State of New Mexico
Oil Conservation Division

Incident ID	nAPP2124632147
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☑ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☑ Extents of contamination must be fully delineated.

☑ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Connor Walker Title: Sr. Engineer

Signature: _____ Date: _____

email: cwalker@mewbourne.com Telephone: (806)202-5281

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Remediation Summary

Mewbourne Oil Company
Red Hills Recycle Pond Facility
Lea County, New Mexico
Unit Letter "J", Section 16, Township 26 South, Range 32 East
Latitude 32.0397980 North, Longitude 103.675828 West
NMOCD Reference No. nAPP2124632147

Prepared By:

Etech Environmental & Safety Solutions, Inc.
2507 79th Street, Unit A
Lubbock, Texas 79423

Ben J. Arguijo

Lance Crenshaw

Midland • San Antonio • Lubbock • Hobbs • Lafayette

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this *Remediation Summary* for the release site known as the Red Hills Recycle Pond Facility (henceforth, "Red Hills Recycle"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.0397980 Longitude: -103.675828

Provided GPS are in WGS84 format.

Site Name:	Red Hills Recycle Pond Facility	Site Type:	Water Treatment Facility
Date Release Discovered:	8/30/2021	API # (if applicable):	N/A

Unit Letter	Section	Township	Range	County
"J"	16	26S	32E	Lea

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

Nature and Volume of Release

[ ] Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
[X] Produced Water	Volume Released (bbls) Unknown	Volume Recovered (bbls) 1,420
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	[X] Yes [ ] No [ ] N/A
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:
The tanks overflowed, overran the secondary containment, and released produced water both on and off the location.

Initial Response

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

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

2.0 SITE CHARACTERIZATION

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

What is the shallowest depth to groundwater beneath the area affected by the release?	215'	
Did the release impact groundwater or surface water?	[ ] Yes	[X] No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	[ ] Yes	[X] No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark?	[ ] Yes	[X] No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	[ ] Yes	[X] No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	[ ] Yes	[X] No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	[ ] Yes	[X] No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	[ ] Yes	[X] No
Are the lateral extents of the release within 300 feet of a wetland?	[ ] Yes	[X] No
Are the lateral extents of the release overlying a subsurface mine?	[ ] Yes	[X] No
Are the lateral extents of the release overlying an unstable area such as karst geology?	[X] Yes	[ ] No
Are the lateral extents of the release within a 100-year floodplain?	[ ] Yes	[X] No
Did the release impact areas not on an exploration, development, production or storage site?	[X] Yes	[ ] 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, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the Red Hills Recycle release site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
215'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	600	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	100	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	N/A	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 INITIAL SITE ASSESSMENT

On September 17 and 18, 2021, an initial site assessment was conducted by a third-party environmental contractor that is no longer affiliated with the site. During the initial site assessment, a series of eight (8) soil bores and/or test trenches (SP1 through SP8) were advanced within the release margins in an effort to determine the vertical extent of impacted soil. In addition, five (5) soil bores and/or test trenches (H1 through H5) were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of impacted soil. During the advancement of the soil bores/test trenches, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit.

Based on field test data, the vertical extent of chloride contamination was adequately defined and ranged from approximately two (2) feet below ground surface (bgs) in the area characterized by sample point SP1 to eight (8) feet bgs in the area characterized by sample point SP3. However, additional delineation was required to determine the horizontal extent of chloride contamination, as well as the horizontal and vertical extent of BTEX and TPH contamination.

Field data is provided in Appendix B. General photographs of the site are provided in Appendix C.

5.0 REMEDIATION ACTIVITIES SUMMARY

On November 9, 2021, Mewbourne contracted Etech to assume remediation activities for the release.

On February 8, 2022, Etech commenced remediation activities at the release site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated to the extent practicable 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 vertical and horizontal extent of impacted soil and to guide the excavation. The sidewalls of the excavation were advanced to the extent practicable or until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards. The excavation was advanced vertically to approximately four (4) feet bgs.

On February 9, 2022, Etech collected five (5) confirmation soil samples (NW1, NW2, NW3, NW4, and EW1) from the sidewalls of the excavated area. The soil samples were submitted to a certified, commercial laboratory (henceforth, "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 Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory method detection limit (MDL). Chloride concentrations ranged from 112 mg/kg in soil sample EW1 to 288 mg/kg in soil sample NW1.

In addition, Etech advanced three (3) test trenches (FS1, FS2, and FS4) in the floor of the excavated area to further investigate the vertical extent of impacted soil. During the advancement of the test trenches, 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, three (3) delineation soil samples (FS1 @ 12', FS2 @ 13', and FS4 @ 4') 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 Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 48.0 mg/kg in soil sample FS2 @ 13' to 336 mg/kg in soil sample FS1 @ 12'. Based on these laboratory analytical results, the vertical extent of impacted soil was adequately defined in the areas characterized by test trenches FS1, FS2, and FS4.

On February 10, 2022, Etech collected two (2) confirmation soil samples (SW1 and SW2) from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX concentrations were also below the laboratory MDL. TPH concentrations

ranged from less than the laboratory MDL in soil sample SW2 to 264 mg/kg in soil sample SW1. Chloride concentrations were 80.0 mg/kg in soil sample SW1 and 32.0 mg/kg in soil sample SW2.

On February 17, 2022, Etech collected 20 confirmation soil samples (NW5, NW6, NW7, NW8, NW9, NW10, NW11, NW12, NW13, SW3, SW4, SW5, SW6, SW7, SW8, SW9, SW10, SW11, SW12, and SW13) from the sidewalls of the excavated area. The soil samples 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 Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 16.0 mg/kg in soil sample SW6 to 272 mg/kg in soil sample SW11.

On February 24, 2022, Etech advanced six (6) test trenches (SP1 through SP6) within the release margins in an effort to further investigate the vertical extent of impacted soil. During the advancement of the test trenches, 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, a total of 10 delineation soil samples (SP1 @ Surf., SP1 @ 2', SP2 @ Surf., SP2 @ 20', SP3 @ Surf., SP3 @ 14', SP4 @ Surf., SP4 @ 14', SP6 @ Surf., and SP6 @ 2') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX concentrations were also below the laboratory MDL. Chloride concentrations ranged from 32.0 mg/kg in soil sample SP3 @ 14' to 2,000 mg/kg in soil sample SP1 @ Surf. Based on these laboratory analytical results, the vertical extent of impacted soil was adequately defined in the areas characterized by test trenches SP1, SP3, SP4, SP5, and SP6. However, additional vertical delineation was required in the area characterized by test trench SP2.

On February 25, 2022, Etech advanced 10 hand-augered soil bores (NH1, NH2, NH3, EH1, EH2, SH1, SH2, SH3, WH1, and WH2) at the inferred edges of the affected area in an effort to further investigate the horizontal 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 chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses. Based on field observations and field test data, a total of 20 delineation soil samples (NH1 @ Surf., NH1 @ 1', NH2 @ Surf., NH2 @ 1', NH3 @ Surf., NH3 @ 1', EH1 @ Surf., EH1 @ 1', EH2 @ Surf., EH2 @ 1', SH1 @ Surf., SH1 @ 1', SH2 @ Surf., SH2 @ 1', SH3 @ Surf., SH3 @ 1', WH1 @ Surf., WH1 @ 1', WH2 @ Surf., and WH2 @ 1') 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 Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL, with the exception of soil sample NH1 @ 1', which exhibited a TPH concentration of 13.7 mg/kg. Chloride concentrations ranged from 32.0 mg/kg in soil samples NH1 @ Surf., EH1 @ 1', and SH3 @ 1' to 336 mg/kg in soil sample SH1 @ Surf. Based on these laboratory analytical results, the horizontal extent of impacted soil was adequately defined.

On March 1, 2022, Etech further advanced test trench SP2 in an effort to determine the vertical extent of chloride contamination in the area. During the advancement of the test trench, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit. Based on field observations and field test data, one (1) delineation soil sample (SP2 @ 21') was submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated the chloride concentration was 96.0 mg/kg and below the NMOCD Closure Criteria and NMOCD Reclamation Standard. Based on these laboratory analytical results, the vertical extent of chloride contamination was adequately defined.

On March 9, 2022, the excavation was further advanced in the area characterized by soil sample SW1. Etech collected eight (8) confirmation soil samples (NW14, NW15, NW16, NW17, NW18, SW1-A, SW14, and SW15) from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 16.0 mg/kg in soil sample NW14 to 256 mg/kg in soil sample SW14.

On March 10, 2022, Etech collected one (1) confirmation soil sample (SW16) from the sidewall of the excavated area. The soil sample was 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 Standard. BTEX and TPH concentrations were also below the applicable laboratory MDL. The chloride concentration was 64.0 mg/kg.

On March 15, 2022, Etech collected eight (8) confirmation soil samples (EW2, EW3, EW4, EW5, SW17, WW6, WW7, and WW8) from the sidewalls of the excavated area. The soil samples 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 Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 48.0 mg/kg in soil samples EW2, EW3, and EW5 to 160 mg/kg in soil sample SW17.

On March 16, 2022, Etech collected two (2) confirmation soil samples (EW6 and SW18) from the sidewalls of the excavated area. The soil samples 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 Standard in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations were 64.0 mg/kg in soil sample EW6 and 544 mg/kg in soil sample SW18.

From March 18 through 21, 2022, Etech advanced a series of nine (9) hand-augered soil bores and/or test trenches (DSP1 through DSP9) to further characterize the affected area adjacent to and/or beneath the on-site storage tanks and associated containment area, piping, appurtenances, and electrical facilities requiring deferral of remediation. During the advancement of the soil bores/test trenches, 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, a total of 18 deferral characterization soil samples (DSP1 @ Surf., DSP1 @ 1', DSP2 @ Surf., DSP2 @ 1', DSP3 @ Surf., DSP3 @ 8', DSP4 @ Surf., DSP4 @ 4', DSP5 @ Surf., DSP5 @ 8', DSP6 @ Surf., DSP6 @ 10', DSP7 @ Surf., DSP7 @ 14', DSP8 @ Surf., DSP8 @ 8', DSP9 @ Surf., and DSP9 @ 8') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical data, the extent of impacted soil was adequately defined and ranged from approximately one (1) foot bgs in the areas characterized by sample points DSP1 and DSP2 to 14 feet bgs in the area characterized by sample point DSP7.

On April 19, 2022, based on laboratory analytical results from delineation, confirmation, and deferral characterization soil samples, as well as in-situ chloride migration modeling, a *Remediation Summary, Variance & Deferral Request* was submitted to the NMOCD requesting a variance to install a 20-mil, string-reinforced liner on the floor of the excavated area atop impacted soil affected above the NMOCD Closure Criteria in the areas characterized by sample points FS1, FS2, and SP1 through SP5. Permission to defer remediation of TPH- and/or chloride-impacted soil affected above the NMOCD Closure Criteria remaining in-situ adjacent to and/or beneath the on-site storage tanks and associated containment area, pipes, appurtenances, and electrical facilities was also requested. The variance and deferral requests were subsequently approved by the NMOCD. Please reference the *Remediation Summary, Variance & Deferral Request* for additional details regarding the variance and deferral requests and the in-situ chloride migration modeling.

On June 21, 2022, upon receiving NMOCD approval of the *Remediation Summary, Variance & Deferral Request*, a 20-mil polyurethane liner was installed on the floor of the excavation atop impacted soil affected above the NMOCD Closure Criteria in the areas by sample points FS1, FS2, and SP1 through SP5. The liner was sloped to facilitate shedding of moisture outside the footprint of the excavation and the maximum horizontal extent of in-situ impacted soil. During the installation of the liner, an approximate 6-inch layer of pad material was installed both above and below the liner in an effort to maintain its integrity during backfilling activities. This engineered control is designed to inhibit the vertical migration of chloride contamination remaining in-situ.

The dimensions of the excavated area were approximately 282 to 748 feet in length, 18 to 111 feet in width, and four (4) feet in depth. During the course of remediation activities, Etech transported approximately 9,720 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 9,660 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

The extent of the affected area and the locations of the hand-augered soil bores and test trenches are depicted in Figure 3A, "Site & Sample Location Map (Delineation)". The extents of the excavated area and liner, the deferred area, and the locations of the confirmation and deferral characterization samples are depicted in Figure 3B, "Site & Sample Location Map (Excavation)". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. General photographs of the site are provided in Appendix C. Laboratory analytical reports are provided in Appendix F.

6.0 DEFERRAL

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated to the extent practicable and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX are below the applicable NMOCD Closure Criterion and NMOCD Reclamation Standard. Pursuant to the NMOCD-approved *Remediation Summary, Variance & Deferral Request*, remediation of TPH- and/or chloride-impacted soil affected above the NMOCD Closure Criteria remaining in-situ adjacent to and/or beneath the on-site storage tanks and associated containment area, pipes, appurtenances, and electrical facilities will be completed upon decommissioning and abandonment of the water treatment facility.

7.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

Upon receiving NMOCD approval of the *Remediation Summary, Variance & Deferral Request*, excavated areas were backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions. The affected areas were compacted and contoured to achieve erosion control, stability, and preservation of surface water flow, to the extent practicable. Affected areas not on production pads, pipeline right-of-ways, and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture during the first favorable growing season following closure of the site. Final remediation, reclamation, and re-vegetation of the active location will be conducted upon decommissioning and abandonment of the water treatment facility.

8.0 LIMITATIONS

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

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

9.0 DISTRIBUTION

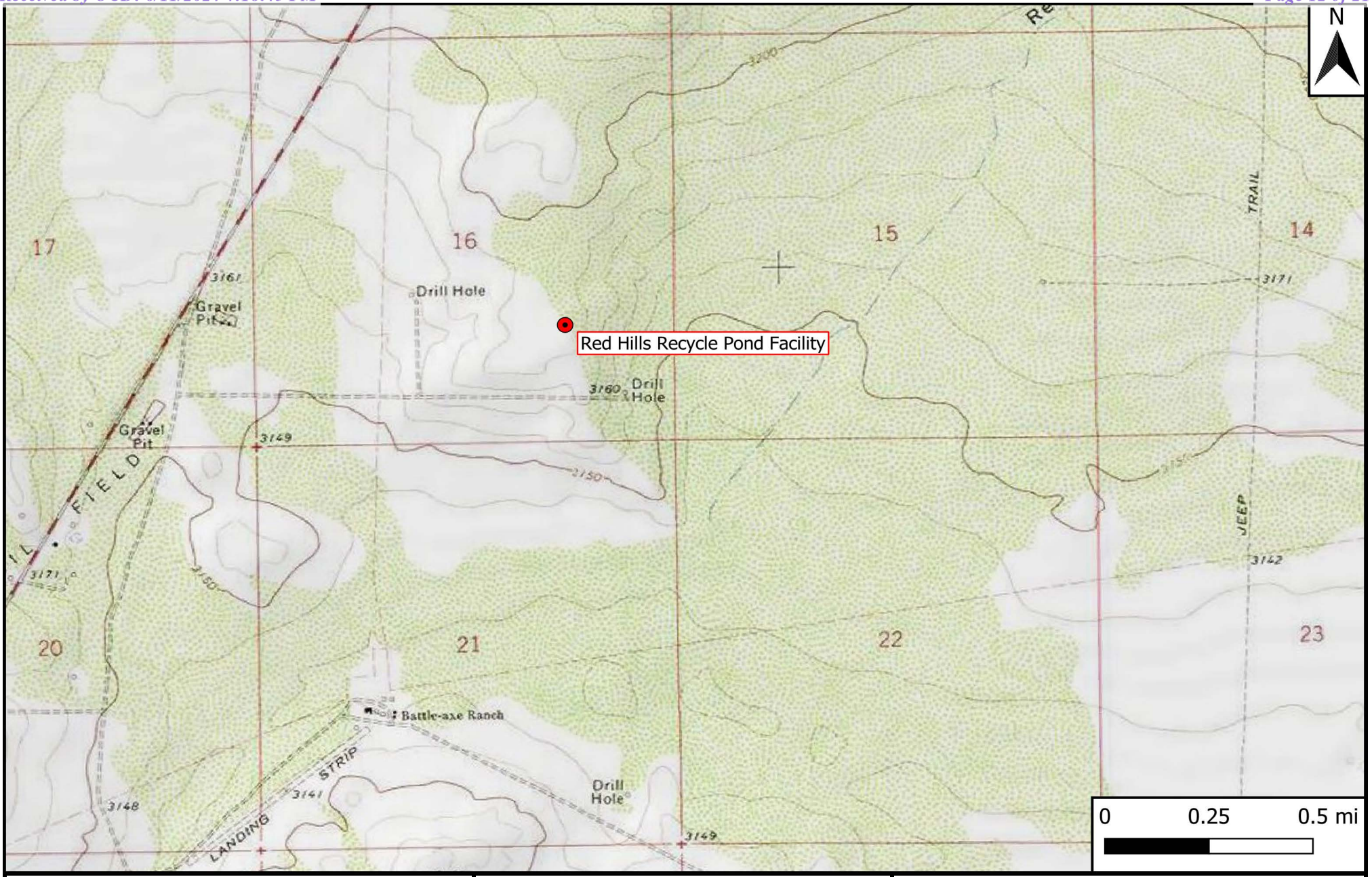
Mewbourne Oil Company
4801 Business Park Blvd.
Hobbs, NM 88240

