Received by OCD: 6/11/2024 4:18:43 PM Form C-141 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.  $\checkmark$  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:

Page 5



### TABLE OF CONTENTS

Section

PROJECT INFORMATION.	1.0
SITE CHARACTERIZATION.	2.0
CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE	3.0
INITIAL SITE ASSESSMENT.	4.0
REMEDIATION ACTIVITIES SUMMARY	5.0
DEFERRAL	6.0
RESTORATION, RECLAMATION & RE-VEGETATION PLAN.	
LIMITATIONS.	
DISTRIBUTION.	9.0

### FIGURES

Figure 1 - Topographic MapFigure 2 - Aerial Proximity MapFigure 3A - Site & Sample Location Map (Delineation)Figure 3B - Site & Sample Location Map (Excavation)

#### TABLES

Table 1 - Concentrations of BTEX, TPH & Chloride in Soil

#### APPENDICES

- Appendix A Depth to Groundwater Information
- Appendix B Field Data & Soil Profile Logs
- Appendix C Photographic Log
- Appendix D Multimedia Exposure Assessment Model (MULTIMED) Excavation
- Appendix E Multimedia Exposure Assessment Model (MULTIMED) Deferral Area
- Appendix F Laboratory Analytical Reports
- Appendix G Regulatory Correspondence

## 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:

atitude:	32.03	397980	Longitude:	-103.675828			
			d GPS are in WGS84 forma				
Site Name:	Red Hills Re	cycle Pond Facility	Site Type:	Water Treatment Facility			
Date Release Dis		8/30/2021	API # (if applica	-			
Unit Letter	Section	Township	Range	County			
"J"	16	26S	32E	Lea			
Surface Owner:	X State	Federal Tribal	Private (Nam	e			
		Nature an	nd Volume of R	elease			
Crude Oil	Volum	e Released (bbls)		Volume Recovered (bbls)			
X Produced W	/ater Volum	e Released (bbls)	Unknown	Volume Recovered (bbls) 1,420			
		oncentration of total c in the produced water		X Yes No N/A			
Condensate	Volum	e Released (bbls)		Volume Recovered (bbls)			
Natural Gas	s Volum	e Released (Mcf)		Volume Recovered (Mcf)			
Other (desc	ribe) Volum	e/Weight Released		Volume/Weight Recovered			
Cause of Releas The tanks overf		the secondary contain	nment, and released j	produced water both on and off the location.			
		In	nitial Response				
X The source of	of the release ha	s been stopped.					
X The impacte	d area has been	secured to protect hun	nan health and the env	rironment.			
X Release mat	erials have beer	contained via the use	of berms or dikes, abs	sorbent pad, or other containment devices			
				ged 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 halfmile 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*‡
	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	600	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	100	100
215'	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).

<sup>‡</sup> 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 @ 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 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 point DSP1.

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 insitu 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)

