

Incident ID	nAPP2319833354
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>60</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

Oil Conservation Division

Incident ID	nAPP2319833354
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

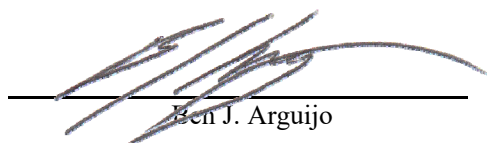
Remediation Summary & Deferral Request

Mewbourne Oil Company Charolais Frac – North Fork Toro

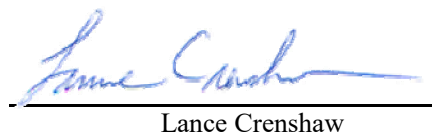
Lea County, New Mexico
Unit Letter "J", Section 21, Township 19 South, Range 35 East
Latitude 32.644939 North, Longitude 103.460810 West
NMOCD Reference No. nAPP2319833354

Prepared By:

Etech Environmental & Safety Solutions, Inc.
6309 Indiana Ave, Ste. D
Lubbock, Texas 79413



Ben J. Arguijo



Lance Crenshaw



Midland • San Antonio • Lubbock • Hobbs • Lafayette

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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this Remediation Summary & Deferral Request for the release site known as the Charolais Frac – North Fork Toro (henceforth, "Charolais Frac"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.644939 Longitude: -103.460810
 Provided GPS are in WGS84 format.

Site Name:	Charolais Frac – North Fork Toro	Site Type:	Tank Battery
Date Release Discovered:	7/3/2023	API # (if applicable):	30-025-35788

Unit Letter	Section	Township	Range	County
"J"	21	19S	35E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name L&K Ranch, LLC)

Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	Unknown	Volume Recovered (bbls)	0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	Unknown	Volume Recovered (bbls)	4,320
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released		Volume/Weight Recovered	

Cause of Release:

Mewbourne offset frac communicated with a wellbore operated by North Fork. Based on the information in the Division's publicly available well files, North Fork failed to disclose to the NMOCD that the offset well was producing from the target formation. The unexpected communication caused overpressure of the heater treater vessel and overflowing of production from the tanks. Mewbourne contacted North Fork to assist with well control and cleanup, but North Fork declined to take any action at its wellsite. Mewbourne then secured the North Fork wellsite and began cleanup operations. Rainwater was present and was some portion of the recovered fluid.

Initial Response

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

Previously submitted portions of the New Mexico Oil Conservation Division (NMOCD) Form C-141 are available in the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

Searches of databases maintained by the NMOCD, New Mexico Office of the State Engineer (NMOSE), and United States Geological Survey (USGS) were conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Charolais Frac release site.

Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. In addition, on September 21, 2023, an investigative soil boring (BH-1) was drilled at the site in an effort to determine if shallow groundwater is present in the area. The soil boring was advanced to a total depth of approximately 60 feet below ground surface (bgs) and left open for over 72 hours. No indications of inflow and/or accumulation of water were noted during the advancement of the soil boring or prior to plugging and abandonment. The location of the investigative soil bore is depicted in Figure 2. A drilling log is provided in Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?			>60'	
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Did the release impact areas not on an exploration, development, production or storage site?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish & Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the Charolais Frac release site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
>60'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	10,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	1,000	N/A
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

* Measured in milligrams per kilogram (mg/kg)

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 REMEDIATION ACTIVITIES SUMMARY

On August 8, 2023, remediation activities commenced at the release site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and/or a chloride test kit were utilized to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The sidewalls and floor of the excavation were advanced until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards. Representative five-point composite confirmation soil samples were collected every 200 square feet from the sidewalls and floor of the excavated area to be submitted for laboratory analysis.

On January 12, 2023, a series of hand-augered soil bores (SP1 through SP11) were advanced within the release margins and at the inferred edges of the affected area in an effort to determine the horizontal and vertical extent of impacted soil. During the advancement of the hand-augered soil bores, soil samples were collected and field-screened for concentrations of chloride utilizing a Hach Quantab ® chloride test kit and/or the presence of Volatile Organic Compounds (VOCs) utilizing olfactory/visual senses.

Based on field observations and field test data, five (5) delineation soil samples (SP5 @ 1, SP6 @ Sur, SP7 @ Sur, SP8 @ Sur, and SP9 @ Sur) were submitted to a certified, commercial laboratory (henceforth, "the laboratory") for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory method detection limit (MDL). Chloride concentrations ranged from 64.0 mg/kg in soil sample SP6 @ Sur to 352 mg/kg in soil sample SP9 @ Sur.

Based on laboratory analytical results and field screens, the areas defined by sample points SP5 through SP9 were not impacted above NMOCD Closure Criteria or NMOCD Reclamation Standards. However, additional delineation and/or excavation was required in the areas characterized by sample points SP1 through SP4, SP10, SP11, and SP12.

On August 9, 2023, Etech collected 11 confirmation soil samples (FL 1 @ 6 in through FL 11 @ 6 in) from the floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory MDL, with the exception of soil sample FL 9 @ 6 in, which exhibited a TPH concentration of 2,940 mg/kg and exceeded the NMOCD Closure Criterion. Chloride concentrations ranged from 16.0 mg/kg in soil samples FL 1 @ 6 in, FL 2 @ 6 in, and FL 6 @ 6 in to 272 mg/kg in soil sample FL 8 @ 6 in.

On August 10, 2023, Etech advanced a test trench in the area characterized by sample point SP12 to further investigate the vertical extent of impacted soil. During the advancement of the test trench, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses.

Based on field observations and field test data, seven (7) delineation soil samples (SP12 @ Sur, SP12 @ 1, SP12 @ 2, SP12 @ 3, SP12 @ 4, SP12 @ 6, and SP12 @ 8) were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX concentrations ranged from less than the laboratory MDL in soil samples SP12 @ 2, SP12 @ 3, SP12 @ 4, SP12 @ 6, and SP12 @ 8 to 60.9 mg/kg in soil sample SP12 @ 1, which exceeded the NMOCD Closure Criterion. TPH concentrations ranged from less than the laboratory MDL in soil samples SP12 @ 4, SP12 @ 6, and SP12 @ 8 to 21,967 mg/kg in soil sample SP12 @ Sur. The TPH concentrations in soil samples SP12 @ Sur, SP12 @ 1, SP12 @ 2, and SP12 @ 3 exceeded the NMOCD Closure Criterion and/or NMOCD Reclamation Standard. Chloride concentrations ranged from 176 mg/kg in soil sample SP12 @ 8 to 2,560 mg/kg in soil sample SP12 @ 4. The chloride concentrations in soil samples SP12 @ 1, SP12 @ 2, SP12 @ 3 exceeded the NMOCD Reclamation Standard. Based on these laboratory analytical results, the vertical extent of impacted soil was adequately defined in the area characterized by sample point SP12 and did not extend beyond three (3) feet bgs.

On August 10, 2023, Etech collected 10 confirmation soil samples (FL 12 @ 6 in through FL 21 @ 1) from the floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory MDL, with the exception of soil sample FL 20 @ 6 in, which exhibited a TPH concentration of 14.2 mg/kg. Chloride concentrations ranged from 16.0 mg/kg in soil sample FL 12 @ 6 in to 400 mg/kg in soil sample FL 21 @ 1.

On August 11, 2023, Etech collected 29 confirmation soil samples (NW1, NW2, NW3, EW1 through EW5, SW1 through SW5, WW1, WW2, WW3, and FL 22 @ 6 in through FL 34 @ 6 in) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory MDL. Chloride concentrations ranged from less than the laboratory MDL in soil sample NW1 to 416 mg/kg in soil sample FL 25 @ 6 in.

On August 14, 2023, Etech collected 39 confirmation soil samples (NW4, NW5, NW6, EW6 through EW9, SW6, SW7, and FL 35 @ 6 in through FL 64 @ 6 in) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria, NMOCD Reclamation Standards, and laboratory MDL in each of the submitted soil samples. Chloride concentrations ranged from less than the laboratory MDL in soil samples EW6, EW7, EW8, FL 52 @ 6 in, FL 55 @ 6 in, and FL 62 @ 6 in to 752 mg/kg in soil sample FL 38 @ 6 in. The chloride concentrations in soil samples FL 38 @ 6 in and FL 39 @ 6 in exceeded the NMOCD Reclamation Standard.

On August 17, 2023, based on laboratory analytical results, the excavation was further advanced in the area characterized by soil sample FL 9 @ 6 in. Etech collected one (1) confirmation soil sample (FL 9 @ 1) from the floor of the excavated area. The soil sample was submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that the BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria, NMOCD Reclamation Standards, and laboratory MDL.

On August 22, 2023, based on laboratory analytical results, the excavation was further advanced in the areas characterized by soil samples FL 38 @ 6 in and FL 39 @ 6 in. Etech collected two (2) confirmation soil samples (FL 38 @ 1 and FL 39 @ 1) from the floor of the excavated area. The soil samples were submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated that the chloride concentrations were less than the laboratory MDL in soil sample FL 39 @ 1 and 112 mg/kg in soil sample FL 38 @ 1, which were below the NMOCD Closure Criterion and NMOCD Reclamation Standard.

On October 5, 2023, Etech advanced two (2) additional hand-augered soil bores (NH and WH) to further characterize the affected area adjacent to and/or beneath the on-site containment area, storage tanks, and associated piping, appurtenances, and electrical facilities requiring deferral of remediation (henceforth, "Deferral Area"). During the advancement of the hand-augered soil bores, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses. The soil bores were advanced in one (1) foot increments until field observations and field test results suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards.

Based on field observations and field test data, four (4) delineation/deferral characterization soil samples (NH @ 1', NH @ Surface, WH @ 1', and WH @ Surface) were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory MDL. Chloride concentrations ranged from less than the laboratory MDL in soil sample WH @ 1' to 448 mg/kg in soil sample NH @ Surface. Based on these laboratory analytical results, the horizontal extent of impacted soil in the Deferral Area was adequately defined.

The final dimensions of the excavated area were approximately 184 to 286 feet in length, eight (8) to 110 feet in width, and six (6) inches to one (1) foot in depth. During the course of remediation activities, Etech transported approximately 712 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 816 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

The extents of the excavated area and the Deferral Area, as well as the locations of the hand-augered soil borings, test trench, and confirmation soil samples, are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data is provided in Appendix B. General photographs of the site are provided in Appendix C. Laboratory analytical reports are provided in Appendix D. Copies of all regulatory correspondence are provided in Appendix E.

5.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture free of noxious weeds during the first favorable growing season following closure of the site.

6.0 DEFERRAL REQUEST

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil remaining in-situ in the Deferral Area (characterized by sample point SP12) is adjacent to and/or underneath permanent storage tanks and associated pipes, appurtenances, and/or electrical facilities. Mewbourne Oil Company affirms that excavation of the Deferral Area would require the disconnection and removal of the storage tanks, pipes, permanent fencing, etc., which qualifies as "a major facility deconstruction", pursuant to Subsection 19.15.29.12 C.(2) NMAC.

The Deferral Area has been fully delineated, and laboratory analytical results from delineation/deferral characterization soil samples and excavation confirmation soil samples confirm that the in-situ contamination does not extend beyond the boundaries of the tank battery containment. Based on the relatively shallow depth of impacted soil (3 to 3.5 feet bgs), the depth to groundwater (>60 feet bgs), and the presence of a naturally occurring clay layer underlying the site beginning at approximately 15 feet bgs (see drilling log in Appendix A), leaving the contamination in-situ "does not cause an imminent risk to human health, the environment, or ground water", pursuant to Subsection 19.15.29.12 C.(2) NMAC. Final remediation and reclamation of the affected area will be conducted upon decommissioning and abandonment of the facility, in accordance with Sections 19.15.29.12 and 19.15.29.13 NMAC.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Mewbourne Oil Company provide copies of this *Remediation Summary & Deferral Request* to the appropriate agencies and request deferral be granted to the Charolais Frac site.

7.0 LIMITATIONS

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

This report has been prepared for the benefit of Mewbourne Oil Company. Use of the information contained in this report is prohibited without the consent of Etech and/or Mewbourne Oil Company.