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1220 South St. Francis Drive
Santa Fe, NM 87505

Hobbs Field Office
New Mexico State Land Office
2827 North Dal Paso Street
Suite 117
Hobbs, NM 88240

(Electronic Submission)

Figure 1
Topographic Map



Legend

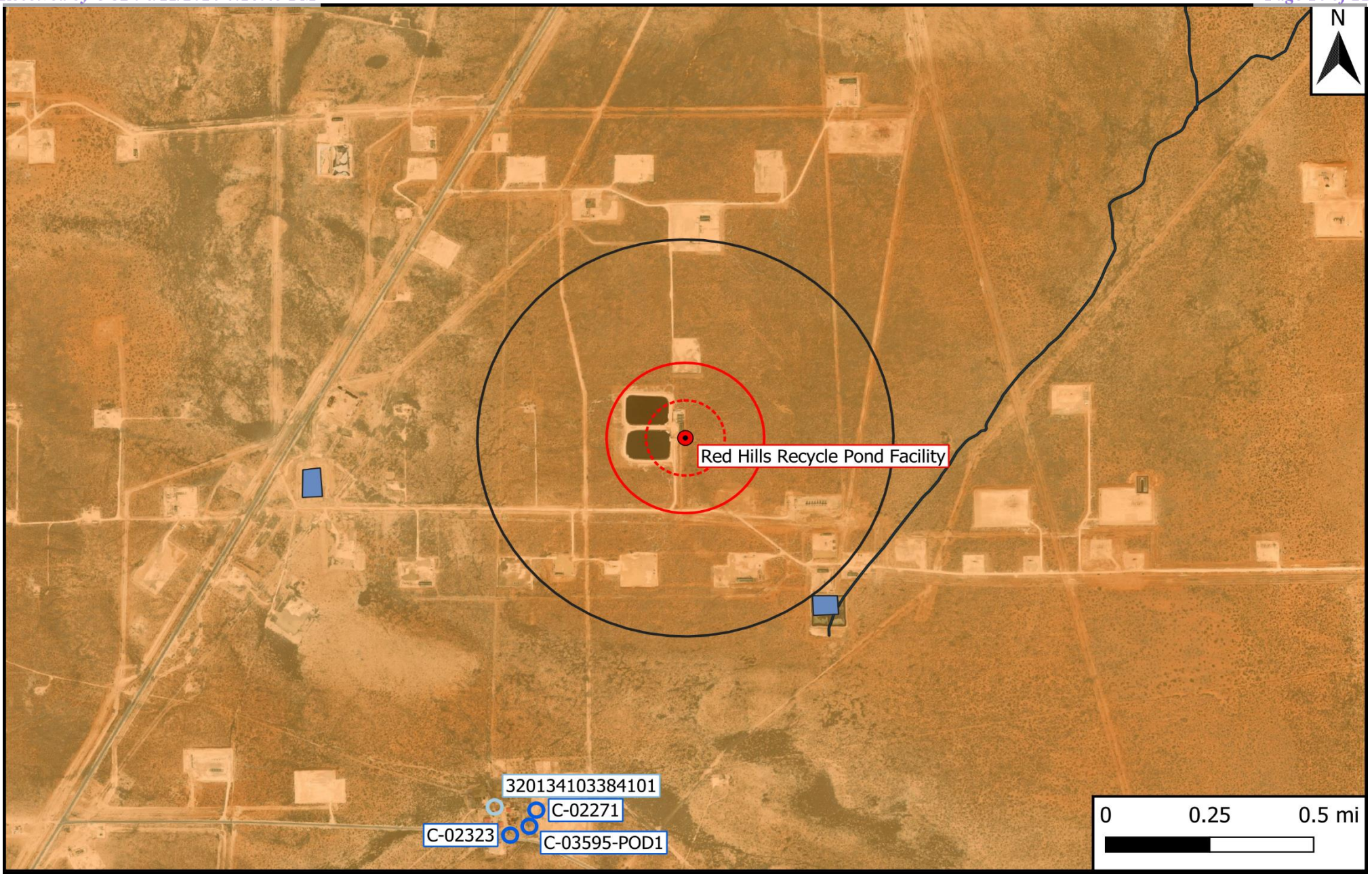
- Site Location

Figure 1
Topographic Map
Mewbourne Oil Company
Red Hills Recycle Pond Facility
GPS: 32.039798, -103.675828
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 12/20/21

Figure 2
Aerial Proximity Map



Legend

- Site Location
- Well - NMOSE
- Well - USGS
- Well - Other
- Potash Mine Workings
- 1% Annual Flood Chance
- Emergent/Forested Wetlands
- Freshwater Pond/Lake
- Medium/High Karst
- Riverine
- 500-Ft Radius
- 1,000-Ft Radius
- 0.5-Mi Radius

Figure 2

Aerial Proximity Map

Mewbourne Oil Company

Red Hills Recycle Pond Facility

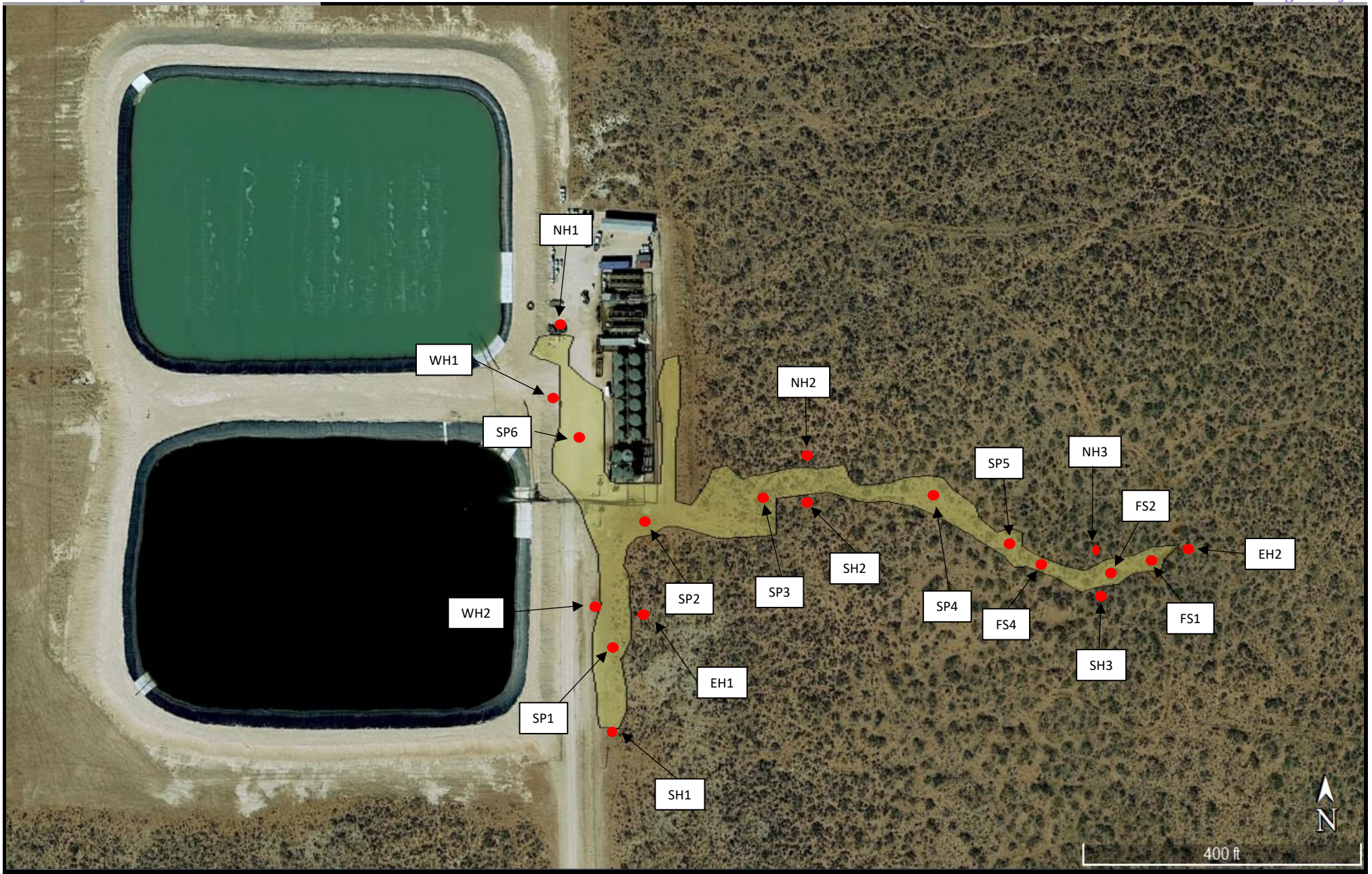
GPS: 32.039798, -103.675828

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 12/20/21

Figure 3A & 3B
Site & Sample Location Maps



Legend:

Affected Area

Sample Point

Figure 3A

Site & Sample Location Map (Delineation)

Red Hills Recycle Facility

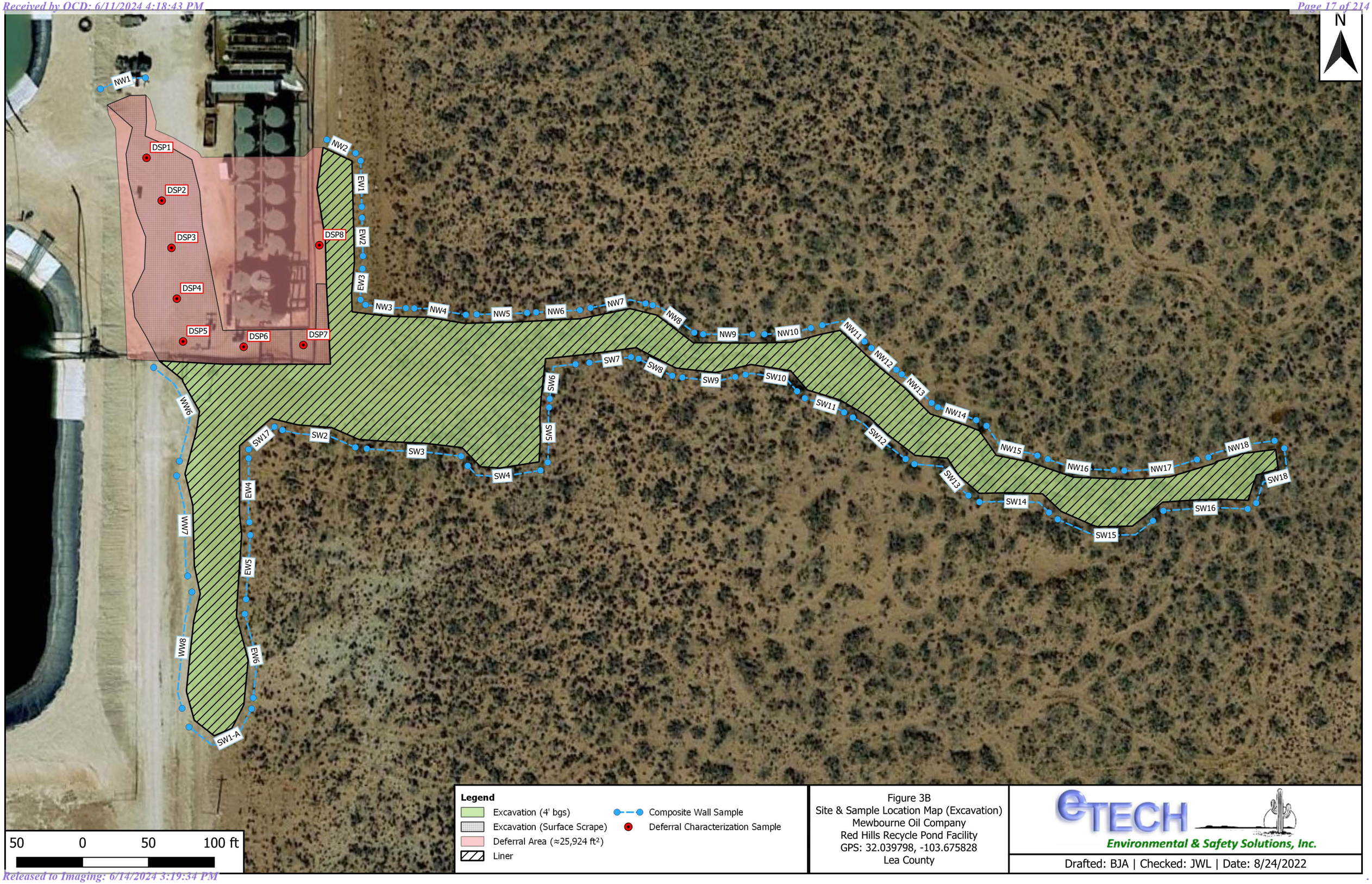
Mewbourne Oil Company

GPS: 32.039798, -103.675828

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: lc Checked: jwl Date: 3/8/22



Legend

- Excavation (4' bgs)
- Excavation (Surface Scrape)
- Deferral Area (≈25,924 ft²)
- Liner
- Composite Wall Sample
- Deferral Characterization Sample

Figure 3B
Site & Sample Location Map (Excavation)
Mewbourne Oil Company
Red Hills Recycle Pond Facility
GPS: 32.039798, -103.675828
Lea County

ETECH Environmental & Safety Solutions, Inc.

Drafted: BJA | Checked: JWL | Date: 8/24/2022

Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Table 1
Concentrations of BTEX, TPH & Chloride in Soil
Mewbourne Oil Company
Red Hills Recycle Pond Facility
NMOCD Ref. #: nAPP2124632147

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
NMOCD Reclamation Standard				**10**	**50**	**-**	**-**	**-**	**-**	**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 Samples											
FS1 @ 12'	2/9/2022	12	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
FS2 @ 13'	2/9/2022	13	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FS4 @ 4'	2/9/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SP1 @ Surf.	2/24/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**2,000**
SP1 @ 2'	2/24/2022	2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	464
SP2 @ Surf.	2/24/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**1,060**
SP2 @ 20'	2/24/2022	20	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**752**
SP2 @ 21'	3/1/2022	21	In-Situ	-	-	-	-	-	-	-	96.0
SP3 @ Surf.	2/24/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**1,920**
SP3 @ 14'	2/24/2022	14	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SP4 @ Surf.	2/24/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**1,520**
SP4 @ 14'	2/24/2022	14	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
SP6 @ Surf.	2/24/2022	0	Excavated	<0.050	<0.300	<10.0	98.0	98.0	<10.0	98.0	**832**
SP6 @ 2'	2/24/2022	2	In-Situ	<0.050	<0.300	<10.0	13.9	13.9	<10.0	13.9	96.0
NH1 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NH1 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	13.7	13.7	<10.0	13.7	80.0
NH2 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	192
NH2 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
NH3 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
NH3 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
EH1 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
EH1 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
EH2 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
EH2 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SH1 @ Surf.	2/25/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
SH1 @ 1'	2/25/2022	1	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SH2 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SH2 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SH3 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SH3 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
WH1 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
WH1 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
WH2 @ Surf.	2/25/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
WH2 @ 1'	2/25/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
DSP1 @ Surf.	3/18/2022	0	Deferral	<0.050	<0.300	<10.0	29.8	29.8	22.6	52.4	**20,800**
DSP1 @ 1'	3/18/2022	1	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
DSP2 @ Surf.	3/18/2022	0	Deferral	<0.050	<0.300	<10.0	1,040	1,040	928	**1,970**	**26,000**
DSP2 @ 1'	3/18/2022	1	Deferral	<0.050	<0.300	<10.0	18.4	18.4	18.2	36.6	80.0
DSP3 @ Surf.	3/18/2022	0	Deferral	<0.050	<0.300	<10.0	4,700	4,700	1,260	**5,960**	**32,800**
DSP3 @ 8'	3/18/2022	8	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	528

Dash (-): Not applicable OR 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
Red Hills Recycle Pond Facility
NMOCD Ref. #: nAPP2124632147

