	G	1			X					X		12.23.19	9:00	X	X	X
2	V2@4'	G	1			X					X		12.23.19	9:15	X	X	X
3	V4@4'	G	1			X					X		12.23.19	9:30	X	X	X
4	V5@4'	G	1			X					X		12.23.19	9:45	X	X	X

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12.31.19	Received By:	
	Time: 9:08		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 0.1°C/0.5°C #97

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS: email results to joel@etechenv.com
lanie@etechenv.com
PM@etechenv.com

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

FORM-006 R 2.0

CARDINAL Laboratories

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.

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.

Cardinal Laboratories is accreditated 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,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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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					

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

Celey D. Keene

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 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

Celey D. Keene, Lab Director/Quality Manager

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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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories
101 East Mariand, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Etech Environmental & Safety Solutions	BILL TO	
Project Manager:	Joel Lowry	P.O. #:	
Address:	3100 Plains Hwy	Company:	Grizzly
City:	Lovington State: NM Zip: 88260	Attn:	Carmen Pitt
Phone #:	575-396-2378 Fax #: 575-396-1429	Address:	
Project #:	11465 Project Owner:	City:	
Project Name:	Cole State #10	State: Zip:	
Project Location:	Rural lea	Phone #:	
Sampler Name:	Hector Villa	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chloride	TPH	BTEX 8021
H000526																	
1	V1@5	G	1			/					X		1-19-20	9:00		X	
2	V1@6	G	1			/					X		1-19-20	10:00		X	
3	V4@8	G	1			/					X		1-19-20	11:00		X	
4	V4@9	G	1			/					X		1-19-20	12:00		X	

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 2/19/20 Time: 15:46	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	3.2c #113	Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials) BJ

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: Email results to PM@Etechenv.com

Client Contacts

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

FORM-006 R 2.0

Appendix D
Photographic Log

Photographic Log

Dates: 11/05/2019 , 11/8/2019

Photo Number: 1	
Photo Direction: West	
Photo Description: **Southern end of spill and release point.**	

Photo Number: 2	
Photo Direction: North	
Photo Description: **South of spill area looking north toward the rest of the spill.**	

Photographic Log

Dates: 11/5/2019, 11/5/2019

Photo Number: 3	
Photo Direction: East	
Photo Description: **Middle of spill area.**	

Photo Number: 4	
Photo Direction: East	
Photo Description: **Northern section of the spill area.**	