8.0 DISTRIBUTION

Mewbourne Oil Company

4801 Business Park Blvd.

Hobbs, NM 88240

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1

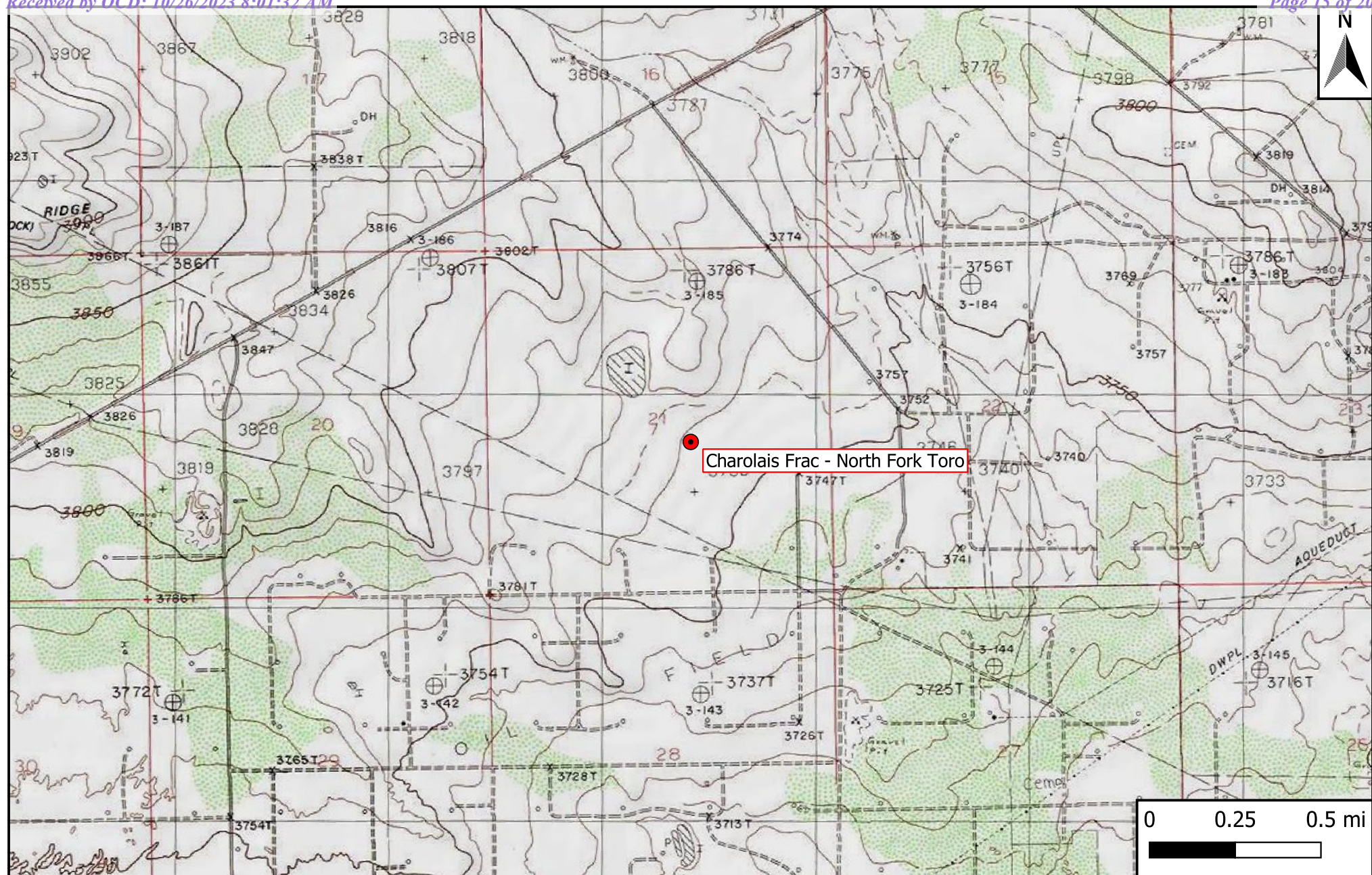
1220 South St. Francis Drive

Santa Fe, NM 87505

(Electronic Submission)

Figure 1

Topographic Map



Legend

- Site Location

Figure 1
Topographic Map
Mewbourne Oil Company
Charolais Frac – North Fork Toro
GPS: 32.644939, -103.460810
Lea County



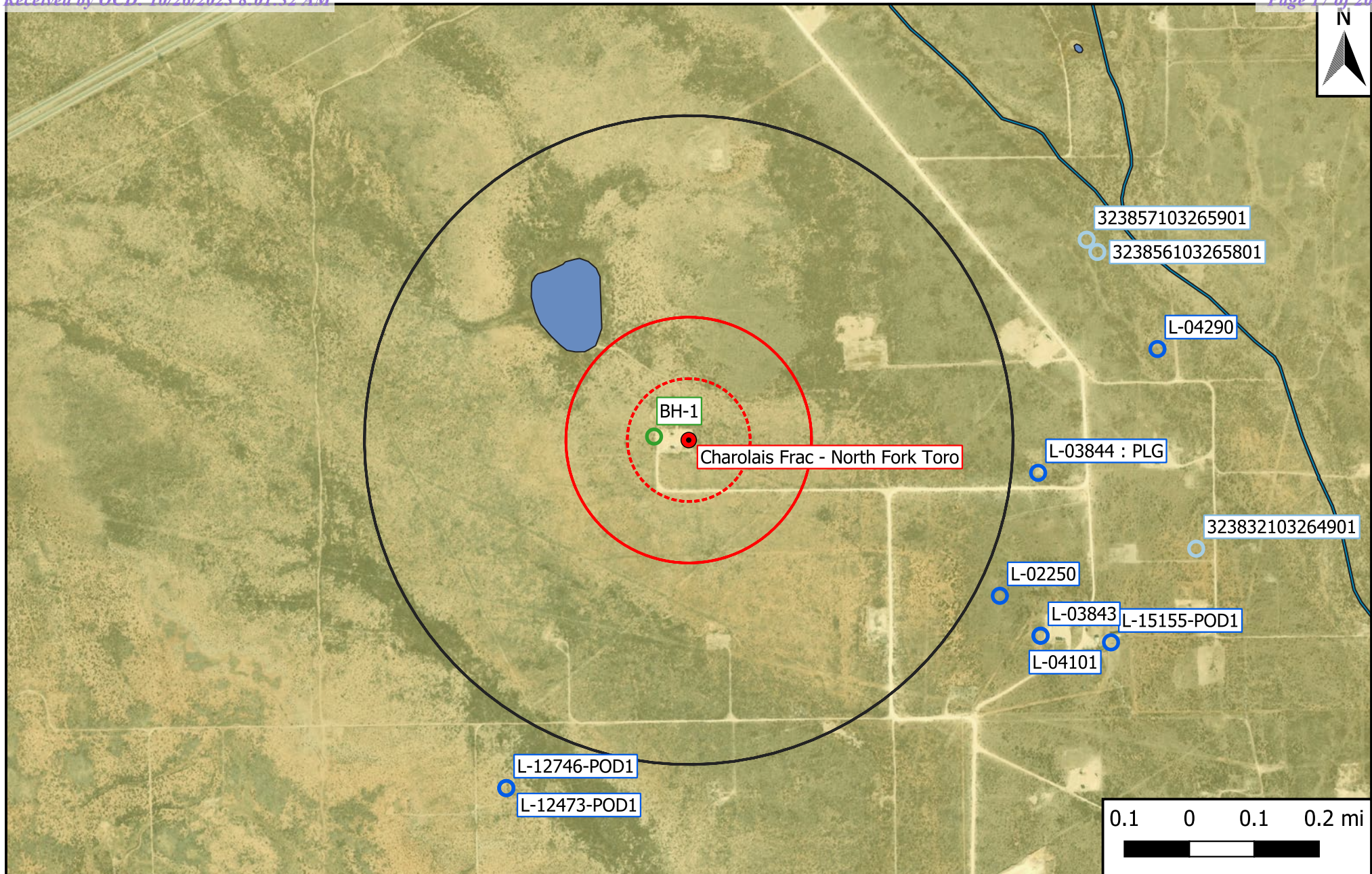
Drafted: bja

Checked: lc

Date: 8/3/23

Figure 2

Site Characterization Map



Legend

- | | | |
|------------------------------|-----------------------------------|----------------------|
| ● Site Location | ■ 1% Annual Flood Chance | ⋯ 500-Ft Radius |
| ○ Well - NMOSE | ■ Emergent/Forested Wetlands | ⋯ 1,000-Ft Radius |
| ○ Well - USGS | ■ Freshwater Pond/Lake | ⋯ 0.5-Mi Radius |
| ○ Well - Exploratory/Monitor | ■ Karst Potential (Low/Med./High) | ⋯ Municipal Boundary |
| — Potash Mine Workings | ■ Riverine | |

Figure 2
 Site Characterization Map
 Mewbourne Oil Company
 Charolais Frac – North Fork Toro
 GPS: 32.644939, -103.460810
 Lea County