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
NMOCD Reclamation Standard				**10**	**50**	**-**	**-**	**-**	**-**	**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)**
DSP4 @ Surf.	3/18/2022	0	Deferral	<0.050	<0.300	<10.0	232	232	104	**336**	**54,000**
DSP4 @ 4'	3/18/2022	4	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
DSP5 @ Surf.	3/18/2022	0	Deferral	<0.050	<0.300	<10.0	68.4	68.4	27.0	95.4	**1,330**
DSP5 @ 8'	3/18/2022	8	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	416
DSP6 @ Surf.	3/21/2022	0	Deferral	<0.050	<0.300	<10.0	71.4	71.4	43.3	**115**	**93,600**
DSP6 @ 10'	3/21/2022	10	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	528
DSP7 @ Surf.	3/21/2022	0	Deferral	<0.050	<0.300	<10.0	689	689	456	**1,150**	**26,000**
DSP7 @ 14'	3/21/2022	14	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
DSP8 @ Surf.	3/21/2022	0	Deferral	<0.050	<0.300	<10.0	11.0	11.0	<10.0	11.0	**78,400**
DSP8 @ 8'	3/21/2022	8	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
DSP9 @ Surf.	3/21/2022	0	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**49,600**
DSP9 @ 8'	3/21/2022	8	Deferral	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
Excavation Samples											
NW1	2/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
NW2	2/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
NW3	2/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	224
NW4	2/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
NW5	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NW6	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
NW7	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
NW8	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NW9	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176
NW10	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
NW11	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
NW12	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
NW13	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
NW14	3/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
NW15	3/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
NW16	3/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NW17	3/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
NW18	3/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
EW1	2/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
EW2	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
EW3	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
EW4	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
EW5	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
EW6	3/16/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SW1	2/10/2022	2	Excavated	<0.050	<0.300	<10.0	206	206	57.8	**264**	80.0
SW1-A	3/9/2022	2	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
SW2	2/10/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW3	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0

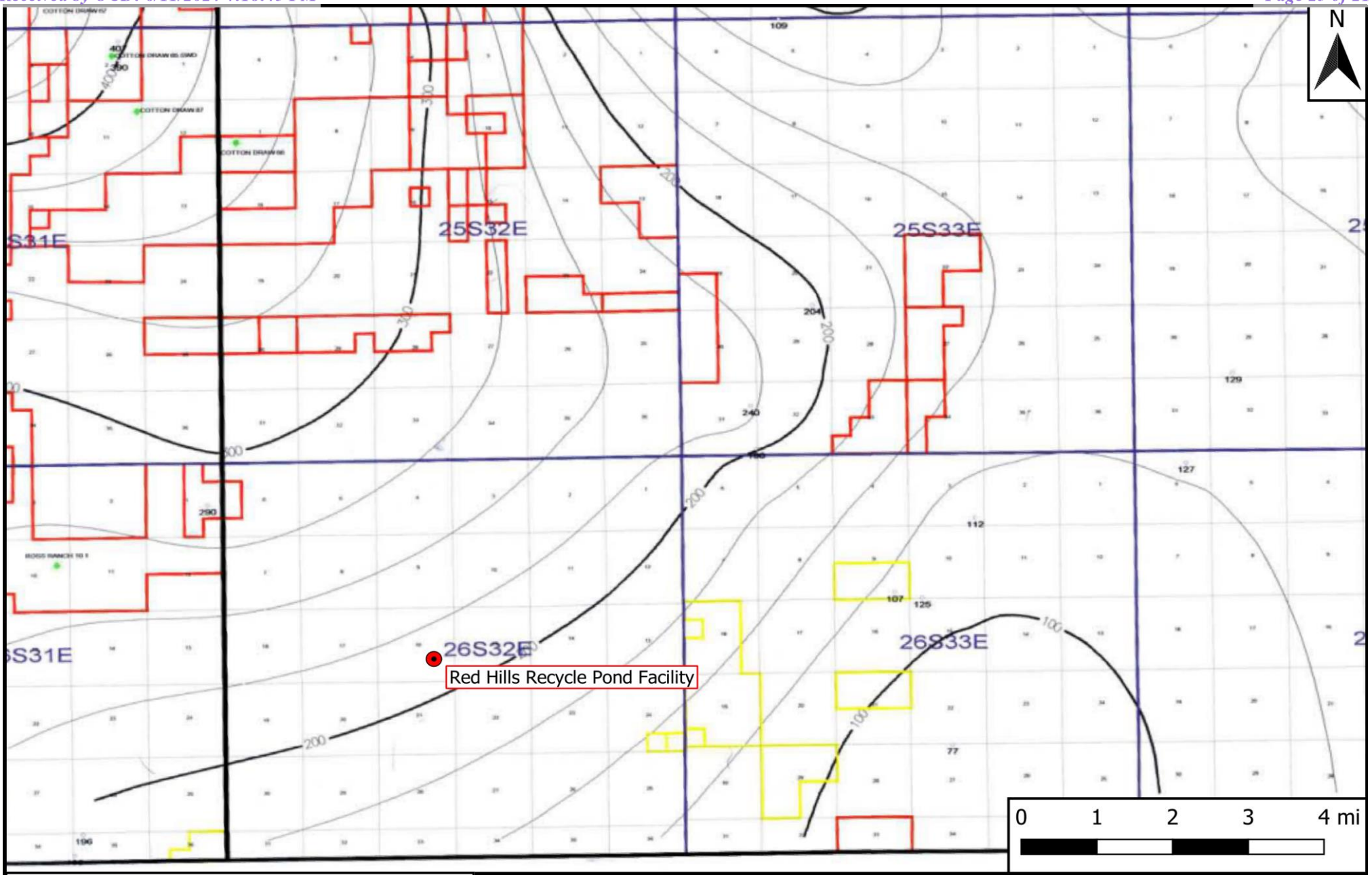
Dash (-): Not applicable OR Sample not analyzed for that constituent.
Bold: NMOCD Closure Criteria exceedance.
Red: NMOCD Reclamation Standard exceedance.

Table 1
Concentrations of BTEX, TPH & Chloride in Soil
Mewbourne Oil Company
Red Hills Recycle Pond Facility
NMOCD Ref. #: nAPP2124632147

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
NMOCD Reclamation Standard				**10**	**50**	**-**	**-**	**-**	**-**	**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)**
SW4	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW5	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW6	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SW7	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW8	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SW9	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW10	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW11	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
SW12	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW13	2/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
SW14	3/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
SW15	3/9/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SW16	3/10/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SW17	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
SW18	3/16/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	544
WW6	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
WW7	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
WW8	3/15/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0

Dash (-): Not applicable OR Sample not analyzed for that constituent.
Bold: NMOCD Closure Criteria exceedance.
Red: NMOCD Reclamation Standard exceedance.

Appendix A
Depth to Groundwater Information



Legend

Site Location

Figure 4

Inferred Depth to Groundwater Trend Map

Mewbourne Oil Company

Red Hills Recycle Pond Facility

GPS: 32.039798, -103.675828

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 12/20/21

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

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02271	R	CUB	LE	2	3		21	26S	32E	624449	3544111*	1609	150	125	25

Average Depth to Water: **125 feet**
Minimum Depth: **125 feet**
Maximum Depth: **125 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 625025.97 **Northing (Y):** 3545613.55 **Radius:** 1610

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

11/15/21 10:49 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02271		2	3	21	26S	32E	624449	3544111*

Driller License: **Driller Company:**

Driller Name: UNKNOWN

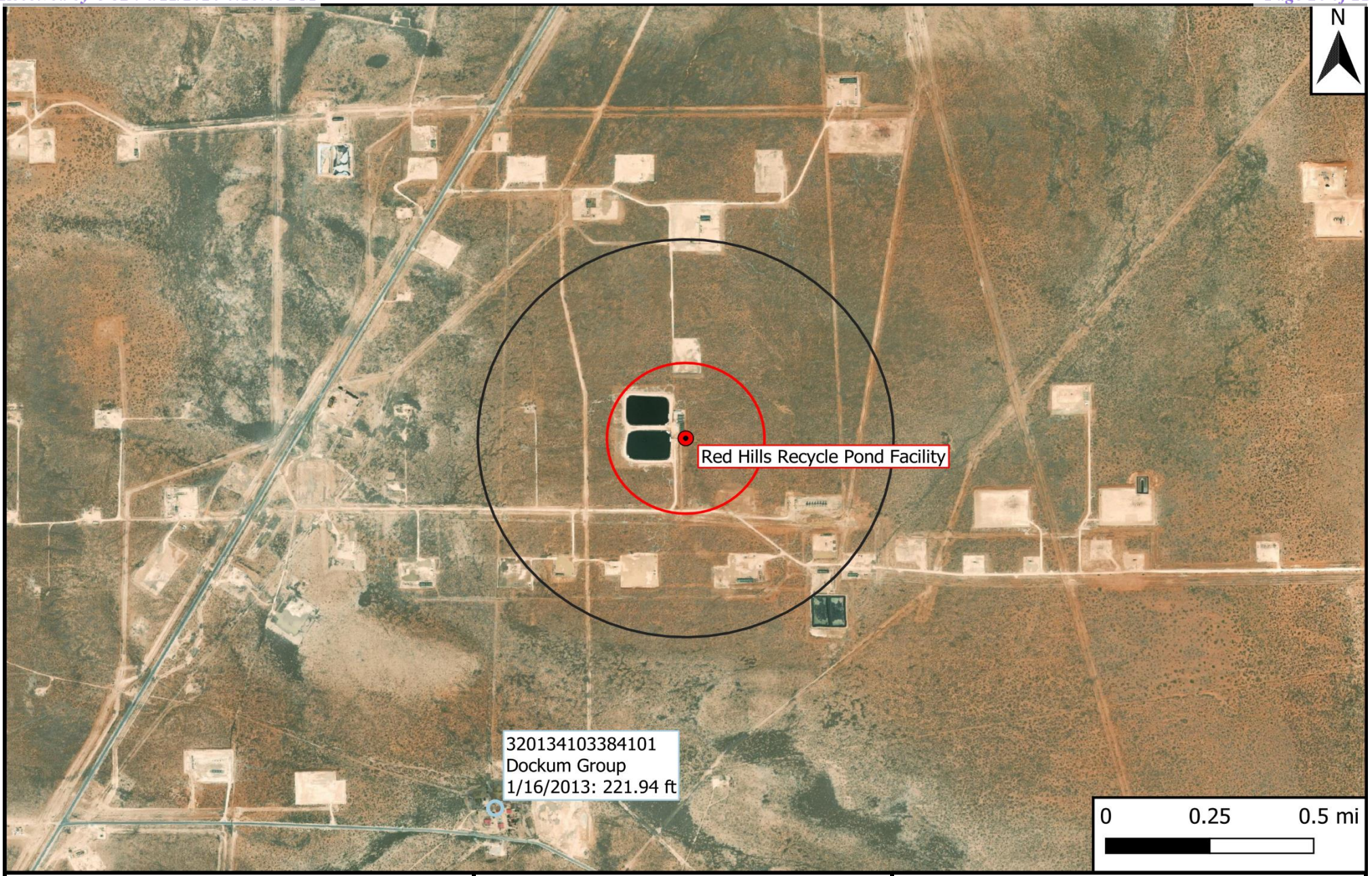
Drill Start Date: **Drill Finish Date:** 12/31/1909 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 15 GPM

Casing Size: 8.00 **Depth Well:** 150 feet **Depth Water:** 125 feet

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



Legend

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

Figure 5

USGS Well Proximity Map

Mewbourne Oil Company

Red Hills Recycle Pond Facility

GPS: 32.039798, -103.675828

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 12/20/21

National Water Information System: Web Interface

USGS Water Resources

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

Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320134103384101

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

USGS 320134103384101 26S.32E.21.32311

Lea County, New Mexico
Latitude 32°01'35.2", Longitude 103°41'01.8" NAD83
Land-surface elevation 3,130 feet above NAVD88
The depth of the well is 405 feet below land surface.
The depth of the hole is 405 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Dockum Group (231DCKM) 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
1993-06-16		D	72019	405.00			1	L			A
2013-01-16	19:10 UTC	m	72019	221.94			P	S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
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	L	Interpreted from geophysical logs.
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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

Appendix B
Field Data & Soil Profile Logs

eTECH Environmental & Safety Solutions, Inc.

Field Samples*

Date: 9/17 - 9/18/2021

Project: Red Hills Recycle Facility

Project Number: 14966 Latitude: 32.039798 Longitude: -103.675828

Sample ID	PID/Odor	Chloride Conc.	GPS
SP1 @ Surface		5,938	
SP1 @ 1'		2,221	
SP1 @ 2'		219	
SP2 @ Surface		14,253	
SP2 @ 1'		4,503	
SP2 @ 2'		2,036	
SP2 @ 3'		4,738	
SP2 @ 4'		3,018	
SP2 @ 5'		2,256	
SP2 @ 6'		3,072	
SP2 @ 7'		403	
SP3 @ 1'		1,192	
SP3 @ 2'		1,059	
SP3 @ 3'		1,071	
SP3 @ 4'		2,827	
SP3 @ 5'		1,500	
SP3 @ 6'		1,114	
SP3 @ 7'		815	
SP3 @ 8'		453	
SP4 @ Surface		12,338	
SP4 @ 1'		3,573	
SP4 @ 2'		1,924	
SP4 @ 3'		951	
SP4 @ 4'		900	
SP4 @ 5'		747	
SP4 @ 6'		370	
SP5 @ Surface		4,501	
SP5 @ 1'		1,374	
SP5 @ 2'		1,286	
SP5 @ 3'		604	
SP5 @ 4'		460	
SP6 @ Surface		346	
SP7 @ Surface		218	
SP8 @ Surface		66,619	
SP8 @ 1'		3,697	
SP8 @ 2'		3,203	
SP8 @ 3'		1,943	
SP8 @ 4'		1,305	

*Samples collected and field-screened by a third-party contractor that is no longer affiliated with the site.

eTECH Environmental & Safety Solutions, Inc.

Field Samples*

Date: 9/17 - 9/18/2021

Project: Red Hills Recycle Facility

Project Number: 14966 Latitude: 32.039798 Longitude: -103.675828

Sample ID	PID/Odor	Chloride Conc.	GPS
SP8 @ 5'		485	
H1		302	
H2		217	
H3		3,683	
H4		132	
H5		160	
H5		296	

*Samples collected and field-screened by a third-party contractor that is no longer affiliated with the site.

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 2-9-22

Project: Red Hills Recycle Facility

Project Number: 14966 Latitude: 32.039798 Longitude: -103.675828

Sample ID	PID/Odor	Chloride Conc.	GPS
FS1@3'·FS1@6'·FS1@10'	—	2840·1532·1240 >	FS1@12' 516
EW1 Left EW1 Right	—	384 384	
NW1 Left NW1 Right	—	<120 1532	
NW2 Left NW2 Right	—	468 732	
NW3 Left NW3 Right	—	468 384	
NW4 Right	—	344	
SW1 Left SW1 Right	—	236 1072·1152	
SW2 Left SW2 Right	—	924·1012 144	
SW3 Left SW3 Right	—	236 672	
SW4 Left SW4 Right	—	516	
FS2@7'·FS2@6'·FS2@	—	2204·2376·	
FS3@4'·FS3@6'·FS3@	—	1768·924	
FS4@4'	—	468	
FS2@10'·FS2@12'·FS2@13'	—	1332·732·172	
FS3@10'·FS3@12'	—	1900·620·	
SW1 Right	—	304	
SW2 Left	—	1340·1960·144	
FS3@16'	—	384	
FS5@5'·FS5@6'·FS5@8'	—	620·672·996·FS5@2' 924·FS5@14½' 236	
NW5 Left NW5 Right	—	268 <120	
SW5 Left	—	236	
NW6	—	172	
SW6	—	204	
FS6@6'	—	268	
SW7	—	268	
SW8	—	172	
NW7	—	172	
NW8	—	1428·<120	
NW9	—	792·236	
FS7@4'	—	304	
FS8@4	—	996	
SW9	—	708·<292	
SW10	—	324	
FS9@4'	—	1760	
FS10@4'	—	980	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

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

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

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 02/16/22

Project:

Project Number: 14966 Latitude: 32.039796 Long ude: -103.675824

Sample ID	PID/Odor	Chloride Conc.	GPS
SW10	—	228	
NW11	—	228	
FS 11@4'	—	1,232	
FS 12@4'	—	984	
SW11	—	1,232 · 4324	
NW12	—	Blowout. < 200	
FS 13@4'	—	708	
FS 14@4'	—	1,144	
SW12	—	592	
NW13	—	1026	
FS 15@4'	—	996	
NW13	—	516	
NW14	—	856 · 732 · 672	
SW12	—	144	
SW13	—	144	
FS16@4'	—	996	
FS17@4'	—	1332	
SW14	—	1240 · 1900 · 1332	
FS18@4'	—	1768	
NW14	—	872 · 568	
NW15	—	996 · 792	
SW14	—	1152	
NW15	—	996 · 1532 · 1428 · 620	
SW13+	—	924 · 1072 · 1072 · 996	
SW14+	—	1072 · 856	
SW13+	—	1240 · 996	
SW13++	—	1333	
NW15	—	856 · 620 · 620	
NW15+	—	1240	
NW15+	—	620	
SW13+	—	1152	
NW15+	—	144	
SW13+	—	468	
SW12++	—	924 · 568 · 384	
NW16	—	996 · 996	

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

GP5 Sample Points, Center of Comp Areas

Environmental & Safety Solutions, Inc.