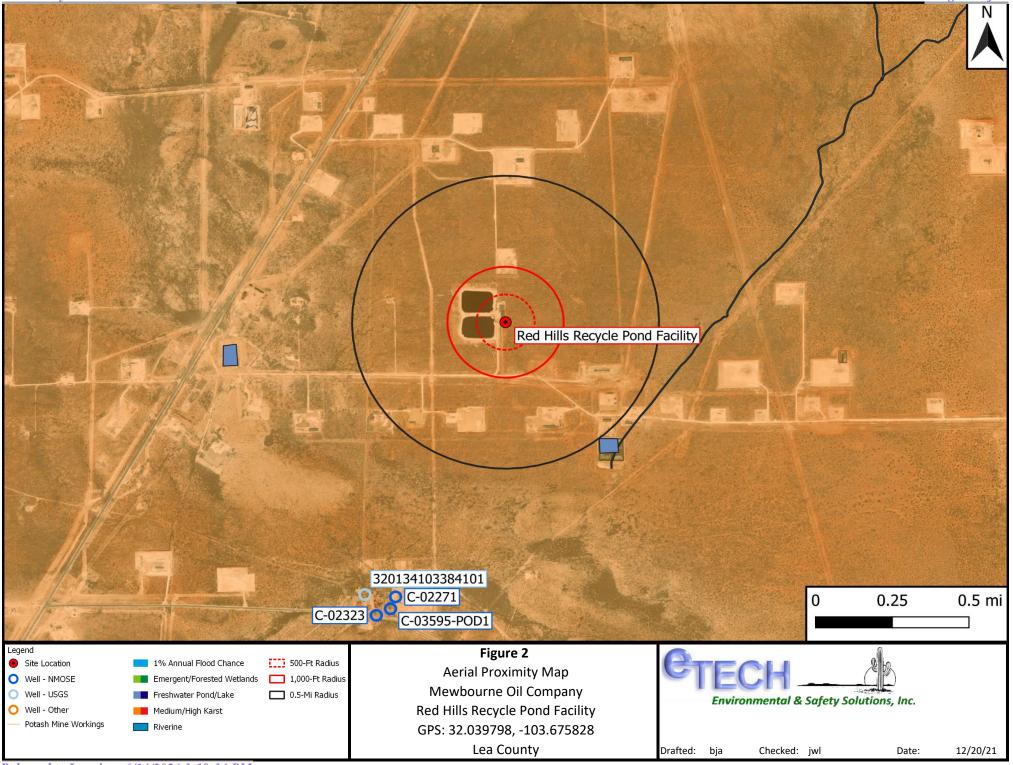
# Figure 1 Topographic Map

Received by OCD: 6/11/2024 4:18:43 PM Page 12 of 214 Re TRAIL 14 15 16 17 3161 317 Drill Hole Gravel Red Hills Recycle Pond Facility 3160 Drill Grävel Eit e to 3149 150 JEEF 3142 3171 0 -----23 22 21 20 "Sattle-axe Ranch STRIP Drill Hole® 19314 3148 NOING 0 0.25 0.5 mi 3149 Figure 1 Legend **Topographic Map** • Site Location Mewbourne Oil Company Environmental & Safety Solutions, Inc. Red Hills Recycle Pond Facility GPS: 32.039798, -103.675828 Lea County Drafted: bja Checked: jwl Date: 12/20/21