Drafted: bja

Checked: lc

Date: 9/27/23

Figure 3

Site & Sample Location Map

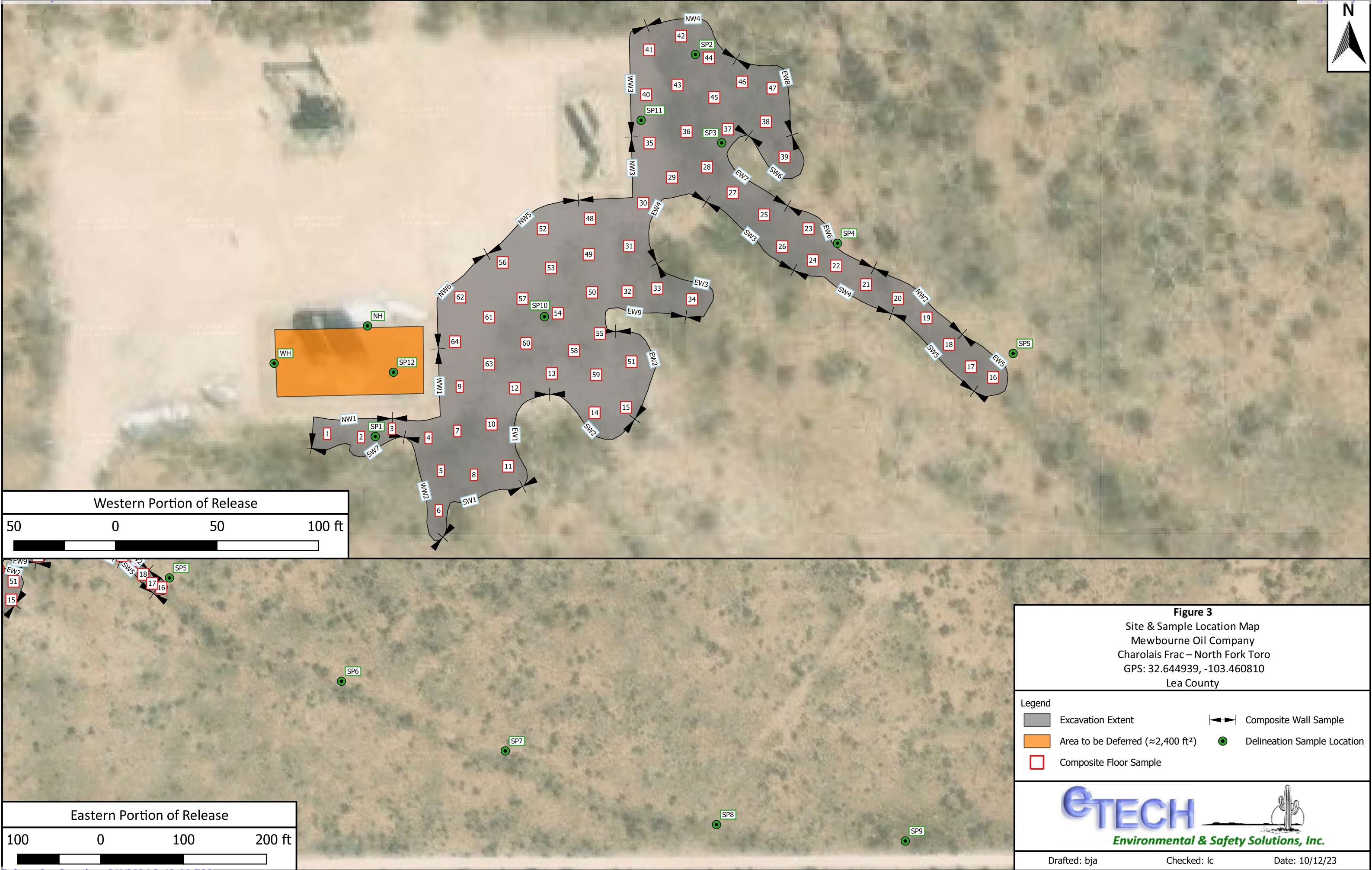


Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Table 1 Concentrations of BTEX, TPH & Chloride in Soil Mewbourne Oil Company Charolais Frac – North Fork Toro NMOCD Ref. #: nAPP2319833354											
NMOCD Closure Criteria				10	50	N/A	N/A	1,000	N/A	2,500	10,000
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	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)
Delineation & Deferral Characterization Samples											
SP5 @ 1	8/9/2023	1	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	320
SP6 @ Sur	8/9/2023	0	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	64.0
SP7 @ Sur	8/9/2023	0	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	256
SP8 @ Sur	8/9/2023	0	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	144
SP9 @ Sur	8/9/2023	0	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	352
SP12 @ Sur	8/10/2023	0	Deferral	<0.050	1.34	76.7	16,900	17,000	4,990	22,000	400
SP12 @ 1	8/10/2023	1	Deferral	1.07	60.9	267	2,150	2,420	523	2,940	640
SP12 @ 2	8/10/2023	2	Deferral	<0.050	<0.300	<50.0	1,810	1,810	988	2,800	1,250
SP12 @ 3	8/10/2023	3	Deferral	<0.050	<0.300	<10.0	222	222	168	390	2,400
SP12 @ 4	8/10/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,560
SP12 @ 6	8/10/2023	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,020
SP12 @ 8	8/10/2023	8	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
NH @ Surface	10/5/2023	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448
NH @ 1'	10/5/2023	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
WH @ Surface	10/5/2023	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	384
WH @ 1'	10/5/2023	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
Excavation Samples											
NW1	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	<16.0
NW2	8/11/2023	0-1	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	272
NW3	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	336
NW4	8/14/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
NW5	8/14/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
NW6	8/14/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
EW1	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
EW2	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	176
EW3	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
EW4	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
EW5	8/11/2023	0-1	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	16.0
EW6	8/14/2023	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
EW7	8/14/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
EW8	8/14/2023	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
EW9	8/14/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW1	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
SW2	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	224
SW3	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	16.0
SW4	8/11/2023	0-1	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	128
SW5	8/11/2023	0-1	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	80.0
SW6	8/14/2023	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW7	8/14/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
WW1	8/11/2023	0-1	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
WW2	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	160
WW3	8/11/2023	0-0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	48.0
FL 1 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	16.0

Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

Table 1 Concentrations of BTEX, TPH & Chloride in Soil Mewbourne Oil Company Charolais Frac – North Fork Toro NMOCD Ref. #: nAPP2319833354											
NMOCD Closure Criteria				10	50	N/A	N/A	1,000	N/A	2,500	10,000
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	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)
FL 2 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	16.0
FL 3 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	192
FL 4 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	80.0
FL 5 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	80.0
FL 6 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	16.0
FL 7 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	80.0
FL 8 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	272
FL 9 @ 6 in	8/9/2023	0.5	Excavated	<0.025	<0.275	129	2,340	2,470	467	2,940	128
FL 9 @ 1	8/17/2023	1	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	<16.0
FL 10 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	48.0
FL 11 @ 6 in	8/9/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	64.0
FL 12 @ 6 in	8/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FL 13 @ 6 in	8/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FL 14 @ 6 in	8/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FL 15 @ 6 in	8/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 16 @ 1	8/10/2023	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FL 17 @ 1	8/10/2023	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 18 @ 6 in	8/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
FL 19 @ 6 in	8/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
FL 20 @ 6 in	8/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	14.2	14.2	<10.0	14.2	144
FL 21 @ 1	8/10/2023	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400
FL 22 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
FL 23 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
FL 24 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	16.0
FL 25 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	416
FL 26 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	128
FL 27 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	48.0
FL 28 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
FL 29 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	32.0
FL 30 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	128
FL 31 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	16.0
FL 32 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	48.0
FL 33 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	96.0
FL 34 @ 6 in	8/11/2023	0.5	In-Situ	<0.025	<0.275	<25.0	<25.0	<25.0	<25.0	<25.0	128
FL 35 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FL 36 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FL 37 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FL 38 @ 6 in	8/14/2023	0.5	Excavated	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	752
FL 38 @ 1	8/22/2023	1	In-Situ	-	-	-	-	-	-	-	112
FL 39 @ 6 in	8/14/2023	0.5	Excavated	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	688
FL 39 @ 1	8/22/2023	1	In-Situ	-	-	-	-	-	-	-	<16.0
FL 40 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448
FL 41 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FL 42 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352

Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

Table 1 Concentrations of BTEX, TPH & Chloride in Soil Mewbourne Oil Company Charolais Frac – North Fork Toro NMOCD Ref. #: nAPP2319833354											
NMOCD Closure Criteria				10	50	N/A	N/A	1,000	N/A	2,500	10,000
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	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)
FL 43 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FL 44 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 45 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FL 46 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400
FL 47 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 48 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FL 49 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	416
FL 50 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FL 51 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 52 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FL 53 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FL 54 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	368
FL 55 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FL 56 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FL 57 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 58 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FL 59 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 60 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FL 61 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FL 62 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FL 63 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FL 64 @ 6 in	8/14/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0

Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.






Red: NMOCD Reclamation Standard exceedance.

Appendix A

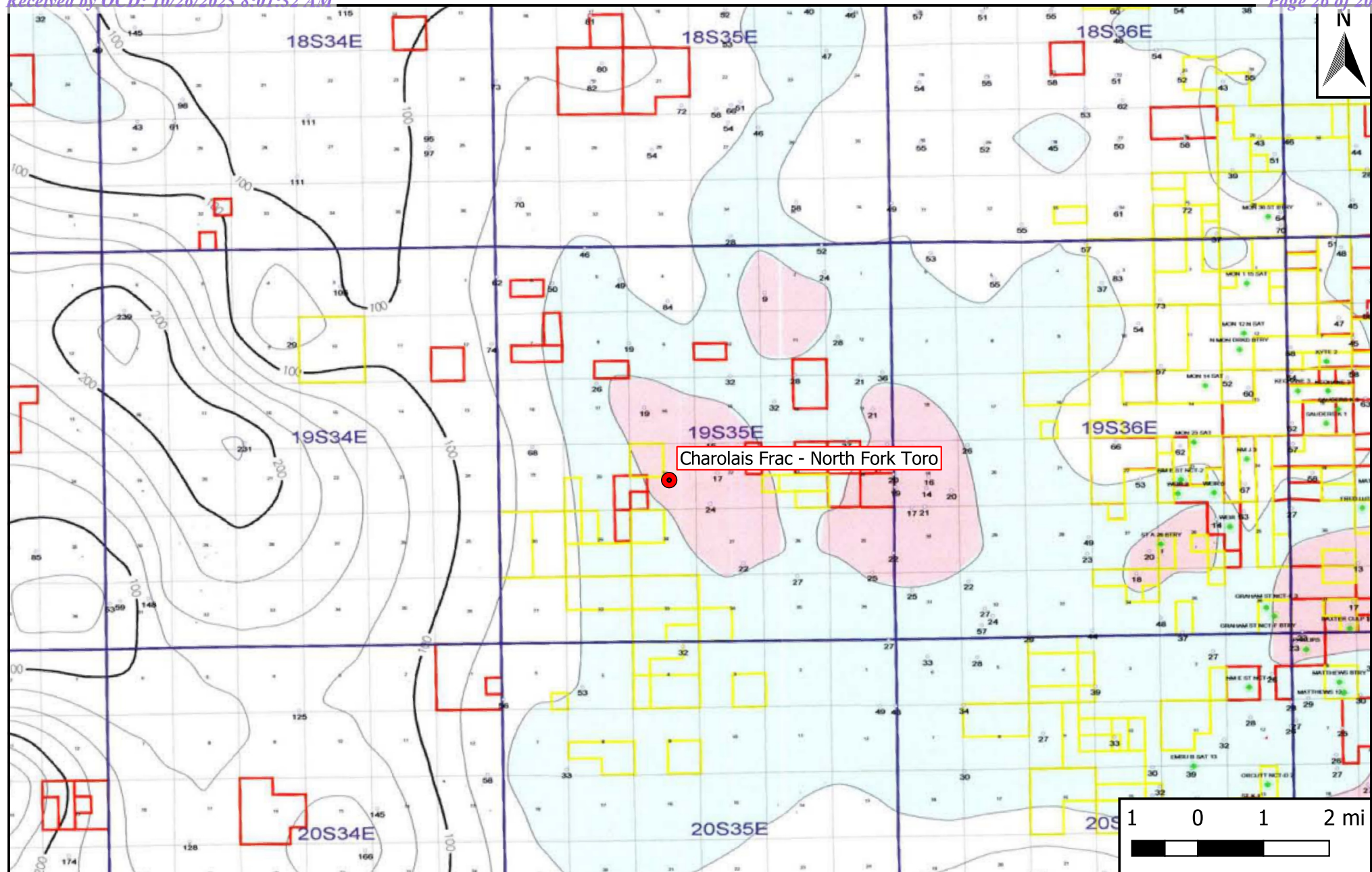
Depth to Groundwater Information



Soil Boring/Temporary Monitor Well BH-1

Company: Mewbourne Oil Company Site: Charolais Frac – North Fork Toro NMOCD Reference #: nAPP2319833354 Location: Lea Co., NM PLSS: U/L "J", Sec. 21, T19S, R35E			Well/Borehole ID: BH-1 Coordinates (NAD 83): 32.645029,-103.461725 Drilling Date: 9/21/2023 Depth of Boring (ft): 60 Depth to Groundwater (ft): >60 Plugging Date: 9/25/2023			Driller: H&R Enterprises, LLC Drilling Method: Air Rotary Logged By: Michael Collier Drafted By: B. Arguijo Draft Date: 9/27/2023			
Completion: N/A			Casing: N/A			Screen: N/A			
Comments: N/A									
Depth (ft)	Groundwater	Lithology	Material Description	Petroleum Odor	Petroleum Stain	PID Reading	Well Construction		
0			50%-Red Sand 50%-Caliche	-	-	-	<div></div> <div>Open Hole</div>	<div></div>	
5				95%-Red Sand 5%-Caliche	-	-			-
10					-	-			-
15					100%-Red Clay	-			-
20					-	-			-
25			-		-	-			
30			-		-	-			
35			-		-	-			
40			-		-	-			
45			-		-	-			
50			-		-	-			
55					-	-			-
60									
65			Notes: • Lines between material types represent approximate boundaries. Actual transitions may be gradual. • The exploratory soil boring was left open for over 72 hours. No indications of inflow and/or accumulation of water were noted during the advancement of the soil boring.						

Disclaimer This bore log is intended for environmental not geotechnical purposes.



Legend

- Site Location

Figure 4

Inferred Depth to Groundwater Trend Map
 Mewbourne Oil Company
 Charolais Frac – North Fork Toro
 GPS: 32.644939, -103.460810
 Lea County



Drafted: bja

Checked: lc

Date: 8/4/23



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

(R=POD has been replaced,
O=orphaned,

C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
L_02250		L	LE	1	3	3	22	19S	35E	645137	3612586*	863	50	20	30
L_03844		L	LE	1	3	3	22	19S	35E	645232	3612891*	870	71	27	44
L_12473 POD1		L	LE	2	1	2	27	19S	38E	643913	3612109	974	105	60	45
L_12746 POD1		L	LE	4	2	4	27	19S	38E	643913	3612109	974	128	58	70
L_03843		L	LE	3	3	3	22	19S	35E	645238	3612487*	998	73	27	46
L_04101		L	LE	3	3	3	22	19S	35E	645238	3612487*	998	50	35	15

Average Depth to Water: **37 feet**

Minimum Depth: **20 feet**

Maximum Depth: **60 feet**

Record Count:6

UTMNAD83 Radius Search (in meters):

Easting (X): 644365.17

Northing (Y): 3612972.13

Radius: 1000

*UTM location was derived from PLSS - see Help

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9/11/23 3:56 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)				(NAD83 UTM in meters)		
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y			
L	02250	1	3	3	22	19S	35E	645137	3612586*			
<hr/>												
Driller License:		144		Driller Company:			QUARLES DRILLING COMPANY					
Driller Name:		QUARLES, O.L.										
Drill Start Date:		04/01/1954		Drill Finish Date:			04/01/1954		Plug Date:			
Log File Date:		04/13/1954		PCW Rcv Date:			Source:			Shallow		
Pump Type:					Pipe Discharge Size:			Estimated Yield:				
Casing Size:		6.00		Depth Well:			50 feet		Depth Water:		20 feet	
<hr/>												
Water Bearing Stratifications:				Top	Bottom	Description						
				20	40	Sandstone/Gravel/Conglomerate						
				40	49	Sandstone/Gravel/Conglomerate						
<hr/>												
Casing Perforations:				Top	Bottom							
				20	48							

*UTM location was derived from PLSS - see Help

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8/3/23 12:50 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	03844		1	3	22	19S	35E	645232	3612891*

Driller License: 111 **Driller Company:** BURKE, EDWARD B.