Sample Log

Date: _____

Project:

Project Number: _____ Latitude: _____ Longitude: _____

Sample ID	PID/Odor	Chloride Conc.	GPS
SW13+	—	732-856-856-620-568	
NW16?	—	516-468	
NW16+++	—	296-260-228	
WW1	—	1576	
WW2	—	4332	
NW15	—	144	
NW16	—	296	
NW17	—	260	
NW18	—	228	
SW14	—	468	
SW15	—	384	
SW16	—	<116	
WW3	—	2464	
WW4	—	704	
SW17	—	196	
WW5	—	1368	
SW17+	—	228	
SW17++	—	372	
WW6	—	412	
WW7	—	500	
EW2	—	296	
EW3	—	296	
WW8	—	228	
EW4	—	196	
FA@4'	—	260	
FB@4'	—	372	
FC@2'	—	168	
FD@2'	—	760	
EW5	—	228	
WW9	—	956	
WW9	—	824-596-412	
FD@3'-FD@4'	—	596-228	
FE@2'	—	196	
EW6	—	116	
FF@2'	—	452	
SW18	—	548	
Sample Point = SP #1 @ ## etc FG@2'	—	196	Test Trench = TT #1 @ ##
Floor = FL #1 etc FH@2'	—	168	Refusal = SP #1 @ 4'-R
Sidewall = SW #1 etc			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

Environmental & Safety Solutions, Inc.

Sample Log

Test Trenches + Horizontals

Date: 2-24-22

Project: Red Hills Recycle Facility

Project Number: 14966 Latitude: 32.039798 Longitude: -103.675828

Test Trenches

Sample ID	PID/Odor	Chloride Conc.	GPS
SP1@Surf. • SP1@2'	–	1,900 • 344	
SP2@Surf. • SP2@2'	–	1,532 • 1,648 •	
SP2@4' • SP2@6'	–	2,572 • 2,376 •	
SP2@8' • SP2@10'	–	2,600 • 2,204 •	
SP2@12' • SP2@14'	–	1072 • 1,240 •	
SP2@16' • SP2@18' • SP2@20'	–	1,152 • 620 • 468 SP2@21' - 236	
SP3@Surf. • SP3@2' • SP3@4'	–	2,600 • 2376 • 2,572 •	
SP3@6' • SP3@8' • SP3@10'	–	1900 • 1,648 • 1,532 •	
SP3@12' • SP3@14'	–	1152 • 468	
SP4@Surf. • SP4@2' • SP4@4'	–	1,900 • 1,240 • 996 •	
SP4@6' • SP4@8' • SP4@10'	–	792 • 672 • 924 •	
SP4@12' • SP4@14'	–	620 • 516	
SP5@Surf • SP5@2' • SP5@4'	–	2,840 • 2,200 • 2,376 •	
SP5@6' • SP5@8' • SP5@10'	–	1,900 • 1,532 • 1,240 •	
SP5@12'	–	512	
SP6@Surf. • SP6@2'	–	1,240 • 172	
*Horizontals			
NH1@Surf. • NH1@1'	–	236 • 172	
NH2@Surf. • NH2@1'	–	384 • 144	
NH3@Surf. • NH3@1'	–	228 • <120	
EH1@Surf. • EH1@1'	–	236 • <120	
EH2@Surf. • EH2@1'	–	228 • 172	
SH1@Surf. • SH1@1'	–	324 • 144	
SH2@Surf. • SH2@1'	–	268 • 144	
SH3@Surf. • SH3@1'	–	268 • <120	
WH1@Surf. • WH1@1'	–	236 • 172	
WH2@Surf. • WH2@1'	–	236 • 144	

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

TECH Environmental & Safety Solutions, Inc.

Soil Profile

Date: _____

Project: Red Hills Recycle Facility

Project Number: 14966 Latitude: 32.039798 Longitude: -103.675828

Depth (ft. bgs)	Description
Surface	Sand, Red Sand, drift Sand
4'	Caliche, rock.
8'	Caliche, Clay
12'	Sand, Clay
16'	Clay
20'	

Appendix C
Photographic Log

Photographic Log

Photo Number: 1	
Date: 7/12/2021	
Photo Direction: North	
Coordinates: 32.039739,-103.676102	
Photo Description:	
View of the affected area.	

Photo Number: 2	
Date: 7/12/2021	
Photo Direction: Northeast	
Coordinates: 32.039810,-103.676211	
Photo Description:	
View of the affected area.	

Photographic Log

Photo Number: 3	
Date: 7/12/2021	
Photo Direction: Southeast	
Coordinates: 32.039904,-103.676145	
Photo Description:	
View of the affected area.	

Photo Number: 4	
Date: 7/12/2021	
Photo Direction: East-Northeast	
Coordinates: 32.039904,-103.676145	
Photo Description:	
View of the affected area.	

Photographic Log

Photo Number: 5 **Date:** 7/12/2021 **Photo Direction:** South **Coordinates:** 32.039904,-103.676145 **Photo Description:** View of the affected area.	

Photo Number: 6 **Date:** 7/12/2021 **Photo Direction:** South **Coordinates:** 32.040566,-103.675829 **Photo Description:** View of the affected area.	

Photographic Log

Photo Number: 7	
Date: 7/12/2021	
Photo Direction: South	
Coordinates: 32.039659,-103.676085	
Photo Description:	
View of the affected area.	

Photo Number: 8	
Date: 3/15/2022	
Photo Direction: East	
Coordinates: 32.039770, -103.676123	
Photo Description:	
View of the excavated area.	

Photographic Log

Photo Number: 9	
Date: 3/15/2022	
Photo Direction: South	
Coordinates: 32.039770, -103.676123	
Photo Description:	
View of the excavated area.	

Photo Number: 10	
Date: 3/15/2022	
Photo Direction: North	
Coordinates: 32.039875, -103.675798	
Photo Description:	
View of the excavated area.	

Photographic Log

Photo Number: 11	
Date: 3/15/2022	
Photo Direction: Southwest	
Coordinates: 32.039784, -103.675357	
Photo Description:	
View of the excavated area.	

Photo Number: 12	
Date: 3/15/2022	
Photo Direction: Northwest	
Coordinates: 32.039612, -103.675372	
Photo Description:	
View of the excavated area.	

Photographic Log

Photo Number: 13	
Date: 3/15/2022	
Photo Direction: East	
Coordinates: 32.039855, -103.675144	
Photo Description:	
View of the excavated area.	

Photo Number: 14	
Date: 3/15/2022	
Photo Direction: East	
Coordinates: 32.039803, -103.674826	
Photo Description:	
View of the excavated area.	

Photographic Log

Photo Number: 15	
Date: 3/15/2022	
Photo Direction: East-Northeast	
Coordinates: 32.039531, -103.674077	
Photo Description:	
View of the excavated area.	

Photo Number: 16	
Date: 3/15/2022	
Photo Direction: West	
Coordinates: 32.039575, -103.673456	
Photo Description:	
View of the excavated area.	

Photographic Log

Photo Number: 17	
Date: 6/21/2022	
Photo Direction: North	
Coordinates: 32.039114, -103.676103	
Photo Description:	
View of liner installation.	

Photo Number: 18	
Date: 6/21/2022	
Photo Direction: East	
Coordinates: 32.039214, -103.676107	
Photo Description:	
View of liner installation.	

Photographic Log

Photo Number: 19	
Date: 7/6/2022	
Photo Direction: North	
Coordinates: 32.039609, -103.675705	
Photo Description:	
View of the remediated area after backfilling and regrading.	

Photo Number: 20	
Date: 7/6/2022	
Photo Direction: Northeast	
Coordinates: 32.039609, -103.675705	
Photo Description:	
View of the remediated area after backfilling and regrading.	

Photographic Log

Photo Number: 21	
Date: 7/6/2022	
Photo Direction: Southeast	
Coordinates: 32.039680, -103.674738	
Photo Description:	
View of the remediated area after backfilling and regrading.	

Photo Number: 22	
Date: 7/6/2022	
Photo Direction: Northwest	
Coordinates: 32.039329, -103.673909	
Photo Description:	
View of the remediated area after backfilling and regrading.	

Photographic Log

Photo Number: 23	
Date: 7/6/2022	
Photo Direction: Northwest	
Coordinates: 32.039680, -103.674738	
Photo Description:	
View of the remediated area after backfilling and regrading.	

Photo Number: 24	
Date: 7/6/2022	
Photo Direction: Northwest	
Coordinates: 32.040168, -103.675558	
Photo Description:	
View of the remediated area after backfilling and regrading.	

Photographic Log

Photo Number: 25	
Date: 7/6/2022	
Photo Direction: Southwest	
Coordinates: 32.040078, -103.675486	
Photo Description:	
View of the remediated area after backfilling and regrading.	

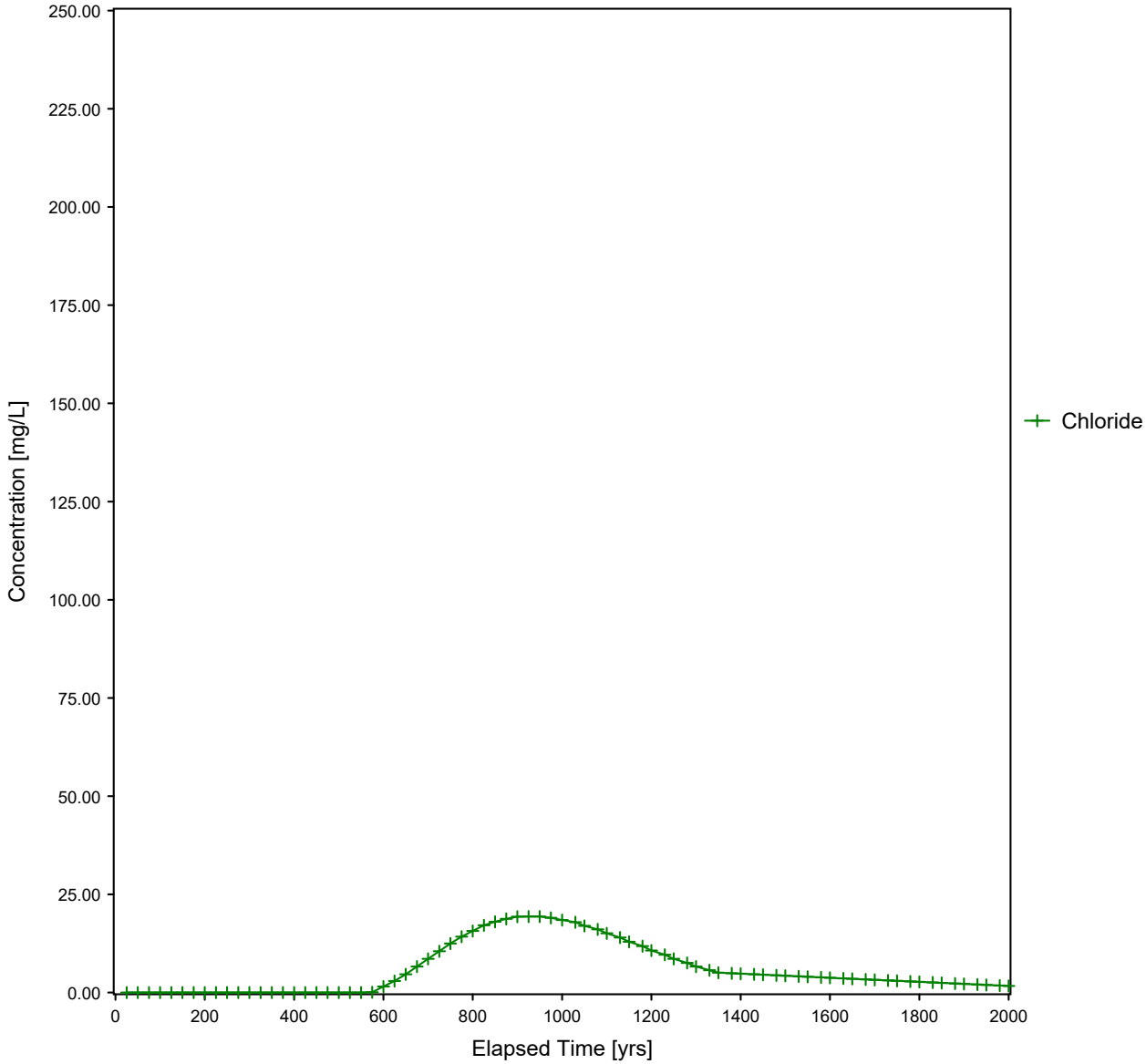
Photo Number: 26	
Date: 7/6/2022	
Photo Direction: North	
Coordinates: 32.038948, -103.676089	
Photo Description:	
View of the remediated area after backfilling and regrading.	

Appendix D
Multimedia Exposure Assessment Model (MULTIMED)

Excavation

Chloride Concentration at the Receptor Well (Lined Excavation)

Mewbourne Oil Company
Red Hills Recycle Pond Facility



U. S. E N V I R O N M E N T A L P R O T E C T I O N A G E N C Y

E X P O S U R E A S S E S S M E N T

M U L T I M E D I A M O D E L

MULTIMED (Version 1.50, 2005)

Switched to Stehfest algorithm to avoid numerical problems
with Convolution algorithm. Problems were caused by
high source decay rate. Everything ok now, execution continuing...
1
Run options
--- -------

Newbourne Oil Company
Red Hills Recycle Pond Facility

Chemical simulated is Chloride

Option Chosen
Run was Saturated and unsaturated zone models
DETERMIN
Infiltration Specified By User: 7.620E-03 m/yr
Run was transient
Well Times: Find Maximium Concentration
Reject runs if Y coordinate outside plume
Reject runs if Z coordinate outside plume
Gaussian source used in saturated zone model
1
1
UNSATURATED ZONE FLOW MODEL PARAMETERS
(input parameter description and value)

NP	- Total number of nodal points	240
NMAT	- Number of different porous materials	1
KPROP	- Van Genuchten or Brooks and Corey	1
IMSHGN	- Spatial discretization option	1
NVFLAYR	- Number of layers in flow model	1

OPTIONS CHOSEN
------- ------
Van Genuchten functional coefficients
User defined coordinate system
1

Layer information

LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	31.70	1

DATA FOR MATERIAL 1

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.250	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	31.7	0.000	0.000	0.000

DATA FOR MATERIAL 1

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

1

UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	- Number of different layers used		1
NTSTPS	- Number of time values concentration calc		40
DUMMY	- Not presently used		1
ISOL	- Type of scheme used in unsaturated zone		1
N	- Stehfest terms or number of increments		18
NTEL	- Points in Lagrangian interpolation		3
NGPTS	- Number of Gauss points		104
NIT	- Convolution integral segments		2
IBOUND	- Type of boundary condition		3
ITSGEN	- Time values generated or input		1
TMAX	- Max simulation time	--	0.0
WTFUN	- Weighting factor	--	1.2

OPTIONS CHOSEN

Stehfest numerical inversion algorithm
Exponentially decaying continuous source
Computer generated times for computing concentrations

1

DATA FOR LAYER 1

VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Thickness of layer	m	CONSTANT	31.7	-999.	-999.	-999.
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.
Percent organic matter	--	CONSTANT	0.000	-999.	-999.	-999.
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.

1

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	C	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	C	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute	--	CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

1

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Infiltration rate	m/yr	CONSTANT	0.762E-02	-999.	-999.	-999.
Area of waste disposal unit	m^2	CONSTANT	0.459E+04	-999.	-999.	-999.
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.
Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000
Initial concentration at landfill	mg/l	CONSTANT	0.128E+04	-999.	-999.	-999.

Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Near field dilution		DERIVED	1.00	0.000	0.000	1.00

1

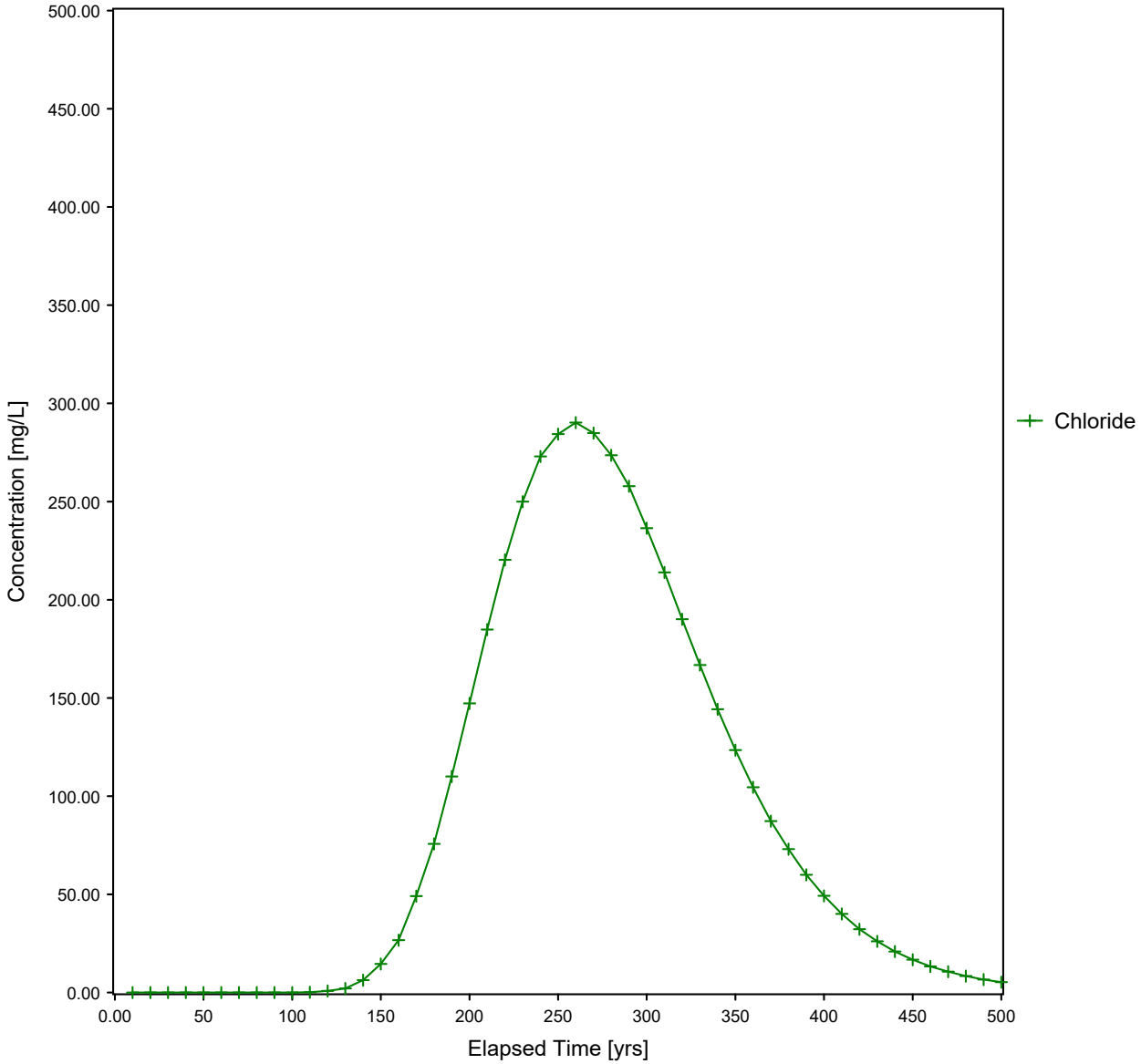
AQUIFER SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS	
			MEAN	STD DEV	MIN	MAX
Particle diameter	cm	CONSTANT	-999.	-999.	-999.	-999.
Aquifer porosity	--	CONSTANT	0.300	-999.	-999.	-999.
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.
Source thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.	-999.
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.
Retardation coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Temperature of aquifer	C	CONSTANT	20.0	-999.	-999.	-999.
pH	--	CONSTANT	7.00	-999.	-999.	-999.
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.

MAXIMUM WELL CONCENTRATION IS 19.38 AT 958 YEARS

Chloride Concentration at the Receptor Well (Unlined Excavation)

Mewbourne Oil Company
Red Hills Recycle Pond Facility



U. S. E N V I R O N M E N T A L P R O T E C T I O N A G E N C Y

E X P O S U R E A S S E S S M E N T

M U L T I M E D I A M O D E L

MULTIMED (Version 1.50, 2005)

1
Run options
--- -------

Midbourne Oil Company
Red Hills Recycle Pond Facility

Chemical simulated is Chloride

Option Chosen
Run was Saturated and unsaturated zone models
DETERMIN
Infiltration Specified By User: 3.048E-02 m/yr
Run was transient
Well Times: Find Maximium Concentration
Reject runs if Y coordinate outside plume
Reject runs if Z coordinate outside plume
Gaussian source used in saturated zone model
1
1
UNSATURATED ZONE FLOW MODEL PARAMETERS
(input parameter description and value)

NP	- Total number of nodal points	240
NMAT	- Number of different porous materials	1
KPROP	- Van Genuchten or Brooks and Corey	1
IMSHGN	- Spatial discretization option	1
NVFLAYR	- Number of layers in flow model	1

OPTIONS CHOSEN
------- ------
Van Genuchten functional coefficients
User defined coordinate system
1

Layer information

LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	31.70	1

DATA FOR MATERIAL 1

DATA FOR MATERIAL 1
VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.250	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	31.7	0.000	0.000	0.000

DATA FOR MATERIAL 1
VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

1

UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	- Number of different layers used		1
NTSTPS	- Number of time values concentration calc		40
DUMMY	- Not presently used		1
ISOL	- Type of scheme used in unsaturated zone		2
N	- Stehfest terms or number of increments		18
NTEL	- Points in Lagrangian interpolation		3
NGPTS	- Number of Gauss points		104
NIT	- Convolution integral segments		2
IBOUND	- Type of boundary condition		3
ITSGEN	- Time values generated or input		1
TMAX	- Max simulation time	--	0.0
WTFUN	- Weighting factor	--	1.2

OPTIONS CHOSEN
Convolution integral approach
Exponentially decaying continuous source
Computer generated times for computing concentrations

1

DATA FOR LAYER 1
VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Thickness of layer	m	CONSTANT	31.7	-999.	-999.	-999.
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.
Percent organic matter	--	CONSTANT	0.000	-999.	-999.	-999.
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.

1

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	C	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	C	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute	--	CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

1

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Infiltration rate	m/yr	CONSTANT	0.305E-01	-999.	-999.	-999.
Area of waste disposal unit	m^2	CONSTANT	0.459E+04	-999.	-999.	-999.
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.
Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000
Initial concentration at landfill	mg/l	CONSTANT	0.128E+04	-999.	-999.	-999.
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Near field dilution		DERIVED	1.00	0.000	0.000	1.00

1

AQUIFER SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS	
			MEAN	STD DEV	MIN	MAX
Particle diameter	cm	CONSTANT	-999.	-999.	-999.	-999.
Aquifer porosity	--	CONSTANT	0.300	-999.	-999.	-999.
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.
Source thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.	-999.
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.
Retardation coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Temperature of aquifer	C	CONSTANT	20.0	-999.	-999.	-999.
pH	--	CONSTANT	7.00	-999.	-999.	-999.
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.

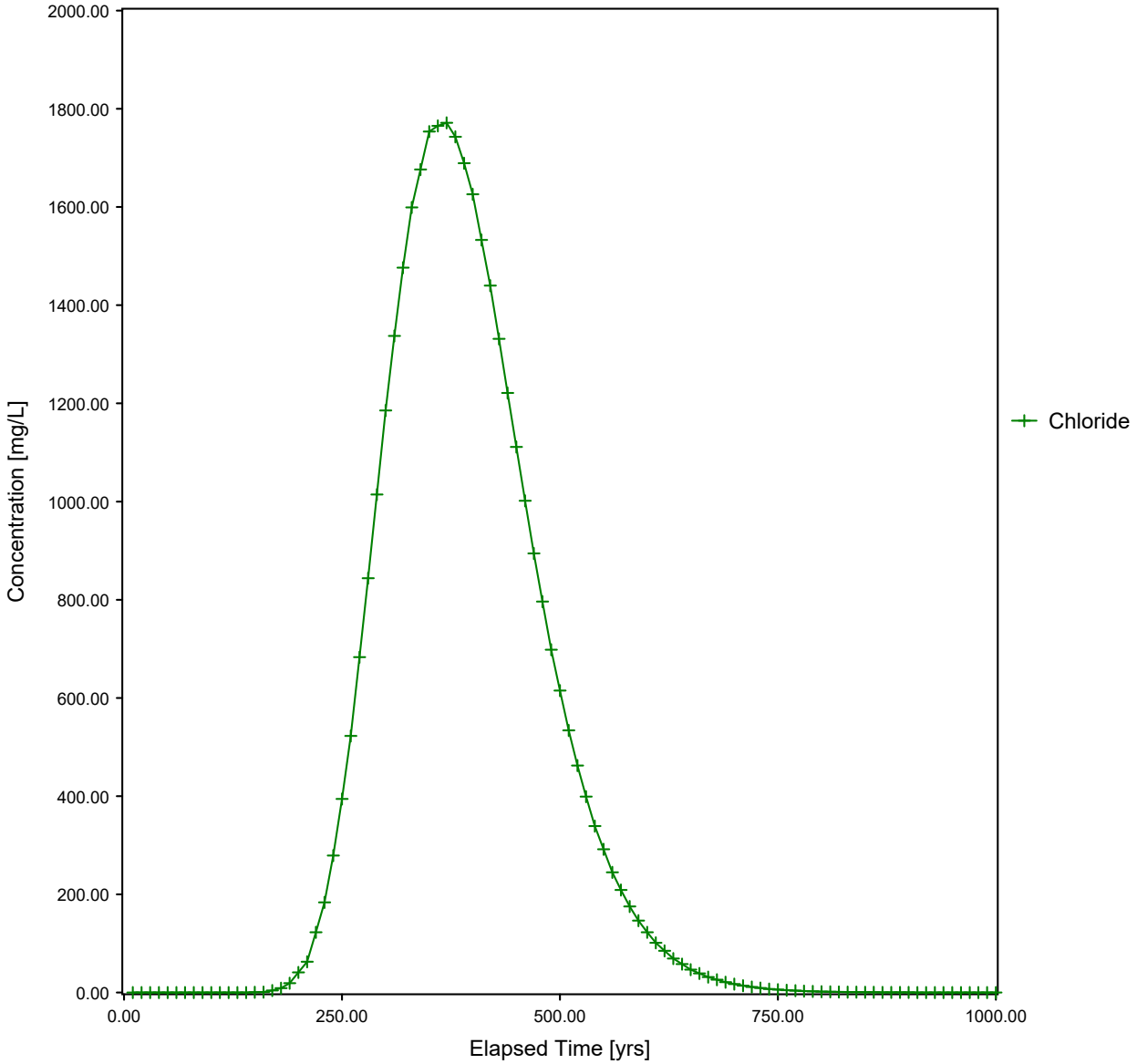
MAXIMUM WELL CONCENTRATION IS 291.1 AT 258 YEARS

Appendix E
Multimedia Exposure Assessment Model (MULTIMED)

Deferral Area

Chloride Concentration at the Receptor Well (Deferred Area)

Mewbourne Oil Company
Red Hills Recycle Pond Facility



U. S. E N V I R O N M E N T A L P R O T E C T I O N A G E N C Y

E X P O S U R E A S S E S S M E N T

M U L T I M E D I A M O D E L

MULTIMED (Version 1.50, 2005)

1
Run options
--- -------

Mewbourne Oil Company
Red Hills Recycle Pond Facility

Chemical simulated is Chloride

Option Chosen
Run was Saturated and unsaturated zone models
DETERMIN
Infiltration Specified By User: 2.286E-02 m/yr
Run was transient
Well Times: Find Maximium Concentration
Reject runs if Y coordinate outside plume
Reject runs if Z coordinate outside plume
Gaussian source used in saturated zone model
1
1
UNSATURATED ZONE FLOW MODEL PARAMETERS
(input parameter description and value)

NP	- Total number of nodal points	240
NMAT	- Number of different porous materials	3
KPROP	- Van Genuchten or Brooks and Corey	1
IMSHGN	- Spatial discretization option	1
NVFLAYR	- Number of layers in flow model	3

OPTIONS CHOSEN
------- ------
Van Genuchten functional coefficients
User defined coordinate system
1

Layer information

LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	33.00	1
2	2.50	2
3	0.50	3

DATA FOR MATERIAL 1

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.250	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 1

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

DATA FOR MATERIAL 2

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.140	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.120	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 2

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.

Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

DATA FOR MATERIAL 3

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.848E-03	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.150	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 3

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-03	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

1

UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	- Number of different layers used		1
NTSTPS	- Number of time values concentration calc		40
DUMMY	- Not presently used		1
ISOL	- Type of scheme used in unsaturated zone		2
N	- Stehfest terms or number of increments		18
NTEL	- Points in Lagrangian interpolation		3
NGPTS	- Number of Gauss points		104
NIT	- Convolution integral segments		2
IBOUND	- Type of boundary condition		3
ITSGEN	- Time values generated or input		1
TMAX	- Max simulation time	--	0.0
WTFUN	- Weighting factor	--	1.2

OPTIONS CHOSEN

Convolution integral approach
Exponentially decaying continuous source
Computer generated times for computing concentrations

DATA FOR LAYER 1

VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Thickness of layer	m	CONSTANT	36.0	-999.	-999.	-999.
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.
Percent organic matter	--	CONSTANT	0.000	-999.	-999.	-999.
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	C	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	C	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute	--	CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Infiltration rate	m/yr	CONSTANT	0.229E-01	-999.	-999.	-999.
Area of waste disposal unit	m^2	CONSTANT	0.241E+04	-999.	-999.	-999.
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.

Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000
Initial concentration at landfill	mg/l	CONSTANT	0.193E+05	-999.	-999.	-999.
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Near field dilution		DERIVED	1.00	0.000	0.000	1.00

1

AQUIFER SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS	
			MEAN	STD DEV	MIN	MAX
Particle diameter	cm	CONSTANT	-999.	-999.	-999.	-999.
Aquifer porosity	--	CONSTANT	0.300	-999.	-999.	-999.
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.
Source thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.	-999.
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.
Retardation coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Temperature of aquifer	C	CONSTANT	20.0	-999.	-999.	-999.
pH	--	CONSTANT	7.00	-999.	-999.	-999.
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.

MAXIMUM WELL CONCENTRATION IS 1774. AT 374 YEARS

U. S. E N V I R O N M E N T A L P R O T E C T I O N A G E N C Y

E X P O S U R E A S S E S S M E N T

M U L T I M E D I A M O D E L

MULTIMED (Version 1.50, 2005)

1
Run options
--- -------

Mewbourne Oil Company
Red Hills Recycle Pond Facility

Chemical simulated is Chloride

Option Chosen
Run was Saturated and unsaturated zone models
DETERMIN
Infiltration Specified By User: 2.286E-02 m/yr
Run was transient
Well Times: Entered Explicitly
Reject runs if Y coordinate outside plume
Reject runs if Z coordinate outside plume
Gaussian source used in saturated zone model
1
1
UNSATURATED ZONE FLOW MODEL PARAMETERS
(input parameter description and value)
NP - Total number of nodal points 240
NMAT - Number of different porous materials 3
KPROP - Van Genuchten or Brooks and Corey 1
IMSHGN - Spatial discretization option 1
NVFLAYR - Number of layers in flow model 3

OPTIONS CHOSEN
------- ------
Van Genuchten functional coefficients
User defined coordinate system
1

Layer information

LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	33.00	1
2	2.50	2
3	0.50	3

DATA FOR MATERIAL 1

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.250	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 1

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

DATA FOR MATERIAL 2

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.140	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.120	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 2

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	STD DEV	LIMITS MIN	MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.

Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

DATA FOR MATERIAL 3

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS	
			MEAN	STD DEV	MIN	MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.848E-03	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.150	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	36.0	0.000	0.000	0.000

DATA FOR MATERIAL 3

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS	
			MEAN	STD DEV	MIN	MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-03	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

1

UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	- Number of different layers used		1
NTSTPS	- Number of time values concentration calc		40
DUMMY	- Not presently used		1
ISOL	- Type of scheme used in unsaturated zone		2
N	- Stehfest terms or number of increments		18
NTEL	- Points in Lagrangian interpolation		3
NGPTS	- Number of Gauss points		104
NIT	- Convolution integral segments		2
IBOUND	- Type of boundary condition		3
ITSGEN	- Time values generated or input		1
TMAX	- Max simulation time	--	0.0
WTFUN	- Weighting factor	--	1.2

OPTIONS CHOSEN

Convolution integral approach
Exponentially decaying continuous source
Computer generated times for computing concentrations

DATA FOR LAYER 1

VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Thickness of layer	m	CONSTANT	36.0	-999.	-999.	-999.
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.
Percent organic matter	--	CONSTANT	0.000	-999.	-999.	-999.
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	C	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	C	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute	--	CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Infiltration rate	m/yr	CONSTANT	0.229E-01	-999.	-999.	-999.
Area of waste disposal unit	m^2	CONSTANT	0.241E+04	-999.	-999.	-999.
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.

Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000
Initial concentration at landfill	mg/l	CONSTANT	0.193E+05	-999.	-999.	-999.
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Near field dilution		DERIVED	1.00	0.000	0.000	1.00

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AQUIFER SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LIMITS	
			MEAN	STD DEV	MIN	MAX
Particle diameter	cm	CONSTANT	-999.	-999.	-999.	-999.
Aquifer porosity	--	CONSTANT	0.300	-999.	-999.	-999.
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.
Source thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.	-999.
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.
Retardation coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Temperature of aquifer	C	CONSTANT	20.0	-999.	-999.	-999.
pH	--	CONSTANT	7.00	-999.	-999.	-999.
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.

1

TIME	CONCENTRATION
0.100E+02	0.00000E+00
0.200E+02	0.00000E+00
0.300E+02	0.00000E+00
0.400E+02	0.00000E+00
0.500E+02	0.00000E+00
0.600E+02	0.00000E+00
0.700E+02	0.00000E+00
0.800E+02	0.00000E+00
0.900E+02	0.00000E+00
0.100E+03	0.00000E+00
0.110E+03	0.00000E+00
0.120E+03	0.00000E+00
0.130E+03	0.00000E+00
0.140E+03	0.00000E+00
0.150E+03	0.49429E+00
0.160E+03	0.99038E+00
0.170E+03	0.42447E+01
0.180E+03	0.89503E+01
0.190E+03	0.19049E+02

0.200E+03	0.40927E+02
0.210E+03	0.62804E+02
0.220E+03	0.12270E+03
0.230E+03	0.18365E+03
0.240E+03	0.27895E+03
0.250E+03	0.39428E+03
0.260E+03	0.52274E+03
0.270E+03	0.68325E+03
0.280E+03	0.84376E+03
0.290E+03	0.10144E+04
0.300E+03	0.11855E+04
0.310E+03	0.13373E+04
0.320E+03	0.14766E+04
0.330E+03	0.15993E+04
0.340E+03	0.16764E+04
0.350E+03	0.17536E+04
0.360E+03	0.17652E+04
0.370E+03	0.17716E+04
0.380E+03	0.17429E+04
0.390E+03	0.16892E+04
0.400E+03	0.16259E+04
0.410E+03	0.15329E+04
0.420E+03	0.14399E+04
0.430E+03	0.13314E+04
0.440E+03	0.12212E+04
0.450E+03	0.11113E+04
0.460E+03	0.10016E+04
0.470E+03	0.89443E+03
0.480E+03	0.79637E+03
0.490E+03	0.69832E+03
0.500E+03	0.61514E+03
0.510E+03	0.53401E+03
0.520E+03	0.46247E+03
0.530E+03	0.39916E+03
0.540E+03	0.33905E+03
0.550E+03	0.29188E+03
0.560E+03	0.24473E+03
0.570E+03	0.20900E+03
0.580E+03	0.17520E+03
0.590E+03	0.14657E+03
0.600E+03	0.12282E+03
0.610E+03	0.10145E+03
0.620E+03	0.84947E+02
0.630E+03	0.69230E+02
0.640E+03	0.57967E+02
0.650E+03	0.46731E+02
0.660E+03	0.39066E+02
0.670E+03	0.31551E+02
0.680E+03	0.26024E+02
0.690E+03	0.21076E+02
0.700E+03	0.17150E+02
0.710E+03	0.13936E+02
0.720E+03	0.11187E+02
0.730E+03	0.91249E+01
0.740E+03	0.72280E+01
0.750E+03	0.59184E+01

0.760E+03	0.46511E+01
0.770E+03	0.38025E+01
0.780E+03	0.29791E+01
0.790E+03	0.24192E+01
0.800E+03	0.19059E+01
0.810E+03	0.15227E+01
0.820E+03	0.12051E+01
0.830E+03	0.94623E+00
0.840E+03	0.75106E+00
0.850E+03	0.57829E+00
0.860E+03	0.45909E+00
0.870E+03	0.34557E+00
0.880E+03	0.27262E+00
0.890E+03	0.20022E+00
0.900E+03	0.15430E+00
0.910E+03	0.11054E+00
0.920E+03	0.79675E-01
0.930E+03	0.53342E-01
0.940E+03	0.32863E-01
0.950E+03	0.17080E-01
0.960E+03	0.36497E-02
0.970E+03	0.00000E+00
0.980E+03	0.00000E+00
0.990E+03	0.00000E+00
0.100E+04	0.00000E+00

Appendix F
Laboratory Analytical Reports

CARDINAL Laboratories

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

February 14, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 02/10/22 15:49.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: FS 1 @ 12' (H220537-01)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	QR-03
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *116 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: FS 2 @ 13' (H220537-02)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *127 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *143 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: FS 4 @ 4' (H220537-03)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *119 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 1 (H220537-04)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**288**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *109 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *122 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 2 (H220537-05)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *137 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *154 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 3 (H220537-06)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *122 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *136 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 4 (H220537-07)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *107 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *120 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/09/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 1 (H220537-08)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *100 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *113 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/10/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 1 (H220537-09)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	**206**	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	**57.8**	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *125 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/10/2022	Sampling Date:	02/10/2022
Reported:	02/14/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 2 (H220537-10)

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	02/13/2022	ND	1.84	92.0	2.00	9.98	
Toluene*	<0.050	0.050	02/13/2022	ND	1.85	92.7	2.00	9.19	
Ethylbenzene*	<0.050	0.050	02/13/2022	ND	1.88	94.1	2.00	8.65	
Total Xylenes*	<0.150	0.150	02/13/2022	ND	5.84	97.3	6.00	8.46	
Total BTEX	<0.300	0.300	02/13/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	02/11/2022	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/13/2022	ND	201	101	200	1.08	
DRO >C10-C28*	<10.0	10.0	02/13/2022	ND	204	102	200	0.128	
EXT DRO >C28-C36	<10.0	10.0	02/13/2022	ND					

Surrogate: 1-Chlorooctane *98.1 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *110 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

No Rush

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

Company Name:	Etech Environmental & Safety Solutions, Inc.	BILL TO	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	P.O. Box 301	Company:	Mewbourne
City:	~~Lovington~~ Hobbs	Attn:	Robbie Runnels
State:	NM	Address:	
Zip:	~~88260~~ 88240	City:	
Phone #:	(575) 396-2378	State:	Zip:
Fax #:	(575) 396-1429	Phone #:	
Project #:	14966	Fax #:	
Project Owner:	Robbie Runnels		
Project Name:	Red Hills Recycle Facility		
Project Location:	Mewbourne Oil Company		
Sampler Name:	Eric Mojica		

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / ~~COOL~~	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H220537																	
1	FS1@12'	C	1			√					√		2-9-22		√	√	√
2	FS2@13'	C	1			√					√		2-9-22		√	√	√
3	FS4@4'	C	1			√					√		2-9-22		√	√	√
4	NW1	C	1			√					√		2-9-22		√	√	√
5	NW2	C	1			√					√		2-9-22		√	√	√
6	NW3	C	1			√					√		2-9-22		√	√	√
7	NW4	C	1			√					√		2-9-22		√	√	√
8	EW1	C	1			√					√		2-9-22		√	√	√
9	SW1	C	1			√					√		2-10-22		√	√	√
10	SW2	C	1			√					√		2-10-22		√	√	√

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 2-9-22	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Eric Mojica	Time: 1549	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		Please email results to pm@etechenv.com.

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 3.6°C -0.5°C 3.1°C #113

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

CHECKED BY: (Initials) JO

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

February 23, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 02/17/22 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 3 (H220637-01)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.159**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	ND	400	100	400	3.92	

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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *90.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *92.9 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 4 (H220637-02)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.144**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	ND	400	100	400	3.92	

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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *88.1 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *90.7 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 5 (H220637-03)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.096**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	ND	400	100	400	3.92	

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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *89.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *92.2 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 6 (H220637-04)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.075**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	ND	400	100	400	3.92	

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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *86.7 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *91.0 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 7 (H220637-05)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	<0.050	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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	02/21/2022	ND	400	100	400	3.92	

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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *86.7 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *89.6 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 8 (H220637-06)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.057**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/21/2022	ND	400	100	400	3.92	

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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *88.5 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *91.2 %* *59.5-142*

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CARDINAL Laboratories

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Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 9 (H220637-07)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.129**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *89.7 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *92.1 %* *59.5-142*

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Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 10 (H220637-08)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.200**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *84.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *87.4 %* *59.5-142*

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Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 11 (H220637-09)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	<0.050	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *86.2 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *88.9 %* *59.5-142*

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Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 12 (H220637-10)

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	02/22/2022	ND	2.24	112	2.00	12.9	
Toluene*	**0.115**	0.050	02/22/2022	ND	2.22	111	2.00	13.5	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.13	107	2.00	13.3	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.62	110	6.00	13.4	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *90.3 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *93.1 %* *59.5-142*

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Analytical Results For:

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LANCE CRENSHAW
2617 W MARLAND
HOBBS NM, 88240
Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 13 (H220637-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.163**	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *89.2 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *91.5 %* *59.5-142*

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CARDINAL Laboratories

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:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 5 (H220637-12)

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	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.051**	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.7 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *91.1 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *94.2 %* *59.5-142*

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CARDINAL Laboratories

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:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 6 (H220637-13)

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	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.121**	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *81.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *83.5 %* *59.5-142*

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Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 7 (H220637-14)

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	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.140**	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *79.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *82.3 %* *59.5-142*

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Analytical Results For:

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LANCE CRENSHAW
2617 W MARLAND
HOBBS NM, 88240
Fax To:

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 8 (H220637-15)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.067**	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *84.5 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *87.7 %* *59.5-142*

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Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 9 (H220637-16)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.070**	0.050	02/22/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/22/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/22/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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	02/21/2022	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	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					

Surrogate: 1-Chlorooctane *88.2 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *90.8 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 10 (H220637-17)

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	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.135**	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					

Surrogate: 1-Chlorooctane *87.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *93.5 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 11 (H220637-18)

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	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.116**	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					

Surrogate: 1-Chlorooctane *87.3 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *89.7 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 12 (H220637-19)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.087**	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/21/2022	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	02/22/2022	ND	232	116	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/22/2022	ND	198	99.0	200	1.08	
EXT DRO >C28-C36	<10.0	10.0	02/22/2022	ND					

Surrogate: 1-Chlorooctane *87.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *91.5 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/17/2022	Sampling Date:	02/17/2022
Reported:	02/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NW 13 (H220637-20)

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	02/23/2022	ND	2.21	110	2.00	0.242	
Toluene*	**0.169**	0.050	02/23/2022	ND	2.19	109	2.00	0.128	
Ethylbenzene*	<0.050	0.050	02/23/2022	ND	2.12	106	2.00	0.731	
Total Xylenes*	<0.150	0.150	02/23/2022	ND	6.58	110	6.00	0.649	
Total BTEX	<0.300	0.300	02/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

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	02/21/2022	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	02/21/2022	ND	206	103	200	6.49	
DRO >C10-C28*	<10.0	10.0	02/21/2022	ND	193	96.6	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	02/21/2022	ND					

Surrogate: 1-Chlorooctane *84.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *88.2 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

No Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

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

Company Name:	Etech Environmental & Safety Solutions, Inc.	BILL TO	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	P.O. Box 301	Company:	Mewbourne
City:	~~Lovington~~ Hobbs	Attn:	Robbie Runnels
State:	NM	Address:	
Zip:	~~88260~~ 88240	City:	
Phone #:	(575) 396-2378	State:	Zip:
Fax #:	(575) 396-1429	Phone #:	
Project #:	14966	Fax #:	
Project Owner:	Robbie Runnels		
Project Name:	Red Hills Recycle Facility		
Project Location:	Mewbourne Oil Company		
Sampler Name:	Eric Mojica		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE	ICE / ~~COOL~~	OTHER :	DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H220637																	
1	SW 3	C	1			✓					✓		2-17-22		✓	✓	✓
2	SW 4	C	1			✓					✓				✓	✓	✓
3	SW 5	C	1			✓					✓				✓	✓	✓
4	SW 6	C	1			✓					✓				✓	✓	✓
5	SW 7	C	1			✓					✓				✓	✓	✓
6	SW 8	C	1			✓					✓				✓	✓	✓
7	SW 9	C	1			✓					✓				✓	✓	✓
8	SW 10	C	1			✓					✓				✓	✓	✓
9	SW 11	C	1			✓					✓				✓	✓	✓
10	SW 12	C	1			✓					✓				✓	✓	✓

Relinquished By:	Date: 2-17-22	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
Eric Mojica	Time: 1635	Tamara Oldaker	Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		Please email results to pm@etechenv.com.	

Delivered By: (Circle One) 3.4° C -0.5° C
Sampler - UPS - Bus - Other: 2.9° C #113

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

FORM-006
Revision 1.0

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

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

No Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

Company Name:	Etech Environmental & Safety Solutions, Inc.	BILL TO	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	P.O. Box 301	Company:	Mewbourne
City:	~~Lovington~~ Hobbs	Attn:	Robbie Runnels
State:	NM	Address:	
Zip:	~~88260~~ 88240	City:	
Phone #:	(575) 396-2378	State:	Zip:
Fax #:	(575) 396-1429	Phone #:	
Project #:	14916	Fax #:	
Project Owner:	Robbie Runnels		
Project Name:	Red Hills Recycle Facility		
Project Location:	Mewbourne Oil Company		
Sampler Name:	Eric Mojica		

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE	ICE	~~NONE~~	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H220637																		
11	SW 13	C	1			✓					✓			2-17-22		✓	✓	✓
12	NW 5	C	1			✓					✓					✓	✓	✓
13	NW 6	C	1			✓					✓					✓	✓	✓
14	NW 7	C	1			✓					✓					✓	✓	✓
15	NW 8	C	1			✓					✓					✓	✓	✓
16	NW 9	C	1			✓					✓					✓	✓	✓
17	NW 10	C	1			✓					✓					✓	✓	✓
18	NW 11	C	1			✓					✓					✓	✓	✓
19	NW 12	C	1			✓					✓					✓	✓	✓
20	NW 13	C	1			✓					✓					✓	✓	✓

Relinquished By:	Date: 2-17-22	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Eric Mojica	Time: 1635	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		Please email results to pm@etechenv.com.

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 3.4° C -0.5° 2.9° #113

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

CHECKED BY: (Initials) T.O.