#### Released to Imaging: 6/14/2024 3:19:34 PM

# Figure 2 Aerial Proximity Map

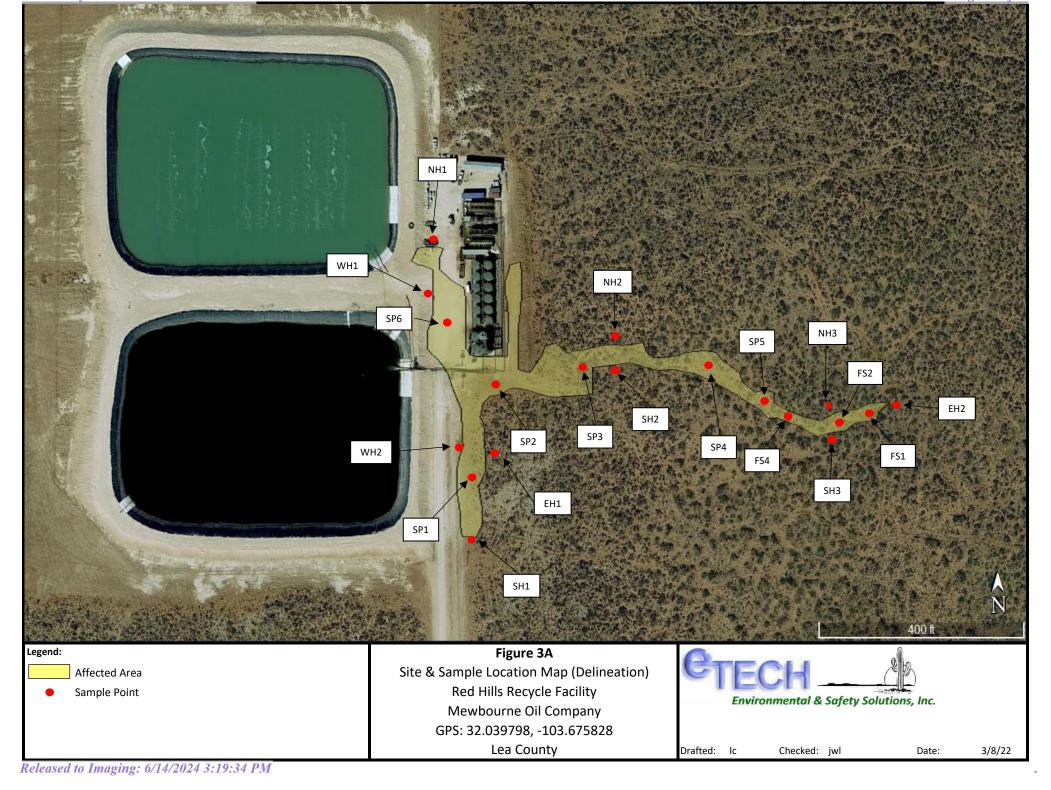
Received by OCD: 6/11/2024 4:18:43 PM



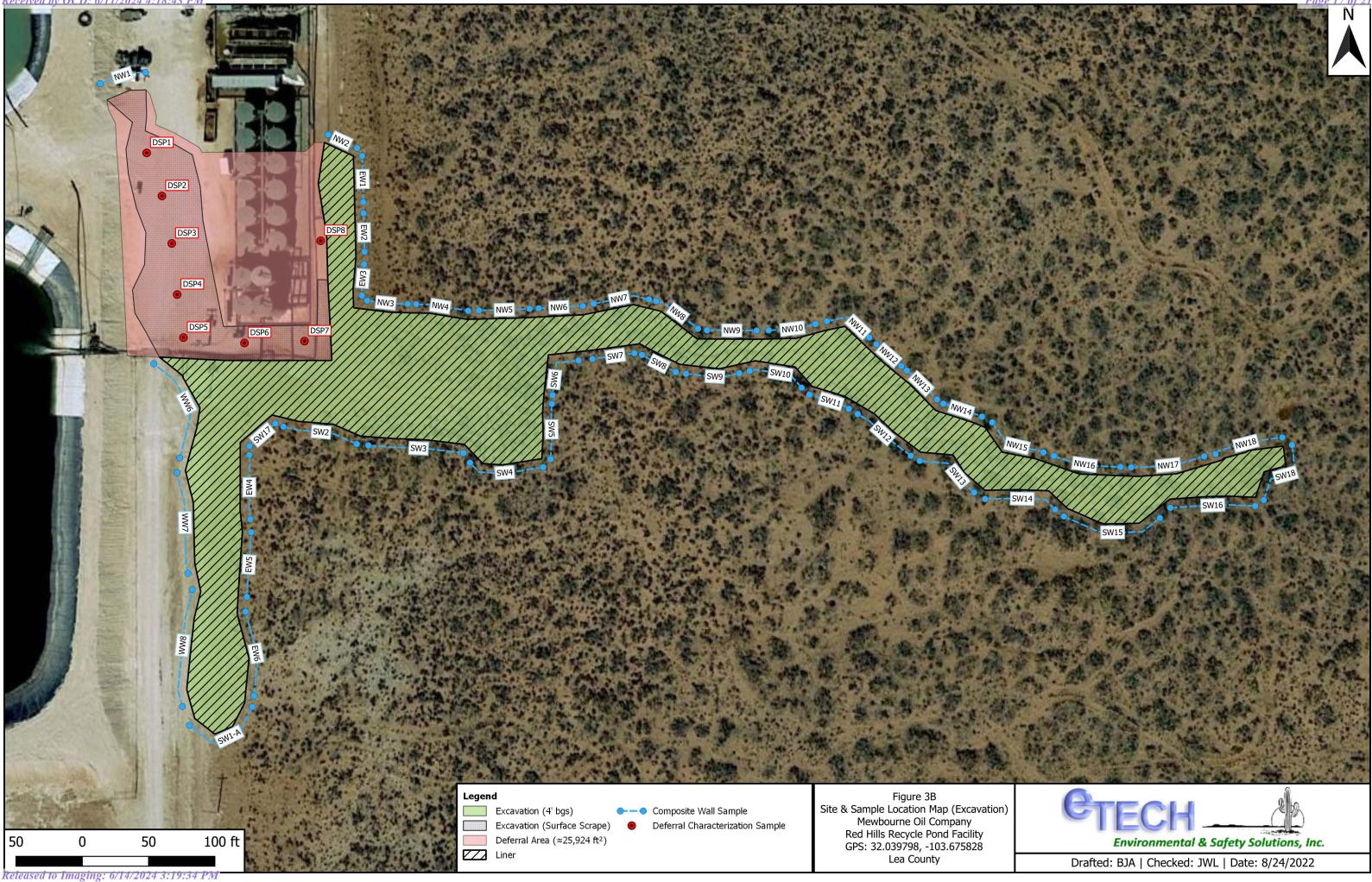
Released to Imaging: 6/14/2024 3:19:34 PM