Driller Name:

Drill Start Date: 04/23/1958 **Drill Finish Date:** 04/23/1958 **Plug Date:** 05/27/1958

Log File Date: 04/30/1958 **PCW Rev Date:** **Source:** Shallow

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

Casing Size: 7.00 **Depth Well:** 71 feet **Depth Water:** 27 feet

Water Bearing Stratifications:	Top	Bottom	Description
	55	59	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	23	64

*UTM location was derived from PLSS - see Help

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8/3/23 12:50 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)		(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L 12473	POD1	2	1	2	27	19S	38E	643913	3612109 
Driller License: 1607		Driller Company:				DURAN DRILLING			
Driller Name: DURAN, LUIS (LD)									
Drill Start Date:	10/01/2009	Drill Finish Date:				10/05/2009		Plug Date:	
Log File Date:	10/21/2009	PCW Rcv Date:						Source: Shallow	
Pump Type:		Pipe Discharge Size:						Estimated Yield: 200 GPM	
Casing Size:	5.00	Depth Well:				105 feet		Depth Water: 60 feet	
Water Bearing Stratifications:		Top	Bottom	Description					
		60	83	Sandstone/Gravel/Conglomerate					
Casing Perforations:		Top	Bottom						
		65	105						

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POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	12746 POD1	4	2	4	27	19S	38E	643913	3612109 
Driller License: 1626		Driller Company:		TAYLOR DRILLING					
Driller Name:		TAYLOR, ROY ALLEN							
Drill Start Date: 04/06/1977		Drill Finish Date:		04/08/2011		Plug Date:			
Log File Date: 05/02/2011		PCW Rcv Date:				Source: Shallow			
Pump Type: SUBMER		Pipe Discharge Size:				Estimated Yield: 30 GPM			
Casing Size: 6.00		Depth Well:		128 feet		Depth Water: 58 feet			
Water Bearing Stratifications:		Top	Bottom	Description					
		59	66	Other/Unknown					
		66	125	Sandstone/Gravel/Conglomerate					
Casing Perforations:		Top	Bottom						
		68	128						

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POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	03843		3	3	22	19S	35E	645238	3612487* 

Driller License:	111	Driller Company:	BURKE, EDWARD B.	
Driller Name:				
Drill Start Date:	04/22/1958	Drill Finish Date:	04/22/1958	Plug Date:
Log File Date:	04/30/1958	PCW Rev Date:		Source: Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:
Casing Size:	7.00	Depth Well:	73 feet	Depth Water: 27 feet

Casing Perforations:	Top	Bottom
	47	73

*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	04101		3	3	22	19S	35E	645238	3612487*

Driller License: 205 **Driller Company:** WRIGHT, WILLIAM C.

Driller Name:

Drill Start Date: 12/10/1959 **Drill Finish Date:** 12/11/1959 **Plug Date:**

Log File Date: 12/18/1959 **PCW Rev Date:** **Source:** Shallow

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

Casing Size: 6.63 **Depth Well:** 50 feet **Depth Water:** 35 feet

Water Bearing Stratifications:	Top	Bottom	Description
	38	48	Sandstone/Gravel/Conglomerate

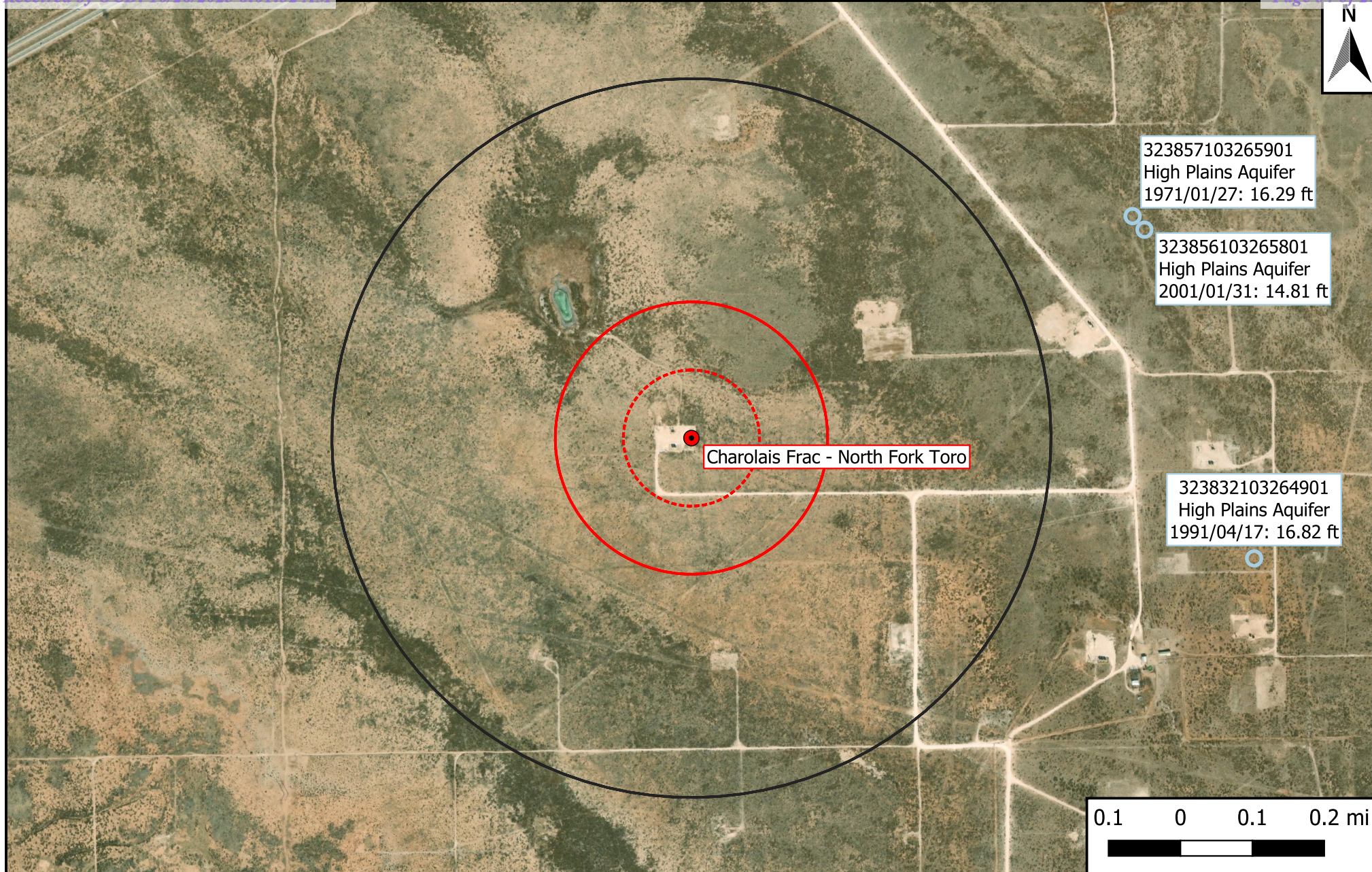
Casing Perforations:	Top	Bottom
	30	50

*UTM location was derived from PLSS - see Help

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POINT OF DIVERSION SUMMARY



Legend

- Site Location
- Well - USGS
- ⊞ 500-Ft Radius
- ⊞ 1,000-Ft Radius
- ⊞ 0.5-Mi Radius

Figure 5
USGS Well Proximity Map
Mewbourne Oil Company
Charolais Frac – North Fork Toro
GPS: 32.644939, -103.460810
Lea County



Drafted: bja

Checked: lc

Date: 8/5/23

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Agency code = usgs

site_no list =

- 323857103265901

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload**USGS 323857103265901 19S.35E.15.33434**

Lea County, New Mexico

Latitude 32°38'57", Longitude 103°26'59" NAD27

Land-surface elevation 3,752 feet above NAVD88

This well is completed in the High Plains aquifer (N100HGHPN) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1966-02-09		D	72019	18.22			P	Z			A
1971-01-27		D	72019	16.29			1	Z			A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Agency code = usgs
site_no list =

- 323856103265801

Minimum number of levels = 1
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USGS 323856103265801 19S.35E.15.334424

Lea County, New Mexico
Latitude 32°38'56", Longitude 103°26'58" NAD27
Land-surface elevation 3,751 feet above NAVD88
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1961-03-03			D	72019	14.73			1	Z		A
1966-02-09			D	72019	14.66			1	Z		A
1966-03-18			D	72019	14.70			1	Z		A
1971-01-27			D	72019	14.47			1	Z		A
1976-01-29			D	72019	14.35			1	Z		A
1981-01-23			D	72019	14.45			1	Z		A
1986-02-04			D	72019	14.48			1	Z		A
1991-04-17			D	72019	14.59			1	Z		A

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1996-01-25		D	72019	14.60			1	S			A
2001-01-31		D	72019	14.81			1	S			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Agency code = usgs

site_no list =

- 323832103264901

Minimum number of levels = 1

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USGS 323832103264901 19S.35E.22.14341

Lea County, New Mexico

Latitude 32°38'32", Longitude 103°26'49" NAD27

Land-surface elevation 3,742 feet above NAVD88

The depth of the well is 45 feet below land surface.

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1963-03-19			D	72019	16.50		1	Z			A
1966-03-18			D	72019	17.01		1	Z			A
1971-01-27			D	72019	16.68		1	Z			A
1976-01-29			D	72019	16.27		1	Z			A
1981-01-23			D	72019	16.54		1	Z			A
1986-02-04			D	72019	16.54		1	Z			A
1991-04-17			D	72019	16.82		1	Z			A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Appendix B

Field Data



Sample Log

Date: _____

Project: Charolais Frac North Fork

Project Number: 18548

Latitude: 32.64475

Longitude: -103.46106

Sample ID	PID/Odor	Chloride Conc.	GPS
SP6 @ SUR 6.0			
SP6 @ SUR 1.4			
SP7 @ SUR 3.0			
SP8 @ SUR 2.8			
SP9 @ SUR 3.4			
FL 1 @ 6 in 2.0			
FL 2 @ 6 in 1.4			
FL 3 @ 6 in 3.0			
FL 4 @ 6 in 2.0			
FL 5 @ 6 in 1.4			
FL 6 @ 6 in 2.4			
FL 7 @ 6 in 1.4			
FL 8 @ 6 in 2.4			
FL 9 @ 6 in 2.0			
FL 10 @ 6 in 2.0			
FL 11 @ 6 in 2.2			
SP12 @ SUR 3.6			
SP12 @ 1 3.2	High		
SP12 @ 2 7.6	High		
SP12 @ 3 7.8	High		
SP12 @ 4 8.0	Light		
SP12 @ 6 5.2	NONE		
SP12 @ 8 2.4	NONE		
FL 12 @ 6 in 2.0			
FL 13 @ 6 in 2.0			
FL 14 @ 6 in 1.6			
FL 15 @ 6 in 2.2			
FL 16 @ 1 2.4			
FL 17 @ 1 2.0			
FL 18 @ 6 in 3.0			
FL 19 @ 6 in 3.6			
FL 20 @ 6 in 2.2			
FL 21 @ 1 2.0			
FL 22 @ 6 in 3.0			
FL 23 @ 6 in 1.4			

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



Sample Log

Date: _____

Project: Charolais Frac North Fork

Project Number: 18548 Latitude: 32.64475 Longitude: -103.46106

Sample ID	PID/Odor	Chloride Conc.	GPS
FL 24 @ 6 in	2.8	320	
FL 25 @ 6 in	3.0	356	
FL 26 @ 6 in	1.8	164	
FL 27 @ 6 in	1.4	112	
FL 28 @ 6 in	2.0	192	
FL 29 @ 6 in	1.8	164	
FL 30 @ 6 in	1.8	164	
FL 31 @ 6 in	1.6	136	
FL 32 @ 6 in	1.4	112	
FL 33 @ 6 in	2.0	192	
FL 34 @ 6 in	1.8	164	
WW1	1.4	112	
WW2	2.0	192	
WW3	1.6	136	
NW1	1.4	112	
NW2	3.0	356	
NW3	2.2	220	
EW1	1.4	112	
EW2	2.0	192	
EW3	1.4	112	
EW4	3.4	436	
EW5	1.4	112	
SW1	1.4	112	
SW2	2.6	284	
SW3	1.4	112	
SW4	1.6	136	
SW5	1.4	112	
FL 35 @ 6 in	1.8	164	
FL 36 @ 2	2.0	192	
FL 37 @ 6 in	2.2	220	
FL 38 @ 6 in	1.4	112	
FL 39 @ 6 in	1.4	112	
FL 40 @ 6 in	3.0	356	
FL 41 @ 6 in	3.0	356	
FL 42 @ 6 in	1.4	112	
FL 43 @ 6 in	1.6	136	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