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

February 28, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 02/25/22 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 1 @ SURFACE (H220744-01)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2000**	16.0	02/26/2022	ND	400	100	400	3.92	

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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *100 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *104 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 1 @ 2' (H220744-02)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**464**	16.0	02/26/2022	ND	400	100	400	3.92	

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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *94.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *97.3 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ SURFACE (H220744-03)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1060**	16.0	02/26/2022	ND	400	100	400	3.92	

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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *97.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *102 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ 20' (H220744-04)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *98.0 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *99.6 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 3 @ SURFACE (H220744-05)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1920**	16.0	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *93.7 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *97.0 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 3 @ 14' (H220744-06)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *96.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *99.1 %* *59.5-142*

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Analytical Results For:

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LANCE CRENSHAW
2617 W MARLAND
HOBBS NM, 88240
Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 4 @ SURFACE (H220744-07)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1520**	16.0	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *110 %* *59.5-142*

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Analytical Results For:

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LANCE CRENSHAW
2617 W MARLAND
HOBBS NM, 88240
Fax To:

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 4 @ 14' (H220744-08)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *104 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *108 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 6 @ SURFACE (H220744-09)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	**98.0**	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *90.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *103 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/24/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 6 @ 2' (H220744-10)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	**13.9**	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *93.3 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *102 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 1 @ SURFACE (H220744-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *103 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *113 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 1 @ 1' (H220744-12)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	**13.7**	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *98.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *108 %* *59.5-142*

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Analytical Results For:

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LANCE CRENSHAW
2617 W MARLAND
HOBBS NM, 88240
Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 2 @ SURFACE (H220744-13)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *110 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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2617 W MARLAND
HOBBS NM, 88240
Fax To:

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 2 @ 1' (H220744-14)

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	02/25/2022	ND	2.11	106	2.00	1.71	
Toluene*	<0.050	0.050	02/25/2022	ND	2.09	105	2.00	2.34	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.01	101	2.00	2.04	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.21	103	6.00	2.56	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	177	88.5	200	0.407	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	193	96.7	200	1.36	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *107 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *118 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 3 @ SURFACE (H220744-15)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *125 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *127 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: NH 3 @ 1' (H220744-16)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/25/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/25/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/25/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *124 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *127 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 1 @ SURFACE (H220744-17)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	02/26/2022	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	02/25/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/25/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/25/2022	ND					

Surrogate: 1-Chlorooctane *120 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *121 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 1 @ 1' (H220744-18)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *123 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *125 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 2 @ SURFACE (H220744-19)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *108 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *109 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EH 2 @ 1' (H220744-20)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *118 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *119 %* *59.5-142*

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CARDINAL Laboratories

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:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 1 @ SURFACE (H220744-21)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *120 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *122 %* *59.5-142*

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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:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 1 @ 1' (H220744-22)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *126 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *127 %* *59.5-142*

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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:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 2 @ SURFACE (H220744-23)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *123 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *125 %* *59.5-142*

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Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 2 @ 1' (H220744-24)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *122 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *125 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 3 @ SURFACE (H220744-25)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *125 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *131 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SH 3 @ 1' (H220744-26)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *121 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *124 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 1 @ SURFACE (H220744-27)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *118 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *121 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 1 @ 1' (H220744-28)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *113 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *116 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 2 @ SURFACE (H220744-29)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *112 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *114 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/25/2022	Sampling Date:	02/25/2022
Reported:	02/28/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WH 2 @ 1' (H220744-30)

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	02/26/2022	ND	2.11	106	2.00	2.58	
Toluene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.29	
Ethylbenzene*	<0.050	0.050	02/26/2022	ND	2.08	104	2.00	2.69	
Total Xylenes*	<0.150	0.150	02/26/2022	ND	6.39	107	6.00	3.21	
Total BTEX	<0.300	0.300	02/26/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	02/26/2022	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	02/26/2022	ND	223	112	200	3.17	
DRO >C10-C28*	<10.0	10.0	02/26/2022	ND	257	129	200	15.7	
EXT DRO >C28-C36	<10.0	10.0	02/26/2022	ND					

Surrogate: 1-Chlorooctane *111 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *112 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Rush

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 3

Company Name:	Etech Environmental & Safety Solutions, Inc.	BILL TO	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	P.O. Box 301	Company:	Mewbourne
City:	~~Levington~~ Hobbs State: NM Zip: ~~88260~~ 88240	Attn:	Robbie Runnels
Phone #:	(575) 396-2378 Fax #: (575) 396-1429	Address:	
Project #:	14966 Project Owner: Robbie Runnels	City:	
Project Name:	Red Hills Recycle Facility	State: Zip:	
Project Location:	Mewbourne Oil Company	Phone #:	
Sampler Name:	Eric Mojica	Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE	ICE / ~~COOL~~	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H220744																	
1	SP 1 @ Surf.	G	1			✓					✓		2-24-22		✓	✓	✓
2	SP 1 @ 2'	G	1			✓					✓				✓	✓	✓
3	SP 2 @ Surf.	G	1			✓					✓				✓	✓	✓
4	SP 2 @ 20'	G	1			✓					✓				✓	✓	✓
5	SP 3 @ Surf.	G	1			✓					✓				✓	✓	✓
6	SP 3 @ 14'	G	1			✓					✓				✓	✓	✓
7	SP 4 @ Surf.	G	1			✓					✓				✓	✓	✓
8	SP 4 @ 14'	G	1			✓					✓				✓	✓	✓
9	SP 6 @ Surf.	G	1			✓					✓				✓	✓	✓
10	SP 6 @ 2'	G	1			✓					✓				✓	✓	✓

Relinquished By:	Date: 2-24-22 Time: 1315	Received By:	Samara Oldaker
Eric Mojica			
Relinquished By:	Date: Time:	Received By:	

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

Please email results to pm@etechenv.com.

Delivered By: (Circle One) 3.1°C -0.5°C 2.6°C #113
Sampler - UPS - Bus - Other:

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

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Revision 1.0

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

Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 3

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

Company Name: Etech Environmental & Safety Solutions, Inc.
Project Manager: Lance Crenshaw
Address: P.O. Box 301
City: ~~Lovington~~ Hobbs State: NM Zip: ~~88260~~ 88240
Phone #: (575) 396-2378 Fax #: (575) 396-1429
Project #: 14966 Project Owner: Robbie Runnels
Project Name: Red Hills Recycle Facility
Project Location: Mewbourne Oil Company
Sampler Name: Eric Mojica

BILL TO
P.O. #:
Company: Mewbourne
Attn: Robbie Runnels
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE	ICE / ~~COOL~~	OTHER	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H220744																	
11	NH 1 Surf.	G	1			✓					✓		2-25-22		✓	✓	✓
12	NH 1 1'	G	1			✓					✓				✓	✓	✓
13	NH 2 Surf.	G	1			✓					✓				✓	✓	✓
14	NH 2 1'	G	1			✓					✓				✓	✓	✓
15	NH 3 Surf.	G	1			✓					✓				✓	✓	✓
16	NH 3 1'	G	1			✓					✓				✓	✓	✓
17	EH 1 Surf.	G	1			✓					✓				✓	✓	✓
18	EH 1 1'	G	1			✓					✓				✓	✓	✓
19	EH 2 Surf.	G	1			✓					✓				✓	✓	✓
20	EH 2 1'	G	1			✓					✓				✓	✓	✓

Relinquished By: Eric Mojica Date: 2-25-22 Time: 1315 Received By: Tamara Oldaker
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 3.1°C -0.5°C 2.6°C #113

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

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

Please email results to pm@etechenv.com.

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Revision 1.0

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 of 3

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

Company Name:	Etech Environmental & Safety Solutions, Inc.	BILL TO	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	P.O. Box 301	Company:	Mewbourne
City:	~~Lovington~~ Hobbs	Attn:	Robbie Runnels
State:	NM	Address:	
Zip:	~~88260~~ 88240	City:	
Phone #:	(575) 396-2378	State:	Zip:
Fax #:	(575) 396-1429	Phone #:	
Project #:	14966	Fax #:	
Project Owner:	Robbie Runnels		
Project Name:	Red Hills Recycle Facility		
Project Location:	Mewbourne Oil Company		
Sampler Name:	Eric Mojica		

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE	ICE / ~~COOL~~	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H220744																	
21	SH 1 @ Surf.	G	1			✓					✓		2-25-22		✓	✓	✓
22	SH 1 @ 1'	G	1			✓					✓				✓	✓	✓
23	SH 2 @ Surf.	G	1			✓					✓				✓	✓	✓
24	SH 2 @ 1'	G	1			✓					✓				✓	✓	✓
25	SH 3 @ Surf.	G	1			✓					✓				✓	✓	✓
26	SH 3 @ 1'	G	1			✓					✓				✓	✓	✓
27	WH 1 @ Surf.	G	1			✓					✓				✓	✓	✓
28	WH 1 @ 1'	G	1			✓					✓				✓	✓	✓
29	WH 2 @ Surf.	G	1			✓					✓				✓	✓	✓
30	WH 2 @ 1'	G	1			✓					✓				✓	✓	✓

Relinquished By:	Date: 2.25.22	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Eric Mojica	Time: 1315	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		Please email results to pm@etechenv.com.

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 3.1 C -0.5 C 2.6 C #113

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

CHECKED BY: (Initials) TO

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CARDINAL Laboratories

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

March 02, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/01/22 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/01/2022	Sampling Date:	03/01/2022
Reported:	03/02/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ 21' (H220792-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	03/02/2022	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Etech Environmental & Safety Solutions, Inc.	BILL TO	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	P.O. Box 301	Company:	Mewbourne
City:	~~Levington~~ Hobbs	Attn:	Robbie Runnels
State:	NM	Address:	
Zip:	~~88260~~ 88240	City:	
Phone #:	(575) 396-2378	State:	Zip:
Fax #:	(575) 396-1429	Phone #:	
Project #:	14966	Fax #:	
Project Owner:			
Project Name:	Red Hills Recycle Facility		
Project Location:	Mewbourne Oil Company		
Sampler Name:	Eric Mojica		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / ~~COOL~~	OTHER :	DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)										
H220792																											
1	SP20 21'	G	1			✓					✓		3-1-22		✓												

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 3-1-22	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Eric Moj	Time: 1550	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		Please email results to pm@etechenv.com.

Delivered By: (Circle One) 3.7° C-0.5° 3.2° #113
Sampler - UPS - Bus - Other:

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

CHECKED BY: (Initials) T.O.

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

March 15, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/10/22 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 1 - A (H220978-01)

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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane	*100 %*	*66.9-136*
Surrogate: 1-Chlorooctadecane	*115 %*	*59.5-142*

Sample ID: NW 14 (H220978-02)

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	03/14/2022	ND	1.94	97.2	2.00	9.42	
Toluene*	<0.050	0.050	03/14/2022	ND	1.94	96.9	2.00	9.85	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.94	96.8	2.00	9.98	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	6.01	100	6.00	8.99	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID	*104 %*	*69.9-140*

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	03/14/2022	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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 14 (H220978-02)

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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane	*95.1 %*	*66.9-136*
Surrogate: 1-Chlorooctadecane	*111 %*	*59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 15 (H220978-03)

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	03/14/2022	ND	1.94	97.2	2.00	9.42	
Toluene*	<0.050	0.050	03/14/2022	ND	1.94	96.9	2.00	9.85	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.94	96.8	2.00	9.98	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	6.01	100	6.00	8.99	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	03/14/2022	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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane *95.2 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *109 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 16 (H220978-04)

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	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	03/14/2022	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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane *106 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *122 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 17 (H220978-05)

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	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	03/14/2022	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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane *110 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *127 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: NW 18 (H220978-06)

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	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	03/14/2022	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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane *99.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *115 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 14 (H220978-07)

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	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	03/14/2022	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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *124 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/09/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 15 (H220978-08)

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	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	03/14/2022	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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane *106 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *123 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/10/2022	Sampling Date:	03/10/2022
Reported:	03/15/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Jodi Henson
Project Location:	MEWBOURNE		

Sample ID: SW 16 (H220978-09)

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	03/14/2022	ND	1.93	96.5	2.00	9.05	
Toluene*	<0.050	0.050	03/14/2022	ND	1.91	95.6	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/14/2022	ND	1.93	96.5	2.00	8.77	
Total Xylenes*	<0.150	0.150	03/14/2022	ND	5.99	99.8	6.00	8.65	
Total BTEX	<0.300	0.300	03/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

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	03/14/2022	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	03/15/2022	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	03/15/2022	ND	214	107	200	4.58	
EXT DRO >C28-C36	<10.0	10.0	03/15/2022	ND					

Surrogate: 1-Chlorooctane *87.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *99.7 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

NoRush

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Etech Environmental & Safety Solutions, Inc.
Project Manager:	Lance Crenshaw
Address:	P.O. Box 301
City:	~~Lovington~~ State: NM Zip: ~~88260~~
Phone #:	(575) 396-2378 Fax #: (575) 396-1429
Project #:	14966 Project Owner: Robbie Runnels
Project Name:	Red Hills Recycle Facility
Project Location:	Mewbourne Oil Company
Sampler Name:	Eric Mojica

BILL TO

P.O. #:	
Company:	Mewbourne
Attn:	Robbie Runnels
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE	ICE ~~/ COOL~~	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H220978																	
1	SW1-A	G	1			✓					✓		3-9-22			✓	
2	NW14	G	1			✓					✓				✓	✓	✓
3	NW15	G	1			✓					✓				✓	✓	✓
4	NW16	G	1			✓					✓				✓	✓	✓
5	NW17	G	1			✓					✓				✓	✓	✓
6	NW18	G	1			✓					✓				✓	✓	✓
7	SW14	G	1			✓					✓				✓	✓	✓
8	SW15	G	1			✓					✓				✓	✓	✓
9	SW16	G	1			✓					✓		3-10-22		✓	✓	✓

linquished By:	Date: 3-9-22	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Eric Mojica	Time: 15:25	Jodie Henson	Fax Result: ☐ Yes ☐ No Add'l Fax #:
linquished By:	Date:	Received By:	REMARKS:
	Time:		

elivered By: (Circle One) 3.6°C -3 3.1°C

mpler - UPS - Bus - Other: #113

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

CHECKED BY: (Initials)

Please email results to pm@etechenv.com.

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

March 22, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/16/22 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 2 (H221056-01)

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	03/21/2022	ND	2.10	105	2.00	1.78	
Toluene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.73	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.01	101	2.00	1.44	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.19	103	6.00	0.540	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	03/21/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2022	ND	202	101	200	5.19	
DRO >C10-C28*	<10.0	10.0	03/19/2022	ND	238	119	200	16.7	
EXT DRO >C28-C36	<10.0	10.0	03/19/2022	ND					

Surrogate: 1-Chlorooctane *120 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *149 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 3 (H221056-02)

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	03/21/2022	ND	2.10	105	2.00	1.78	
Toluene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.73	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.01	101	2.00	1.44	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.19	103	6.00	0.540	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	03/21/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS **S-04**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2022	ND	202	101	200	5.19	
DRO >C10-C28*	<10.0	10.0	03/19/2022	ND	238	119	200	16.7	
EXT DRO >C28-C36	<10.0	10.0	03/19/2022	ND					

Surrogate: 1-Chlorooctane *121 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *150 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 4 (H221056-03)

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	03/21/2022	ND	2.10	105	2.00	1.78	
Toluene*	<0.050	0.050	03/21/2022	ND	2.10	105	2.00	1.73	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.01	101	2.00	1.44	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.19	103	6.00	0.540	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	03/21/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/19/2022	ND	202	101	200	5.19	
DRO >C10-C28*	<10.0	10.0	03/19/2022	ND	238	119	200	16.7	
EXT DRO >C28-C36	<10.0	10.0	03/19/2022	ND					

Surrogate: 1-Chlorooctane *117 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *146 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 5 (H221056-04)

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	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	03/21/2022	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	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					

Surrogate: 1-Chlorooctane *94.1 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *106 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/16/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: EW 6 (H221056-05)

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	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	03/21/2022	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	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					

Surrogate: 1-Chlorooctane *93.2 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *103 %* *59.5-142*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WW 6 (H221056-06)

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	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	03/21/2022	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	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					

Surrogate: 1-Chlorooctane *92.5 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *107 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WW 7 (H221056-07)

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	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	03/21/2022	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	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					

Surrogate: 1-Chlorooctane *97.0 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *112 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: WW 8 (H221056-08)

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	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	03/21/2022	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	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					

Surrogate: 1-Chlorooctane *78.7 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *83.0 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/15/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 17 (H221056-09)

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	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	03/21/2022	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	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					

Surrogate: 1-Chlorooctane *76.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *81.4 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/16/2022	Sampling Date:	03/16/2022
Reported:	03/22/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SW 18 (H221056-10)

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	03/21/2022	ND	2.13	107	2.00	2.29	
Toluene*	<0.050	0.050	03/21/2022	ND	2.12	106	2.00	2.13	
Ethylbenzene*	<0.050	0.050	03/21/2022	ND	2.11	106	2.00	1.64	
Total Xylenes*	<0.150	0.150	03/21/2022	ND	6.49	108	6.00	1.15	
Total BTEX	<0.300	0.300	03/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**544**	16.0	03/21/2022	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	03/21/2022	ND	208	104	200	2.41	
DRO >C10-C28*	<10.0	10.0	03/21/2022	ND	199	99.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/21/2022	ND					

Surrogate: 1-Chlorooctane *76.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *79.2 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

No Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Etech Environmental & Safety Solutions, Inc.	BILL TO	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	P.O. Box 301	Company:	Mewbourne
City:	~~Lovington~~ Hobbs	Attn:	Robbie Runnels
State:	NM	Address:	
Zip:	~~88260~~ 88240	City:	
Phone #:	(575) 396-2378	State:	Zip:
Fax #:	(575) 396-1429	Phone #:	
Project #:	14966	Fax #:	
Project Owner:	Robbie Runnels		
Project Name:	Red Hills Recycle Facility		
Project Location:	Mewbourne Oil Company		
Sampler Name:	Eric Mojica		

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE	ICE / ~~COOL~~	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H221056																	
1	EW 2	C	1			✓					✓		3-15-22		✓	✓	✓
2	EW 3	C	1			✓					✓				✓	✓	✓
3	EW 4	C	1			✓					✓				✓	✓	✓
4	EW 5	C	1			✓					✓				✓	✓	✓
5	EW 6	C	1			✓					✓		3-16-22		✓	✓	✓
6	WW 6	C	1			✓					✓		3-15-22		✓	✓	✓
7	WW 7	C	1			✓					✓				✓	✓	✓
8	WW 8	C	1			✓					✓				✓	✓	✓
9	SW 17	C	1			✓					✓				✓	✓	✓
10	SW 18	C	1			✓					✓		3-16-22		✓	✓	✓

Relinquished By:	Date: 3-16-22	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
Relinquished By:	Time: 1550	Received By:	Fax Result: ☐ Yes ☐ No	Add'l Fax #:
	Date:		REMARKS:	
	Time:		Please email results to pm@etechenv.com.	