•

# Figure 3A & 3B Site & Sample Location Maps



Received by OCD: 6/11/2024 4:18:43 PM



•

# Table 1Concentrations of BTEX, TPH & Chloride in Soil

Table 1												
			Conce				Chloride in	ı Soil				
					wbourne (	-	•					
					ills Recycl		•					
NMO	CD Classes C				D Ref. #: n	APP2124	632147			100	(00	
	CD Closure C Reclamation			10	50	-	-	-	-	100	600	
NWIOCD	Reclamation	Standard		10	50 5 8021B	-	- (N	-	-	100	600	
		<b>D</b> (1	<b>a</b> "	5 W 640	0 80215			846 8015M			4500 Cl	
Sample ID	Date	Depth (Feet)	Soil Status	Benzene	BTEX	GRO C6-C10	DRO C <sub>10</sub> -C <sub>28</sub>	DRO	ORO C <sub>28</sub> -C <sub>36</sub>	ТРН С6-С36	Chloride	
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	C <sub>6</sub> -C <sub>28</sub> (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
				Deli	neation & De							
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.

**Released to Imaging: 6/14/2024 3:19:34 PM** 

	Table 1												
			Conce		· · · · · · · · · · · · · · · · · · ·		Chloride in	ı Soil					
					wbourne (	1	·						
					ills Recycl D Ref. #: r		•						
NMO	CD Closure C	riteria		10	50	-	-	-	_	100	600		
NMOCD	Reclamation	Standard		10	50	-	-	-	-	100	600		
				SW 840	5 8021B		SW	846 8015M	Ext.		4500 Cl		
Sample ID	Date	Depth (Feet)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C6-C36 (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	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.