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

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

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

GPS Sample Points, Center of Comp Areas



Sample Log

Date: _____

Project: _____

Project Number: _____

Latitude: _____

Longitude: _____

Sample ID	PID/Odor	Chloride Conc.	GPS
FL 44 @ 6 in	2.2	220	
FL 45 @ 6 in	2.4	252	
FL 46 @ 6 in	3.0	356	
FL 47 @ 6 in	2.0	192	
EW 6	2.0	192	
EW 7	2.4	252	
EW 8	3.0	356	
NW 4	2.8	320	
NW 5	1.8	164	
SW 6	1.4	112	
SW 7	2.0	192	
FL 48 @ 6 in	1.4	112	
FL 49 @ 6 in	3.0	356	
FL 50 @ 6 in	1.8	164	
FL 51 @ 6 in	1.4	112	
FL 52 @ 6 in	1.4	112	
FL 53 @ 6 in	2.0	192	
FL 54 @ 6 in	3.0	356	
FL 55 @ 6 in	1.4	112	
FL 56 @ 6 in	1.6	136	
FL 57 @ 6 in	1.8	164	
FL 58 @ 6 in	2.0	192	
FL 59 @ 6 in	1.4	112	
NW 6	1.8	164	
EW 9	1.6	136	
FL 60 @ 6 in	1.4	112	
FL 61 @ 6 in	2.0	192	
FL 62 @ 6 in	2.2	220	
FL 63 @ 6 in	3.0	356	
FL 64 @ 6 in	1.4	112	
FL 38 @ 1	2.2	220	
FL 39 @ 1	2.0	192	

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

SAND CHUTE FRAC (PASTURE SAMPLES) NORTH FORK

7-5-23 SP1 @ 1' - ~~32.64516, -103.46065~~ 32.64462, -103.46116
 $10.4/30.1 = 2.88 = .22 = 633 \times$

SP1 @ 2'

$10.1/30.1 = 2.98 = .18 = 536 \checkmark$

8-6-23 SP2 @ 1' - 32.64516, -103.46065

$10.4/30.0 = 2.88 = .05 = 143 \checkmark$

SP2 @ 2'

$10.4/30.0 = 2.88 = N/A = N/A$

SP3 @ 1' - 32.64504, -103.46061

$10.6/30.0 = 2.83 = .05 = 141 \checkmark$

SP3 @ 2'

$10.6/30.0 = 2.83 = N/A = N/A$

SP4 @ 1' - 32.64492, -103.46045

$11.0/30.1 = 2.73 = .19 = 518 \checkmark$

SP4 @ 2'

$10.5/30.3 = 2.88 = N/A = N/A$

SP4 @ 3'

$10.4/30.0 = 2.88 = N/A = N/A$

SP5 @ 1' - 32.64477, -103.46022

$10.4/30.1 = 2.89 = .10 = 288 \checkmark$

SP5 @ 2'

N/A

SP6 @ 1' - 32.64459, -103.45994

$10.5/30.0 = 2.85 = .15 = 427 \checkmark$

SP70 1' - 32.64449, -103.45967

$$11.0/30.0 = 2.72 = .17 = 462 \checkmark$$

SP80 1' - 32.64426, -103.45911

$$10.1/30.3 = 3 = .28 = 839 \times$$

SP90 1' - 32.64398, -103.45835

$$10.7/30.0 = 2.80 = .08 = 223 \checkmark$$

SP80 2'

$$10.8/30.2 = 2.99 = .85 = 139 \checkmark$$

North Fork SAND CHUTE 7-27-23

SP10 @ Surface — 32.64481, -103.46089

$$10.4/30.3 = 2.91 = .91 = 2,647 \times$$

SP10 @ 6"

$$10.0/30.1 = 3.01 = .05 = 150 \checkmark \rightarrow \text{NO SMELL OF TPH.}$$

SP10 @ 1'

$$10.1/30.3 = \text{N/A} =$$

SP10 @ 2'

$$10.0/30.1 = \text{N/A} =$$

~~SP10 @ 3'~~

Header

SP11 @ Surface — 32.64506, -103.46110

$$10.5/30.2 = 2.87 = 1.10 = 3,156 \times$$

SP11 @ 1'

$$10.3/30.2 = 2.93 = .42 = 1,230 \times$$

SP11 @ 2'

$$10.1/30.3 = 3 = .07 = 209 \checkmark \rightarrow \text{NO SMELL OF TPH.}$$

SP11 @ 3'

$$10.1/30.3 = \text{N/A} =$$

TRUCKS

SP12 @ Surface — clay @ 1' maybe 6"

Appendix C

Photographic Log

Photographic Log

Photo Number: 1	 <p>13Sep23 08:10 MOC Charolais North Fork Hobbs NM 88240, United States © 13-Sep-23 08:10:08</p>
Photo Direction: Southeast	
Photo Description: View of the affected area.	

Photo Number: 2	 <p>13Sep23 08:09 MOC Charolais North Fork Hobbs NM 88240, United States © 13-Sep-23 08:09:23</p>
Photo Direction: West	
Photo Description: View of the affected area.	

Photographic Log



Photo Number: 3	
Photo Direction: East	
Photo Description: View of the affected area.	

Photo Number: 4	
Photo Direction: East-Northeast	
Photo Description: View of the affected area.	

Photographic Log



Photo Number: 5	
Photo Direction: South-Southwest	
Photo Description: View of the affected area.	

Photo Number: 6	
Photo Direction: Northwest	
Photo Description: View of the affected area.	

Photographic Log



Photo Number: 7	
Photo Direction: Southeast	
Photo Description: View of the affected area.	

Photo Number: 8	
Photo Direction: Southwest	
Photo Description: View of the affected area.	

Photographic Log


Photo Number: 9	
Photo Direction: South-Southeast	
Photo Description: View of soil boring BH-1.	

Photo Number: 10	
Photo Direction: North-Northeast	
Photo Description: View of the excavated area.	

Photographic Log


Photo Number: 11	
Photo Direction: West	
Photo Description: View of the excavated area.	

Photo Number: 12	
Photo Direction: North	
Photo Description: View of the excavated area.	

Photographic Log


Photo Number: 13	
Photo Direction: East	
Photo Description: View of the excavated area.	

Photo Number: 14	
Photo Direction: Northeast	
Photo Description: View of the excavated area.	

Photographic Log


Photo Number: 15	
Photo Direction: South	
Photo Description: View of the excavated area.	

Photo Number: 16	
Photo Direction: East	
Photo Description: View of the excavated area.	

Photographic Log


Photo Number: 17	
Photo Direction: Southeast	
Photo Description: View of the excavated area.	

Photo Number: 18	
Photo Direction: Northwest	
Photo Description: View of the excavated area.	

Photographic Log




Photo Number: 19	
Photo Direction: South	
Photo Description: View of the remediated area after backfill and regrading.	

Photo Number: 20	
Photo Direction: Southeast	
Photo Description: View of the remediated area after backfill and regrading.	

Photographic Log

Photo Number: 21	
Photo Direction: Southeast	
Photo Description: View of the remediated area after backfill and regrading.	

Photo Number: 22	
Photo Direction: West	
Photo Description: View of the remediated area after backfill and regrading.	

Appendix D

Laboratory Analytical Reports



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

August 16, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: CHAROLAIS FRAC NORTH FORK

Enclosed are the results of analyses for samples received by the laboratory on 08/09/23 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 1 @ 6 IN. (H234274-01)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	166	83.2	200	0.359	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	150	74.8	200	1.33	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	318	79.5	400	0.888	

Surrogate: 1-Chlorooctane 78.6 % 44.9-134

Surrogate: 1-Chlorooctadecane 77.8 % 41.4-161

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 2 @ 6 IN. (H234274-02)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40	
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79	
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219	
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04	
Total BTX	<0.275	0.275	08/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/10/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	166	83.2	200	0.359	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	150	74.8	200	1.33	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	318	79.5	400	0.888	

Surrogate: 1-Chlorooctane 75.3 % 44.9-134

Surrogate: 1-Chlorooctadecane 74.3 % 41.4-161

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 3 @ 6 IN. (H234274-03)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	166	83.2	200	0.359	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	150	74.8	200	1.33	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	318	79.5	400	0.888	

Surrogate: 1-Chlorooctane 76.9 % 44.9-134

Surrogate: 1-Chlorooctadecane 76.1 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 4 @ 6 IN. (H234274-04)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40	
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79	
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219	
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04	
Total BTEX	<0.275	0.275	08/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	166	83.2	200	0.359	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	150	74.8	200	1.33	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	318	79.5	400	0.888	

Surrogate: 1-Chlorooctane 69.7 % 44.9-134

Surrogate: 1-Chlorooctadecane 68.2 % 41.4-161

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 5 @ 6 IN. (H234274-05)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	166	83.2	200	0.359	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	150	74.8	200	1.33	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	318	79.5	400	0.888	

Surrogate: 1-Chlorooctane 72.8 % 44.9-134

Surrogate: 1-Chlorooctadecane 71.6 % 41.4-161

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 6 @ 6 IN. (H234274-06)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40	
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79	
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219	
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04	
Total BTEx	<0.275	0.275	08/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	166	83.2	200	0.359	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	150	74.8	200	1.33	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	318	79.5	400	0.888	

Surrogate: 1-Chlorooctane 78.5 % 44.9-134

Surrogate: 1-Chlorooctadecane 78.0 % 41.4-161

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 7 @ 6 IN. (H234274-07)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	166	83.2	200	0.359	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	150	74.8	200	1.33	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	318	79.5	400	0.888	

Surrogate: 1-Chlorooctane 73.9 % 44.9-134

Surrogate: 1-Chlorooctadecane 71.2 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 9 @ 6 IN. (H234274-08)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/10/2023	ND	416	104	400	0.00		

TPH TX1005	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	129	25.0	08/10/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	2340	25.0	08/10/2023	ND	187	93.3	200	16.3	QM-07
DRO >C28-C35	467	25.0	08/10/2023	ND					
Total TPH C6-C35*	2940	25.0	08/10/2023	ND	365	91.2	400	17.1	QM-07

Surrogate: 1-Chlorooctane 90.9 % 44.9-134

Surrogate: 1-Chlorooctadecane 96.3 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 10 @ 6 IN. (H234274-09)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/10/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/10/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/10/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/10/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 82.2 % 44.9-134

Surrogate: 1-Chlorooctadecane 93.4 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 8 @ 6 IN. (H234274-10)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/10/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/10/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/10/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/10/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 90.5 % 44.9-134

Surrogate: 1-Chlorooctadecane 103 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 11 @ 6 IN. (H234274-11)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEx	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/10/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/10/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/10/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/10/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 85.9 % 44.9-134

Surrogate: 1-Chlorooctadecane 96.9 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP5 @ 1 (H234274-12)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40	
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79	
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219	
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04	
Total BTEX	<0.275	0.275	08/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	08/10/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/10/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/10/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/10/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/10/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 86.6 % 44.9-134

Surrogate: 1-Chlorooctadecane 102 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP6 @ SUR (H234274-13)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

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	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/10/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/10/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/10/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/10/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 78.4 % 44.9-134

Surrogate: 1-Chlorooctadecane 89.1 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP7 @ SUR (H234274-14)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/10/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/10/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/10/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/10/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 86.0 % 44.9-134

Surrogate: 1-Chlorooctadecane 97.5 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP8 @ SUR (H234274-15)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEx	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/10/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 87.0 % 44.9-134

Surrogate: 1-Chlorooctadecane 98.9 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/09/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/09/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP9 @ SUR (H234274-16)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/12/2023	ND	1.92	95.9	2.00	2.40		
Toluene*	<0.050	0.050	08/12/2023	ND	1.82	90.9	2.00	6.79		
Ethylbenzene*	<0.050	0.050	08/12/2023	ND	1.85	92.4	2.00	0.000219		
Total Xylenes*	<0.150	0.150	08/12/2023	ND	5.37	89.5	6.00	2.04		
Total BTEX	<0.275	0.275	08/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	08/10/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/11/2023	ND	176	88.1	200	18.9	
DRO >C12-C28	<25.0	25.0	08/11/2023	ND	187	93.3	200	16.3	
DRO >C28-C35	<25.0	25.0	08/11/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/11/2023	ND	365	91.2	400	17.1	