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.9c (-0.5c) 5.4c #113

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

CHECKED BY: (Initials)

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

March 23, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/18/22 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 1 @ SURFACE (H221096-01)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**20800**	16.0	03/21/2022	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	**29.8**	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	**22.6**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *91.3 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *92.9 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 1 @ 1' (H221096-02)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	03/21/2022	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *98.6 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *100 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 2 @ SURFACE (H221096-03)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**26000**	16.0	03/21/2022	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	**1040**	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	**928**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *97.4 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *129 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 2 @ 1' (H221096-04)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	03/21/2022	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	**18.4**	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	**18.2**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *107 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *108 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 3 @ SURFACE (H221096-05)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32800**	16.0	03/21/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	**4700**	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	**1260**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *255 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 3 @ 8' (H221096-06)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**528**	16.0	03/21/2022	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *93.1 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *94.0 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 4 @ SURFACE (H221096-07)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**54000**	16.0	03/21/2022	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	**232**	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	**104**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *97.9 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *121 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 4 @ 4' (H221096-08)

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	03/22/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/22/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	03/21/2022	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *90.2 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *91.8 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 5 @ SURFACE (H221096-09)

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	03/23/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/23/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/23/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/23/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1330**	16.0	03/21/2022	ND	432	108	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	03/22/2022	ND	180	90.1	200	3.49	
DRO >C10-C28*	**68.4**	10.0	03/22/2022	ND	206	103	200	2.70	
EXT DRO >C28-C36	**27.0**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *111 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/18/2022	Sampling Date:	03/18/2022
Reported:	03/23/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 5 @ 8' (H221096-10)

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	03/23/2022	ND	1.83	91.4	2.00	6.03	
Toluene*	<0.050	0.050	03/23/2022	ND	1.92	96.1	2.00	6.05	
Ethylbenzene*	<0.050	0.050	03/23/2022	ND	1.88	93.8	2.00	5.60	
Total Xylenes*	<0.150	0.150	03/23/2022	ND	5.86	97.6	6.00	5.13	
Total BTEX	<0.300	0.300	03/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	03/21/2022	ND	432	108	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	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *109 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *111 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

No Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Lance Crenshaw	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	Mewbourne
City:	~~Lovington~~ Hobbs **State:** NM **Zip:** ~~88260~~ 88240	**Attn:**	Robbie Runnels
Phone #:	(575) 396-2378 **Fax #:** (575) 396-1429	**Address:**	
Project #:	14966 **Project Owner:** Robbie Runnels	**City:**	
Project Name:	Red Hills Recycle Facility	**State:** **Zip:**	
Project Location:	Mewbourne Oil Company	**Phone #:**	
Sampler Name:	Eric Mojica	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / ~~COOL~~	OTHER :	DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
#221096																	
1	DSP 1 eSurf.	G	1			✓					✓		3.18.22		✓	✓	✓
2	DSP 1 e 1'	G	1			✓					✓				✓	✓	✓
3	DSP 2 eSurf.	G	1			✓					✓				✓	✓	✓
4	DSP 2 e 1'	G	1			✓					✓				✓	✓	✓
5	DSP 3 eSurf.	G	1			✓					✓				✓	✓	✓
6	DSP 3 e 8'	G	1			✓					✓				✓	✓	✓
7	DSP 4 eSurf.	G	1			✓					✓				✓	✓	✓
8	DSP 4 e 4'	G	1			✓					✓				✓	✓	✓
9	DSP 5 eSurf.	G	1			✓					✓				✓	✓	✓
10	DSP 5 e 8'	G	1			✓					✓				✓	✓	✓

Relinquished By: Eric Mojica	**Date:** 3.18.22 **Time:** 1525	**Received By:** Tamara Oldaker	**Phone Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**Fax Result:** ☐ Yes ☐ No **Add'l Fax #:**
			REMARKS: Please email results to pm@etechenv.com.

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.7°C C-0.5°C 5.2°C #113

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

CHECKED BY: (Initials) T.O.

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

March 24, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS RECYCLE FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 03/21/22 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 6 @ SURFACE (H221108-01)

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	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**93600**	16.0	03/22/2022	ND	432	108	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	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	**71.4**	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	**43.3**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *115 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *123 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 6 @ 10' (H221108-02)

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	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**528**	16.0	03/22/2022	ND	432	108	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	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	<10.0	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	<10.0	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *117 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *120 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 7 @ SURFACE (H221108-03)

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	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**26000**	16.0	03/22/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2022	ND	197	98.5	200	7.82	
DRO >C10-C28*	**689**	10.0	03/22/2022	ND	197	98.3	200	8.07	
EXT DRO >C28-C36	**456**	10.0	03/22/2022	ND					

Surrogate: 1-Chlorooctane *111 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *144 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 7 @ 14' (H221108-04)

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	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	03/22/2022	ND	432	108	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	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					

Surrogate: 1-Chlorooctane *113 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *119 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 8 @ SURFACE (H221108-05)

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	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**78400**	16.0	03/22/2022	ND	432	108	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	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	**11.0**	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					

Surrogate: 1-Chlorooctane *121 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *130 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 8 @ 8' (H221108-06)

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	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	03/22/2022	ND	432	108	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	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					

Surrogate: 1-Chlorooctane *113 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *120 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 9 @ SURFACE (H221108-07)

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	03/22/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/22/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/22/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/22/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**49600**	16.0	03/22/2022	ND	432	108	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	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					

Surrogate: 1-Chlorooctane *125 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *134 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	03/21/2022	Sampling Date:	03/21/2022
Reported:	03/24/2022	Sampling Type:	Soil
Project Name:	RED HILLS RECYCLE FACILITY	Sampling Condition:	Cool & Intact
Project Number:	14966	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: DSP 9 @ 8' (H221108-08)

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	03/24/2022	ND	1.88	93.8	2.00	1.85	
Toluene*	<0.050	0.050	03/24/2022	ND	1.97	98.5	2.00	0.489	
Ethylbenzene*	<0.050	0.050	03/24/2022	ND	1.99	99.6	2.00	1.90	
Total Xylenes*	<0.150	0.150	03/24/2022	ND	6.17	103	6.00	1.61	
Total BTEX	<0.300	0.300	03/24/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

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	03/22/2022	ND	432	108	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	03/23/2022	ND	202	101	200	5.65	
DRO >C10-C28*	<10.0	10.0	03/23/2022	ND	206	103	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	03/23/2022	ND					

Surrogate: 1-Chlorooctane *111 %* *66.9-136*

Surrogate: 1-Chlorooctadecane *118 %* *59.5-142*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

No Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Etech Environmental & Safety Solutions, Inc.
Project Manager: Lance Crenshaw
Address: P.O. Box 301
City: ~~Lovington~~ Hobbs State: NM Zip: ~~88260~~ 88240
Phone #: (575) 396-2378 Fax #: (575) 396-1429
Project #: 14966 Project Owner: Robbie Runels
Project Name: Red Hills Recycle Facility
Project Location: Mewbourne Oil Company
Sampler Name: Eric Mojica

BILL TO
P.O. #:
Company: Mewbourne
Attn: Robbie Runels
Address:
City:
State: Zip:
Phone #:
Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE	ICE ~~NONE~~	OTHER:	SAMPLING DATE	TIME	ANALYSIS REQUEST: Chloride	TPH (8015M)	BTEX (8021B)
H221108																	
1	DSP6eSurf.	G	1			✓					✓		3-21-22		✓	✓	✓
2	DSP6e10'	G	1			✓					✓				✓	✓	✓
3	DSP7eSurf.	G	1			✓					✓				✓	✓	✓
4	DSP7e14'	G	1			✓					✓				✓	✓	✓
5	DSP8eSurf.	G	1			✓					✓				✓	✓	✓
6	DSP8e8'	G	1			✓					✓				✓	✓	✓
7	DSP9eSurf.	G	1			✓					✓				✓	✓	✓
8	DSP9e8'	G	1			✓					✓				✓	✓	✓

Relinquished By: Eric Mojica Date: 3-21-22 Time: 1450 Received By: Jamara Oldaker
Relinquished By: Date: Time: Received By:

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

Please email results to pm@etechenv.com.

Delivered By: (Circle One) 3.8° C -0.5° = 3.3° #113
Sampler - UPS - Bus - Other:

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

FORM-006
Revision 1.0

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

Appendix G
Regulatory Correspondence

From: Ben Arguijo
To: "ocd.enviro@state.nm.us"
Cc: "ocd.environmental@state.nm.us"; Lance Crenshaw; "Robbie Runnels"; "Connor Walker"; "Hamlet, Robert, EMNRD"
Subject: RE: nAPP2124632147 - Red Hills Recycle Pond Facility - Extension Request
Date: Thursday, January 27, 2022 3:15:00 PM
Attachments: image001.png

Dear NMOCD Environmental Bureau,

I am writing to check on the status of the extension request below regarding the work plan for the Red Hills Recycle Pond Facility release (nAPP2124632147). On behalf of Mewbourne Oil Company, I would also like to take this opportunity to request an additional extension until March 31, 2022, to allow Etech time to complete the site assessment, delineation of the release, and to devise an acceptable remediation proposal.

If you have any questions or need any additional information, please do not hesitate to contact me or Lance Crenshaw (lance@etechenv.com).

Thank you for your time and consideration.

Respectfully,
Ben J. Arguijo

Ben J. Arguijo
Project Manager

eTECH Environmental & Safety Solutions, Inc.
2507 79th St., Unit A
Lubbock, TX 79423-2211
(432) 813-1592

From: Ben Arguijo
Sent: Wednesday, December 22, 2021 5:08 PM
To: 'ocd.enviro@state.nm.us' <ocd.enviro@state.nm.us>
Cc: 'ocd.environmental@state.nm.us' <ocd.environmental@state.nm.us>; Lance Crenshaw <lance@etechenv.com>; 'Robbie Runnels' <rrunnels@mewbourne.com>
Subject: nAPP2124632147 - Red Hills Recycle Pond Facility - Extension Request

Dear NMOCD Environmental Bureau,

Mewbourne Oil Company (Mewbourne) contracted Etech Environmental & Safety Solutions, Inc. (Etech), on November 29, 2021, to assume remediation activities for the release known as the Red Hills Recycle Pond Facility (NMOCD Incident #nAPP2124632147) located in Lea County. Pursuant to NMOCD regulations, a work plan or closure report was due for the release on November 28, 2021.

An initial site assessment was performed by a third-party environmental contractor that is no longer affiliated with the site. Based on a review of the field data from that site assessment, the vertical extent of chloride contamination was adequately defined, but additional delineation is required to determine both the horizontal and vertical extent of TPH, BTEX, and chloride.

Due to our current workload and fluctuations in staffing levels as people have taken leave from work to spend time with loved ones this holiday season, Etech has not yet had an opportunity to conduct a complete delineation event at the site. In consideration of this, Etech, on behalf of Mewbourne, would like to request an extension until January 31, 2022, in order to allow us time to conduct a proper site assessment, fully delineate the release, and devise an appropriate remediation strategy to advance the site to an NMOCD-approved closure.

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.

Respectfully,
Ben J. Arguijo

Ben J. Arguijo
Project Manager

ETECH
Environmental & Safety Solutions, Inc.
2507 79th St., Unit A
Lubbock, TX 79423-2211
(432) 813-1592

From: Hamlet, Robert, EMNRD
To: Ben Arguijo
Cc: Lance Crenshaw; Robbie Runnels; Connor Walker; Bratcher, Mike, EMNRD; Hensley, Chad, EMNRD; Velez, Nelson, EMNRD; Nobui, Jennifer, EMNRD
Subject: (Extension Approval) RE: nAPP2124632147 - Red Hills Recycle Pond Facility
Date: Friday, January 28, 2022 10:42:34 AM
Attachments: image003.png

RE: Incident #**NAPP2124632147**

Ben,

Your request for an extension to **March 31st, 2022** is approved.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Ben Arguijo <bena@etechenv.com>
Sent: Thursday, January 27, 2022 2:17 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: ocd.environmental@state.nm.us; Lance Crenshaw <lance@etechenv.com>; Robbie Runnels <rrunnels@mewbourne.com>; Connor Walker <cwalker@mewbourne.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: [EXTERNAL] RE: nAPP2124632147 - Red Hills Recycle Pond Facility - Extension Request

Dear NMOCD Environmental Bureau,

I am writing to check on the status of the extension request below regarding the work plan for the Red Hills Recycle Pond Facility release (nAPP2124632147). On behalf of Mewbourne Oil Company, I would also like to take this opportunity to request an additional extension until March 31, 2022, to allow Etech time to complete the site assessment, delineation of the release, and to devise an acceptable remediation proposal.

If you have any questions or need any additional information, please do not hesitate to contact me or Lance Crenshaw (lance@etechenv.com).

Thank you for your time and consideration.

Respectfully,
Ben J. Arguijo

Ben J. Arguijo
Project Manager

eTECH Environmental & Safety Solutions, Inc.
2507 79th St., Unit A
Lubbock, TX 79423-2211
(432) 813-1592

From: Ben Arguijo
Sent: Wednesday, December 22, 2021 5:08 PM
To: 'ocd.enviro@state.nm.us' <ocd.enviro@state.nm.us>
Cc: 'ocd.environmental@state.nm.us' <ocd.environmental@state.nm.us>; Lance Crenshaw <lance@etechenv.com>; 'Robbie Runnels' <rrunnels@mewbourne.com>
Subject: nAPP2124632147 - Red Hills Recycle Pond Facility - Extension Request

Dear NMOCD Environmental Bureau,

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Due to our current workload and fluctuations in staffing levels as people have taken leave from work to spend time with loved ones this holiday season, Etech has not yet had an opportunity to conduct a complete delineation event at the site. In consideration of this, Etech, on behalf of Mewbourne, would like to request an extension until January 31, 2022, in order to allow us time to conduct a proper site assessment, fully delineate the release, and devise an appropriate remediation strategy to advance the site to an NMOCD-approved closure.

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Thank you for your time and consideration.

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Ben J. Arguijo

Ben J. Arguijo
Project Manager

2507 79th St., Unit A
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(432) 813-1592

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

QUESTIONS

Action 352919

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 352919
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2124632147**
Incident Name	**NAPP2124632147 RHWMS - RED HILLS RECYCLE FACILITY @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Deferral Request Received**
Incident Facility	**[fOY1720942193] Mewbourne Red Hills Recycling Facility**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	RHWMS - RED HILLS RECYCLE FACILITY
Date Release Discovered	08/30/2021
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Overflow - Tank, Pit, Etc. | Tank (Any) | Produced Water | Released: 0 BBL (Unknown Released Amount) | Recovered: 1,420 BBL | Lost: -1,420 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 352919
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more;** **(?) reported amounts release resulting in negative volume.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 06/11/2024

District I
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QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 352919
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Estimate or Other
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1000 (ft.) and ½ (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	93600
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	5960
GRO+DRO (EPA SW-846 Method 8015M)	4700
BTEX (EPA SW-846 Method 8021B or 8260B)	0.3
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	02/08/2022
On what date will (or did) the final sampling or liner inspection occur	02/09/2022
On what date will (or was) the remediation complete(d)	06/21/2022
What is the estimated surface area (in square feet) that will be reclaimed	49400
What is the estimated volume (in cubic yards) that will be reclaimed	8800
What is the estimated surface area (in square feet) that will be remediated	49400
What is the estimated volume (in cubic yards) that will be remediated	12500
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 352919
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	*Not answered.*
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	Yes
In which state is the disposal taking place	Texas
What is the name of the out-of-state facility	R360 Red Bluff
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 06/11/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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District II
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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

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 352919
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	The area immediately on the pad portion between the tanks and the recycle ponds will require deconstruction of several lines that the facility uses to operate.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	9700
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	1500
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	Mewbourne Red Hills Recycling Facility [fOY1720942193]
Enter the well API (30-) on which this deferral should be granted	*Not answered.*
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 06/11/2024

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QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 352919
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	***{Unavailable.}***

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 352919

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	14744
	Action Number: 352919
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
crystal.walker	Deferral Approved. Pursuant to the NMOCD-approved Remediation Summary, Variance & Deferral Request on 05/18/2022, remediation of TPH- and/or chloride-impacted soil affected above the NMOCD Closure Criteria remaining in-situ adjacent to and/or beneath the on-site storage tanks and associated containment areas, pipes, appurtenances, and electrical facilities will be completed upon decommissioning and abandonment of the water treatment facility.	6/14/2024