Surrogate: 1-Chlorooctane 87.4 % 44.9-134

Surrogate: 1-Chlorooctadecane 100 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:				Mewbourne Oil Company			
Project Manager:				Lance Crenshaw			
Address:				2617 W Marland Blvd			
City:		Hobbs		State:		NM	
Zip:		88240					
Phone #:		575-396-2378		Fax #:		575-396-1429	
Project #:		18548		Project Owner:		Mewbourne Oil Company	
Project Name:				Charolais Frac North Fork			
Project Location:				UL/J Sec 21 T19S - R35E			
Sampler Name:				<i>Dominic Casarez</i>			
FOR LAB USE ONLY							
Lab I.D.		Sample I.D.		GRAB OR (COMP.)		# CONTAINERS	
<i>H234274</i>							
<i>DC 1</i>		<i>FL 1 @ 6.in</i>		<i>C</i>		<i>1</i>	
<i>2</i>		<i>FL 2 @ 6.in</i>					
<i>3</i>		<i>FL 3 @ 6.in</i>					
<i>4</i>		<i>FL 4 @ 6.in</i>					
<i>5</i>		<i>FL 5 @ 6.in</i>					
<i>6</i>		<i>FL 6 @ 6.in</i>					
<i>7</i>		<i>FL 7 @ 6.in</i>					
<i>8</i>		<i>FL 8 @ 6.in</i>					
<i>9</i>		<i>FL 9 @ 6.in</i>					
<i>10</i>		<i>FL 10 @ 6.in</i>					
		<i>FL 8 @ 6.in</i>					

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Relinquished By:				Date:	Received By:	Result:		Add'l Phone #:
<i>[Signature]</i>				<i>8-9</i>	<i>[Signature]</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Time:				<i>10:10</i>		<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #:
Date:								
Time:								
Delivered By: (Circle One)				# <i>40</i>	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:				<i>-4.9c</i>	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(initials) <i>SO</i>		

REMARKS: Email results to PM@etechenv.com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
FORM-006 R 2.0


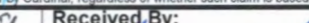



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Mewbourne Oil Company				BILL TO				ANALYSIS REQUEST																					
Project Manager: Lance Crenshaw				P.O. #:																									
Address: 2617 W Marland Blvd				Company: Mewbourne																									
City: Hobbs		State: NM		Zip: 88240		Attn: Connor Walker																							
Phone #: 575-396-2378		Fax #: 575-396-1429		Address:		City:																							
Project #: 18548		Project Owner: Mewbourne Oil Company		State:		Zip:																							
Project Name: Charolais Frac North Fork				Phone #:																									
Project Location: UL/J Sec 21 T19S - R35E				Fax #:																									
Sampler Name: <i>Dominic Casarez</i>																													
FOR LAB USE ONLY																													
Lab I.D.		Sample I.D.		GRAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING																	
				GROUNDWATER		WASTEWATER		SOIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME		Chloride		TPH		BTEX 8021	
<i>14234274</i>				<i>C</i>		<i>1</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>8-9</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>									
<i>11 FL 11 @ 6 in</i>				<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>									
<i>12 SP5 @ 1</i>				<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>									
<i>13 SP6 @ SUR</i>				<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>									
<i>14 SP7 @ SUR</i>				<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>									
<i>15 SP8 @ SUR</i>				<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>									
<i>16 SP9 @ SUR</i>				<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>									

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Relinquished By: 		Date: 8/9 Time: 1610		Received By: 		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: _____ Add'l Fax #: _____	
Relinquished By:		Date:		Received By:		REMARKS: Email results to PM@etechenv.com			
Time:		Time:							
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		#140 -4.9°C		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) 			

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FORM-006 R 2.0



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

August 16, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: CHAROLAIS FRAC NORTH FORK

Enclosed are the results of analyses for samples received by the laboratory on 08/10/23 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 12 @ 6 IN (H234326-01)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/14/2023	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	08/14/2023	ND	159	79.5	200	0.686	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	173	86.3	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 13 @ 6 IN (H234326-02)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 14 @ 6 IN (H234326-03)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

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	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 81.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 15 @ 6 IN (H234326-04)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

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	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 81.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 16 @ 1 (H234326-05)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 80.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.6 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 17 @ 1 (H234326-06)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

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	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.9 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 18 @ 6 IN (H234326-07)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

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	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 90.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 19 @ 6 IN (H234326-08)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEx	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.1 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 20 @ 6 IN (H234326-09)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	14.2	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 85.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 21 @ 1 (H234326-10)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SP 12 @ 1 (H234326-11)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.07	0.500	08/16/2023	ND	2.04	102	2.00	1.76	
Toluene*	17.1	0.500	08/16/2023	ND	1.97	98.6	2.00	0.763	
Ethylbenzene*	16.2	0.500	08/16/2023	ND	1.97	98.6	2.00	3.06	
Total Xylenes*	26.6	1.50	08/16/2023	ND	5.91	98.5	6.00	3.75	
Total BTEX	60.9	3.00	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	08/14/2023	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*	267	50.0	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	2150	50.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	523	50.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SP 12 @ 2 (H234326-12)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEx	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1250	16.0	08/14/2023	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*	<50.0	50.0	08/14/2023	ND	170	84.8	200	1.69		
DRO >C10-C28*	1810	50.0	08/14/2023	ND	179	89.4	200	6.01		
EXT DRO >C28-C36	988	50.0	08/14/2023	ND						

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 197 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SP 12 @ 3 (H234326-13)

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	08/15/2023	ND	2.04	102	2.00	1.76	
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2400	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	222	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	168	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SP 12 @ 4 (H234326-14)

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	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTEx	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2560	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SP 12 @ 6 (H234326-15)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/15/2023	ND	2.04	102	2.00	1.76		
Toluene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	0.763		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.97	98.6	2.00	3.06		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.91	98.5	6.00	3.75		
Total BTX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1020	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 85.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SP 12 @ 8 (H234326-16)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/15/2023	ND	2.00	99.8	2.00	1.06	QR-03	
Toluene*	<0.050	0.050	08/15/2023	ND	1.88	93.8	2.00	0.484		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.85	92.6	2.00	0.232		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.40	90.0	6.00	0.616		
Total BTEX	<0.300	0.300	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/14/2023	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	08/14/2023	ND	170	84.8	200	1.69		
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	179	89.4	200	6.01		
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND						

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/10/2023
 Reported: 08/16/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19 - R35E

Sampling Date: 08/10/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SP 12 @ SUR (H234326-17)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.00	99.8	2.00	1.06	
Toluene*	<0.050	0.050	08/15/2023	ND	1.88	93.8	2.00	0.484	
Ethylbenzene*	0.333	0.050	08/15/2023	ND	1.85	92.6	2.00	0.232	
Total Xylenes*	1.01	0.150	08/15/2023	ND	5.40	90.0	6.00	0.616	
Total BTEX	1.34	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	08/14/2023	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*	76.7	50.0	08/14/2023	ND	170	84.8	200	1.69	
DRO >C10-C28*	16900	50.0	08/14/2023	ND	179	89.4	200	6.01	
EXT DRO >C28-C36	4990	50.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 366 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Mewbourne Oil Company				BILL TO				ANALYSIS REQUEST																	
Project Manager: Lance Crenshaw				P.O. #:																					
Address: 2617 W Marland Blvd				Company: Mewbourne																					
City: Hobbs		State: NM		Zip: 88240		Attn: Connor Walker																			
Phone #: 575-396-2378		Fax #: 575-396-1429		Address:																					
Project #: 18548		Project Owner: Mewbourne Oil Company		City:																					
Project Name: Charolais Frac North Fork				State:		Zip:																			
Project Location: UL/ J Sec 21 T19S - R35E				Phone #:																					
Sampler Name: Dominic Casarez				Fax #:																					
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING		DATE		TIME		Chloride		TPH		BTEX 8021	
		H234336				C				GROUNDWATER WASTEWATER SOIL SLUDGE OTHER:		ACID/BASE: ICE / COOL OTHER:				8-10				✓		✓		✓	
		DC 1 FL 12 @ 6 in																							
		2 FL 13 @ 6 in																							
		3 FL 14 @ 6 in																							
		4 FL 15 @ 6 in																							
		5 FL 16 @ 1																							
		6 FL 17 @ 1																							
		7 FL 18 @ 6 in																							
		8 FF 19 @ 6 in																							
		9 FL 20 @ 6 in																							
		10 FL 21 @ 1																							

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Relinquished By: Dom Casarez		Date: 8-10 Time: 15:35		Received By: Shan Cisneros		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Date:		Received By:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: -30°C #140		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) DC		REMARKS: Email results to PM@etechenv.com			

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
FORM-006 R 2.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
FORM-006 R 2.0

Shalyn Rodriguez

From: Lance Crenshaw <lance@etechenv.com>
Sent: Thursday, August 10, 2023 4:21 PM
To: Shalyn Rodriguez; PM
Subject: Re: MISSING SAMPLE

Yes please test for all three

Get [Outlook for iOS](#)

From: Shalyn Rodriguez <Shalyn.Rodriguez@cardinallabsnm.com>
Sent: Thursday, August 10, 2023 4:52:10 PM
To: PM <PM@etechenv.com>
Subject: MISSING SAMPLE

THE MISSING SAMPLE IS "SP 12 SUR"



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

August 17, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: CHAROLAIS FRAC NORTH FORK

Enclosed are the results of analyses for samples received by the laboratory on 08/11/23 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: NW 1 (H234359-01)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21		
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04		
Total BTEX	<0.275	0.275	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 95.0 % 44.9-134

Surrogate: 1-Chlorooctadecane 106 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: NW 2 (H234359-02)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21		
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18		
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263		
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04		
Total BTEx	<0.275	0.275	08/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 88.8 % 44.9-134

Surrogate: 1-Chlorooctadecane 100 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: NW 3 (H234359-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	08/15/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 94.7 % 44.9-134

Surrogate: 1-Chlorooctadecane 107 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: WW 1 (H234359-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 89.2 % 44.9-134

Surrogate: 1-Chlorooctadecane 99.7 % 41.4-161

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: WW 2 (H234359-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 93.6 % 44.9-134

Surrogate: 1-Chlorooctadecane 110 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: WW 3 (H234359-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 97.3 % 44.9-134

Surrogate: 1-Chlorooctadecane 111 % 41.4-161

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 25 @ 6IN. (H234359-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 97.8 % 44.9-134

Surrogate: 1-Chlorooctadecane 111 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 26 @ 6IN. (H234359-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 96.1 % 44.9-134

Surrogate: 1-Chlorooctadecane 108 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 27 @ 6IN. (H234359-09)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 90.2 % 44.9-134

Surrogate: 1-Chlorooctadecane 104 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBORNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 28 @ 6IN. (H234359-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/15/2023	ND	2.04	102	2.00	2.21	
Toluene*	<0.050	0.050	08/15/2023	ND	1.94	96.9	2.00	1.18	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.95	97.6	2.00	0.263	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.87	97.8	6.00	1.04	
Total BTEX	<0.275	0.275	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 95.5 % 44.9-134

Surrogate: 1-Chlorooctadecane 109 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SW 1 (H234359-11)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 88.9 % 44.9-134

Surrogate: 1-Chlorooctadecane 100 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SW 2 (H234359-12)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 96.0 % 44.9-134

Surrogate: 1-Chlorooctadecane 109 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SW 3 (H234359-13)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 95.2 % 44.9-134

Surrogate: 1-Chlorooctadecane 107 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: SW 4 (H234359-14)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38		
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65		
Total BTEX	<0.275	0.275	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 93.8 % 44.9-134

Surrogate: 1-Chlorooctadecane 106 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: SW 5 (H234359-15)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38		
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65		
Total BTEX	<0.275	0.275	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 91.4 % 44.9-134

Surrogate: 1-Chlorooctadecane 102 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: EW 1 (H234359-16)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 92.3 % 44.9-134

Surrogate: 1-Chlorooctadecane 105 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: EW 2 (H234359-17)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 93.2 % 44.9-134

Surrogate: 1-Chlorooctadecane 105 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: EW 3 (H234359-18)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	157	78.6	200	0.678	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	171	85.4	200	12.0	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	328	82.0	400	6.42	

Surrogate: 1-Chlorooctane 85.5 % 44.9-134

Surrogate: 1-Chlorooctadecane 96.4 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: EW 4 (H234359-19)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 86.9 % 44.9-134

Surrogate: 1-Chlorooctadecane 95.5 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: EW 5 (H234359-20)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 91.9 % 44.9-134

Surrogate: 1-Chlorooctadecane 104 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 29 @ 6IN (H234359-21)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 71.5-134

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	08/15/2023	ND	432	108	400	3.77	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 96.7 % 44.9-134

Surrogate: 1-Chlorooctadecane 106 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 30 @ 6IN (H234359-22)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 92.6 % 44.9-134

Surrogate: 1-Chlorooctadecane 102 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 31 @ 6IN (H234359-23)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/15/2023	ND	432	108	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 89.5 % 44.9-134

Surrogate: 1-Chlorooctadecane 98.1 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 32 @ 6IN (H234359-24)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/15/2023	ND	416	104	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 96.4 % 44.9-134

Surrogate: 1-Chlorooctadecane 107 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 33 @ 6IN (H234359-25)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 96.1 % 44.9-134

Surrogate: 1-Chlorooctadecane 103 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 34 @ 6IN (H234359-26)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/15/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 92.0 % 44.9-134

Surrogate: 1-Chlorooctadecane 98.1 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 22 @ 6IN (H234359-27)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 90.1 % 44.9-134

Surrogate: 1-Chlorooctadecane 96.8 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 23 @ 6IN (H234359-28)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 99.8 % 44.9-134

Surrogate: 1-Chlorooctadecane 106 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/11/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/11/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: FL 24 @ 6IN (H234359-29)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/16/2023	ND	2.14	107	2.00	2.38	
Toluene*	<0.050	0.050	08/16/2023	ND	2.07	103	2.00	2.90	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	2.58	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.93	98.9	6.00	2.65	
Total BTEX	<0.275	0.275	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/15/2023	ND	167	83.3	200	1.48	
DRO >C12-C28	<25.0	25.0	08/15/2023	ND	187	93.3	200	5.42	
DRO >C28-C35	<25.0	25.0	08/15/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/15/2023	ND	353	88.3	400	3.54	

Surrogate: 1-Chlorooctane 83.6 % 44.9-134

Surrogate: 1-Chlorooctadecane 89.6 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager

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

Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Mewbourne Oil Company				BILL TO				ANALYSIS REQUEST														
Project Manager: Lance Crenshaw				P.O. #:																		
Address: 2617 W Marland Blvd				Company: Mewbourne																		
City: Hobbs		State: NM		Zip: 88240		Attn: Connor Walker																
Phone #: 575-396-2378		Fax #: 575-396-1429		Address:																		
Project #: 18548		Project Owner: Mewbourne Oil Company		City:																		
Project Name: Charolais Frac North Fork				State: Zip:																		
Project Location: UL/ J Sec 21 T19S - R35E				Phone #:																		
Sampler Name: <u>Dominic Casarez</u>				Fax #:																		
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING														
Lab I.D.	Sample I.D.	GRAB OR (COMP. #)	CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL:	OTHER:	DATE	TIME	Chloride	TPH	BTEX 8021					
H234359	NW1	C1											8-11									
2	NW2																					
3	NW3																					
4	WW1																					
5	WW2																					
6	WW3																					
7	FL 25 @ 6 in																					
8	FL 26 @ 6 in																					
9	FL 27 @ 6 in																					
10	FL 28 @ 6 in																					

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Relinquished By: <u>[Signature]</u>	Date: <u>8-11</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date: <u>10-30</u>	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)	Time: <u>7:10</u>	Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	REMARKS: Email results to PM@etechnv.com	
Sampler - UPS - Bus - Other: <u>-7:10</u>	#140	Checked By: <u>[Signature]</u>		

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
FORM-006 R 2.0



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Mewbourne Oil Company				BILL TO				ANALYSIS REQUEST																
Project Manager: Lance Crenshaw				P.O. #:																				
Address: 2617 W Marland Blvd				Company: Mewbourne																				
City: Hobbs		State: NM		Zip: 88240		Attn: Connor Walker																		
Phone #: 575-396-2378		Fax #: 575-396-1429		Address:																				
Project #: 18548		Project Owner: Mewbourne Oil Company		City:																				
Project Name: Charolais Frac North Fork				State: Zip:																				
Project Location: UL/ J Sec 21 T19S - R35E				Phone #:																				
Sampler Name: DOMINIC CASAVEZ				Fax #:																				
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																
Lab I.D.	Sample I.D.	GRAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chloride	TPH	BTEX 8021							
H234359																								
DC 11	SW 1	C	1										8/1											
12	SW 2																							
13	SW 3																							
14	SW 4																							
15	SW 5																							
16	EW 1																							
17	EW 2																							
18	EW 3																							
19	EW 4																							
20	EW 5																							

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Relinquished By: Don Gr		Date: 8/11	Received By: Shawn Cisneros		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Time: 16:30	Received By:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: -7.1c #146		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		CHECKED BY: (Initials) AC		REMARKS: Email results to PM@etechnv.com		

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
FORM-006 R 2.0



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Mewbourne Oil Company				BILL TO				ANALYSIS REQUEST											
Project Manager: Lance Crenshaw				P.O. #:															
Address: 2617 W Marland Blvd				Company: Mewbourne															
City: Hobbs		State: NM		Zip: 88240		Attn: Connor Walker													
Phone #: 575-396-2378		Fax #: 575-396-1429		Address:		City:													
Project #: 18548		Project Owner: Mewbourne Oil Company		State:		Zip:													
Project Name: Charolais Frac North Fork				Phone #:															
Project Location: UL/ J Sec 21 T19S - R35E				Fax #:															
Sampler Name: <i>Dominic Casarez</i>																			
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(GRAB OR (C)OMP. # CONTAINERS		MATRIX		PRESERV.		SAMPLING		Chloride TPH BTEX 8021							
						GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		ACID/BASE: ICE/COOL OTHER:		DATE TIME									
14234359		FL 29 @ 6 in		C1				✓		8-11									
22		FL 30 @ 6 in																	
23		FL 31 @ 6 in																	
24		FL 32 @ 6 in																	
25		FL 33 @ 6 in																	
26		FL 34 @ 6 in																	
27		FL 22 @ 6 in																	
28		FL 23 @ 6 in																	
29		FL 24 @ 6 in																	

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Relinquished By: <i>[Signature]</i>		Date: 8-11		Received By: <i>[Signature]</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: 11:30						Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS: Email results to PM@etechenv.com			
Time:									
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <i>-7.1c</i>				Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>			

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
FORM-006 R 2.0



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

August 17, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: CHAROLAIS FRAC NORTH FORK

Enclosed are the results of analyses for samples received by the laboratory on 08/14/23 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/14/2023	Sampling Date:	08/14/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 35 @ 6 IN (H234372-01)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

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	08/15/2023	ND	416	104	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	08/15/2023	ND	161	80.5	200	4.69	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	156	78.2	200	10.8	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 36 @ 6 IN (H234372-02)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

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	08/15/2023	ND	416	104	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	08/15/2023	ND	161	80.5	200	4.69	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	156	78.2	200	10.8	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 37 @ 6 IN (H234372-03)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

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	08/15/2023	ND	416	104	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	08/15/2023	ND	161	80.5	200	4.69	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	156	78.2	200	10.8	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.1 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 38 @ 6 IN (H234372-04)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	08/15/2023	ND	432	108	400	3.77	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*	<10.0	10.0	08/15/2023	ND	161	80.5	200	4.69	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	156	78.2	200	10.8	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 39 @ 6 IN (H234372-05)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	08/15/2023	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	08/16/2023	ND	182	91.2	200	4.80	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	184	92.2	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 86.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.5 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 40 @ 6 IN (H234372-06)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	08/15/2023	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	08/16/2023	ND	182	91.2	200	4.80	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	184	92.2	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.7 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 41 @ 6 IN (H234372-07)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/15/2023	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	08/16/2023	ND	182	91.2	200	4.80	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	184	92.2	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 88.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.2 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 42 @ 6 IN (H234372-08)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	08/15/2023	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	08/16/2023	ND	182	91.2	200	4.80	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	184	92.2	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 76.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.2 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 43 @ 6 IN (H234372-09)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/15/2023	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	08/16/2023	ND	182	91.2	200	4.80	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	184	92.2	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.5 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 44 @ 6 IN (H234372-10)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

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	08/15/2023	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	08/16/2023	ND	182	91.2	200	4.80	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	184	92.2	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 80.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.9 % 49.1-148

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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 45 @ 6 IN (H234372-11)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 46 @ 6 IN (H234372-12)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 47 @ 6 IN (H234372-13)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

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	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 99.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 48 @ 6 IN (H234372-14)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

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	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 49 @ 6 IN (H234372-15)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 50 @ 6 IN (H234372-16)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	1.98	98.9	2.00	0.423		
Toluene*	<0.050	0.050	08/16/2023	ND	1.83	91.7	2.00	1.17		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.78	89.1	2.00	1.48		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.15	85.9	6.00	2.82		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 132 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 51 @ 6 IN (H234372-17)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 71.5-134

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	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW 7 (H234372-18)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

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	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW 6 (H234372-19)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 49.1-148

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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: NW 4 (H234372-20)

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	08/16/2023	ND	2.01	100	2.00	2.42	
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06	
Total BTEX	<0.300	0.300	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 71.5-134

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	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 52 @ 6 IN (H234372-21)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 53 @ 6 IN (H234372-22)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

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	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 54 @ 6 IN (H234372-23)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	08/15/2023	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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 55 @ 6 IN (H234372-24)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 145 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 56 @ 6 IN (H234372-25)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00	

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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 130 % 48.2-134

Surrogate: 1-Chlorooctadecane 147 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 57 @ 6 IN (H234372-26)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 58 @ 6 IN (H234372-27)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 59 @ 6 IN (H234372-28)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00	

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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 60 @ 6 IN (H234372-29)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/15/2023	ND	416	104	400	0.00	

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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 61 @ 6 IN (H234372-30)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	203	102	200	2.91	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	207	103	200	4.13	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 62 @ 6 IN (H234372-31)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 86.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.9 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 63 @ 6 IN (H234372-32)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FL 64 @ 6 IN (H234372-33)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: NW 6 (H234372-34)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEX	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EW 9 (H234372-35)

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	08/16/2023	ND	2.01	100	2.00	2.42		
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/15/2023	ND	416	104	400	0.00	

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	08/15/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: NW 5 (H234372-36)

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	08/16/2023	ND	2.01	100	2.00	2.42	
Toluene*	<0.050	0.050	08/16/2023	ND	1.92	95.8	2.00	2.28	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.95	97.4	2.00	3.08	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.80	96.6	6.00	4.06	
Total BTEX	<0.300	0.300	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

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	08/15/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EW 8 (H234372-37)

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	08/16/2023	ND	1.97	98.7	2.00	3.64		
Toluene*	<0.050	0.050	08/16/2023	ND	1.91	95.3	2.00	2.91		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.90	95.0	2.00	4.94		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.71	95.2	6.00	4.20		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/15/2023	ND	416	104	400	0.00		

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	08/16/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EW 7 (H234372-38)

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	08/16/2023	ND	1.97	98.7	2.00	3.64		
Toluene*	<0.050	0.050	08/16/2023	ND	1.91	95.3	2.00	2.91		
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.90	95.0	2.00	4.94		
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.71	95.2	6.00	4.20		
Total BTEx	<0.300	0.300	08/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

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	08/15/2023	ND	416	104	400	0.00		

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	08/16/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 08/14/2023
 Reported: 08/17/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 08/14/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EW 6 (H234372-39)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/16/2023	ND	1.97	98.7	2.00	3.64	
Toluene*	<0.050	0.050	08/16/2023	ND	1.91	95.3	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/16/2023	ND	1.90	95.0	2.00	4.94	
Total Xylenes*	<0.150	0.150	08/16/2023	ND	5.71	95.2	6.00	4.20	
Total BTX	<0.300	0.300	08/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/15/2023	ND	416	104	400	0.00		

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	08/16/2023	ND	184	91.8	200	5.20	
DRO >C10-C28*	<10.0	10.0	08/16/2023	ND	188	94.0	200	5.75	
EXT DRO >C28-C36	<10.0	10.0	08/16/2023	ND					

Surrogate: 1-Chlorooctane 93.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
A-01	Ending CCV failed high for DRO. All samples ND.
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

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

**ARDINAL 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				ANALYSIS REQUEST																																			
Project Manager:				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div> </div>																																			
Address: 2617 West Marland				Company: <u>Melbourn</u>																																							
City: Hobbs State: NM Zip: 88240				Attn: <u>Jeff Broom</u>																																							
Phone #: (575) 264-9884 Fax #:				Address:																																							
Project #: <u>18548</u> Project Owner: <u>Melbourn</u>				City:																																							
Project Name: <u>Charolais Frac North Fork</u>				State: Zip:																																							
Project Location: <u>Rural Hobbs</u>				Phone #:																																							
Sampler Name: <u>Dominic Casarez</u>				Fax #:																																							
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																																	
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME															
<u>H234372</u>																																											
<u>DC 1</u>		<u>FL 35 @ 6 in</u>		<u>C</u>		<u>1</u>																																					
<u>2</u>		<u>FL 36 @ 6 in</u>																																									
<u>3</u>		<u>FL 37 @ 6 in</u>																																									
<u>4</u>		<u>FL 38 @ 6 in</u>																																									
<u>5</u>		<u>FL 39 @ 6 in</u>																																									
<u>6</u>		<u>FL 40 @ 6 in</u>																																									
<u>7</u>		<u>FL 41 @ 6 in</u>																																									
<u>8</u>		<u>FL 42 @ 6 in</u>																																									
<u>9</u>		<u>FL 43 @ 6 in</u>																																									
<u>10</u>		<u>FL 44 @ 6 in</u>																																									

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Relinquished By: <u>[Signature]</u>		Date: <u>8-14</u>		Received By: <u>[Signature]</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: <u>1640</u>		Date: <u>8-14</u>		Received By: <u>[Signature]</u>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:			
Time:									

Delivered By: (Circle One)

Sampler - UPS - Bus - Other: 1.4c

#140

Sample Condition

Cool ☒ Intact ☒

☒ Yes ☐ No ☐ Yes ☐ No

CHECKED BY: (Initials)

TO

Please email copy of COC and results to pm@etechenv.com.

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Mewbourne Oil Company				BILL TO				ANALYSIS REQUEST																
Project Manager: Lance Crenshaw				P.O. #:																				
Address: 2617 W Marland Blvd				Company: Mewbourne																				
City: Hobbs		State: NM		Zip: 88240		Attn: Connor Walker																		
Phone #: 575-396-2378		Fax #: 575-396-1429		Address:		City:																		
Project #: 18548		Project Owner: Mewbourne Oil Company		State:		Zip:																		
Project Name: Charolais Frac North Fork				Phone #:																				
Project Location: UL/J Sec 21 T19S - R35E				Fax #:																				
Sampler Name: Dominic Insurek																								
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																
Lab I.D.	Sample I.D.	(GRAB OR C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chloride	PH	BTEX 8021							
#234372																								
DL 21	FL 52 @ 6 in		1										8/14											
22	FL 53 @ 6 in																							
23	FL 54 @ 6 in																							
24	FL 55 @ 6 in																							
25	FL 56 @ 6 in																							
26	FL 57 @ 6 in																							
27	FL 58 @ 6 in																							
28	FL 59 @ 6 in																							
29	FL 60 @ 6 in																							
30	FL 61 @ 6 in																							

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Relinquished By:	Date: 8-14	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 1640		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: Email results to PM@etechnv.com	
	Time:			
Delivered By: (Circle One)	#140	Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	1.4c	Cool Intact		
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

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FORM-006 R 2.0

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FORM-006 R 2.0



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

August 24, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: CHAROLAIS FRAC NORTH FORK

Enclosed are the results of analyses for samples received by the laboratory on 08/17/23 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/17/2023	Sampling Date:	08/17/2023
Reported:	08/24/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 9 @ 1 (H234483-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	08/23/2023	ND	1.99	99.7	2.00	7.96	
Toluene*	<0.050	0.050	08/23/2023	ND	1.97	98.5	2.00	8.94	
Ethylbenzene*	<0.050	0.050	08/23/2023	ND	2.03	101	2.00	6.43	
Total Xylenes*	<0.150	0.150	08/23/2023	ND	6.12	102	6.00	7.41	
Total BTEX	<0.275	0.275	08/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

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	08/22/2023	ND	416	104	400	3.92	

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	08/22/2023	ND	190	95.0	200	3.72	
DRO >C12-C28	<25.0	25.0	08/22/2023	ND	209	104	200	3.86	
DRO >C28-C35	<25.0	25.0	08/22/2023	ND					
Total TPH C6-C35*	<25.0	25.0	08/22/2023	ND	399	99.8	400	3.82	

Surrogate: 1-Chlorooctane 76.1 % 44.9-134

Surrogate: 1-Chlorooctadecane 80.5 % 41.4-161

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene", written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

**ARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

[illegible]

FORM-006
Revision 1.0

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

August 28, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: CHAROLAIS FRAC NORTH FORK

Enclosed are the results of analyses for samples received by the laboratory on 08/22/23 16:28.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	08/22/2023	Sampling Date:	08/22/2023
Reported:	08/28/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: FL 38 @ 1 (H234575-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/24/2023	ND	416	104	400	3.77	

Sample ID: FL 39 @ 1 (H234575-02)

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	08/24/2023	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

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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

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

FORM-006
Revision 1.0

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



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

October 11, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: CHAROLAIS FRAC NORTH FORK

Enclosed are the results of analyses for samples received by the laboratory on 10/06/23 12:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	10/06/2023	Sampling Date:	10/05/2023
Reported:	10/11/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: NH @ SURFACE (H235466-01)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	10/09/2023	ND	2.04	102	2.00	5.14		
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50		
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31		
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62		
Total BTEX	<0.275	0.275	10/09/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	10/10/2023	ND	448	112	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	10/09/2023	ND	187	93.6	200	4.94	
DRO >C12-C28	<25.0	25.0	10/09/2023	ND	220	110	200	5.42	
DRO >C28-C35	<25.0	25.0	10/09/2023	ND					
Total TPH C6-C35*	<25.0	25.0	10/09/2023	ND	407	102	400	5.20	

Surrogate: 1-Chlorooctane 84.3 % 44.9-134

Surrogate: 1-Chlorooctadecane 80.8 % 41.4-161

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 10/06/2023
 Reported: 10/11/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 10/05/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: NH @ 1' (H235466-02)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	10/09/2023	ND	2.04	102	2.00	5.14	
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62	
Total BTEX	<0.275	0.275	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

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	10/10/2023	ND	448	112	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	10/09/2023	ND	187	93.6	200	4.94	
DRO >C12-C28	<25.0	25.0	10/09/2023	ND	220	110	200	5.42	
DRO >C28-C35	<25.0	25.0	10/09/2023	ND					
Total TPH C6-C35*	<25.0	25.0	10/09/2023	ND	407	102	400	5.20	

Surrogate: 1-Chlorooctane 77.7 % 44.9-134

Surrogate: 1-Chlorooctadecane 74.5 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 10/06/2023
 Reported: 10/11/2023
 Project Name: CHAROLAIS FRAC NORTH FORK
 Project Number: 18548
 Project Location: MEWBOURNE UL/ J SEC 21 T19S - R35E

Sampling Date: 10/05/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shari Cisneros

Sample ID: WH @ SURFACE (H235466-03)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	10/09/2023	ND	2.04	102	2.00	5.14		
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50		
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31		
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62		
Total BTEx	<0.275	0.275	10/09/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	10/10/2023	ND	448	112	400	0.00		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	10/09/2023	ND	187	93.6	200	4.94	
DRO >C12-C28	<25.0	25.0	10/09/2023	ND	220	110	200	5.42	
DRO >C28-C35	<25.0	25.0	10/09/2023	ND					
Total TPH C6-C35*	<25.0	25.0	10/09/2023	ND	407	102	400	5.20	

Surrogate: 1-Chlorooctane 77.3 % 44.9-134

Surrogate: 1-Chlorooctadecane 74.3 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received:	10/06/2023	Sampling Date:	10/05/2023
Reported:	10/11/2023	Sampling Type:	Soil
Project Name:	CHAROLAIS FRAC NORTH FORK	Sampling Condition:	Cool & Intact
Project Number:	18548	Sample Received By:	Shari Cisneros
Project Location:	MEWBOURNE UL/ J SEC 21 T19S - R35E		

Sample ID: WH @ 1' (H235466-04)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	10/09/2023	ND	2.04	102	2.00	5.14		
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50		
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31		
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62		
Total BTEX	<0.275	0.275	10/09/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

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	10/10/2023	ND	416	104	400	3.77		

TPH TX1005		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C12	<25.0	25.0	10/09/2023	ND	187	93.6	200	4.94	
DRO >C12-C28	<25.0	25.0	10/09/2023	ND	220	110	200	5.42	
DRO >C28-C35	<25.0	25.0	10/09/2023	ND					
Total TPH C6-C35*	<25.0	25.0	10/09/2023	ND	407	102	400	5.20	

Surrogate: 1-Chlorooctane 81.6 % 44.9-134

Surrogate: 1-Chlorooctadecane 78.5 % 41.4-161

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Celey D. Keene, Lab Director/Quality Manager



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

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

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

Celey D. Keene, Lab Director/Quality Manager

[illegible]

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Relinquished By: Tamarah Kendrick		Date: 10/6/2023	Received By: <i>Shari Cisneros</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
		Time: 12:40		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS: Email results to PM@etechenv.com	
		Time:			
Delivered By: (Circle One)		Sample Condition		CHECKED BY:	
Sampler - UPS - Bus - Other:		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		(Initials)	
-3.8c		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		DC	

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
FORM-006 R 2.0

Appendix E

Regulatory Correspondence

From: [Lance Crenshaw](#)
To: [Enviro, OCD, EMNRD](#)
Cc: [Ben Arguijo](#); [Connor Walker](#); jbroom@mewbourne.com
Subject: FW: [EXT] Confirmation Sampling Notice
Date: Thursday, August 10, 2023 3:31:06 PM

Please disregard my previous email, we had the wrong incident number and project name. Here is the correct one.

This email serves as notice that Etech intends to collect excavation confirmation soil samples on August 15, 2023, from the following locations/reportable release sites:

Mewbourne Oil Co – nAPP2319833354 - TORO 21 #002

If you have any questions or need any additional information, please contact Lance Crenshaw by phone (575-631-2532) or email lance@etechenv.com

Lance Crenshaw
Etech Environmental & Safety Solutions
575-631-2532

Connor Walker

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Friday, September 29, 2023 8:55 AM
To: Lance Crenshaw
Cc: marka@northforkland.com; Connor Walker; Jeff Broom; Ben Arguijo; Bratcher, Michael, EMNRD
Subject: [EXT] Re: [EXTERNAL] Extension request

Some people who received this message don't often get email from nelson.velez@emnrd.nm.gov. [Learn why this is important](#)

Good morning Lance,

Your 45-day time extension request is approved. Remediation Due date has been updated to November 15, 2023 within the incident page.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>



From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Friday, September 29, 2023 8:35 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Extension request

Scott Rodgers • Environmental Specialist

Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



From: Lance Crenshaw <lance@etechenv.com>
Sent: Friday, September 29, 2023 7:20 AM
To: dave.bolton@northforkland.com; marka@northforkland.com; Connor Walker <cwalker@mewbourne.com>; jbroom@mewbourne.com; Ben Arguijo <bena@etechenv.com>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Extension request

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

I apologize, there were some cut and paste edits in the last email. This is the correct email for the extension

Dear NMOCD Environmental Bureau,

Mewbourne Oil Company (Mewbourne) has contracted Etech Environmental & Safety Solutions, Inc. (Etech), to conduct remediation activities for the release known as the North Fork Toro - Charolais Frac (NMOCD Incident # nAPP2319833354). The site is located in Lea County. Pursuant to NMOCD regulations, a work plan or closure report is due for the release on **September 30, 2023**. Etech has started excavation activities at the site but needs more time to complete the remediation. We are also working another release for Mewbourne, the Delaware Ranch, which most of our crews are dedicated to. We just want to make sure we get everything done in a timely manner and are able to meet deadlines, with multiple crews working.

In consideration of this, Etech, on behalf of Mewbourne, requests a **45 day extension** until Wednesday, **November 15, 2023**, to allow us to fully excavate the site, gather excavation confirmation samples, backfill the site and prepare a site closure request.

If you have any questions or need any additional information, please do not hesitate to contact me by phone or email.

Thank you for your time and consideration.

Lance Crenshaw
Etech Environmental & Safety Solutions
575-631-2532

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 279468

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 279468
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Deferral is approved. Remediation Due date will be left open until the site has been plugged and abandoned or a major facility deconstruction takes place.	2/6/2024