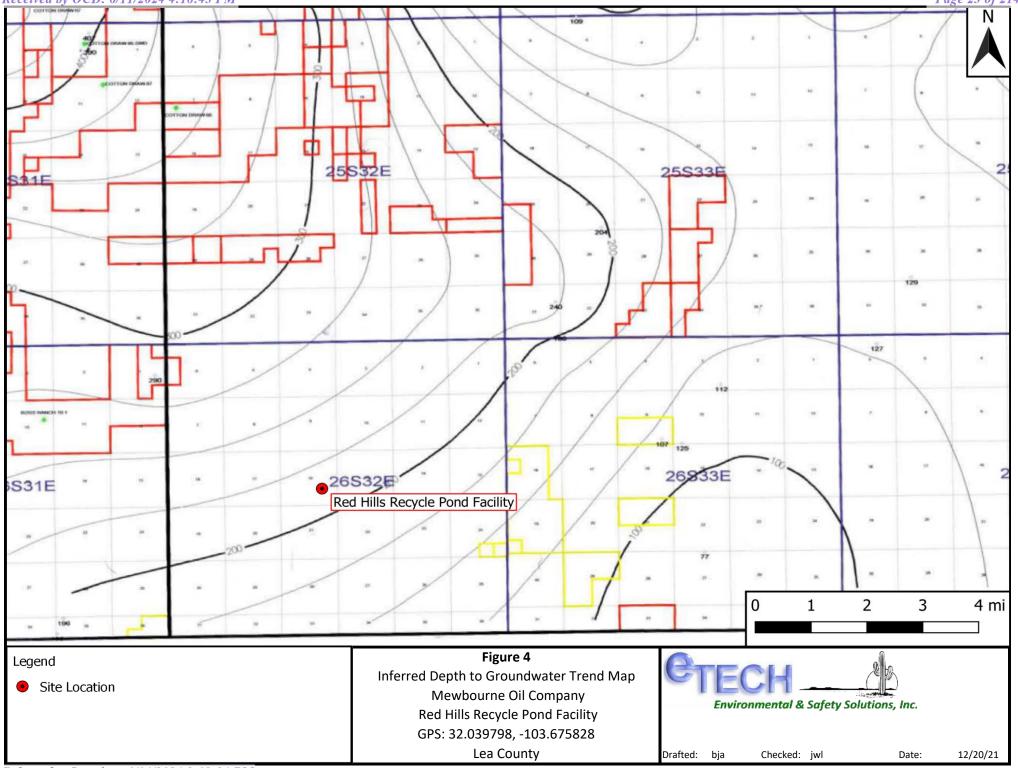
**Bold:** NMOCD Closure Criteria exceedance. Red: NMOCD Reclamation Standard exceedance.

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       6000												
				10	50	-	-	-	-	100	600	
NMOCD	Reclamation	Standard	1	10	50	-	-	-	-	100	600	
				SW 846	5 8021B		SW	846 8015M	Ext.		4500 Cl	
Sample ID	Date	Depth (Feet)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C6-C36 (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	

# Appendix A Depth to Groundwater Information



Page 23 of 214

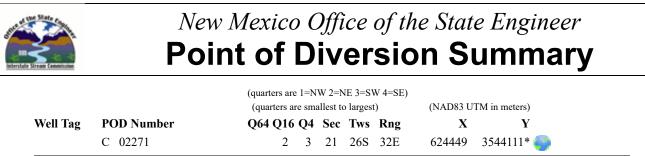


Released to Imaging: 6/14/2024 3:19:34 PM

Territer Street	W	/ate					00	0			e Engin pth t		ter	
(A CLW##### in the POD suffix indicates th POD has been replaced & no longer serves a water right file.)	been tept	aced, ned, e is <b>POD</b>		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters) (In f									`eet)	
POD Number	Cada	Sub-	Country	QQQ	-	True	Durg	,	7	Y	DistanceDe	• <b>th WallDa</b> n		Vater
<u>C 02271</u>	Code R	CUB	County LE	2 3		26S		62444	-	-	DistanceDe 1609	150	125	25
										Averaş	ge Depth to Wat Minimum De Maximum De	pth:	125 fee 125 fee 125 fee	et
<b>Record Count:</b> 1														
UTMNAD83 Ra	dius Search (in	meters)	:											
Easting (X):		,	-	ing (Y):	35456	513.55			Radius:	1610				
*UTM location was deri	ved from PLSS	- see Help												
The data is furnished by t accuracy, completeness, re								lerstanding	g that the OS	E/ISC ma	ike no warranties,	expressed or in	nplied, concern	ning the

11/15/21 10:49 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



	571	2 3 21 2	05 528 021		
x Driller License:		Driller Company:			
Driller Name:	JNKNOWN				
Drill Start Date:		<b>Drill Finish Date:</b>	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

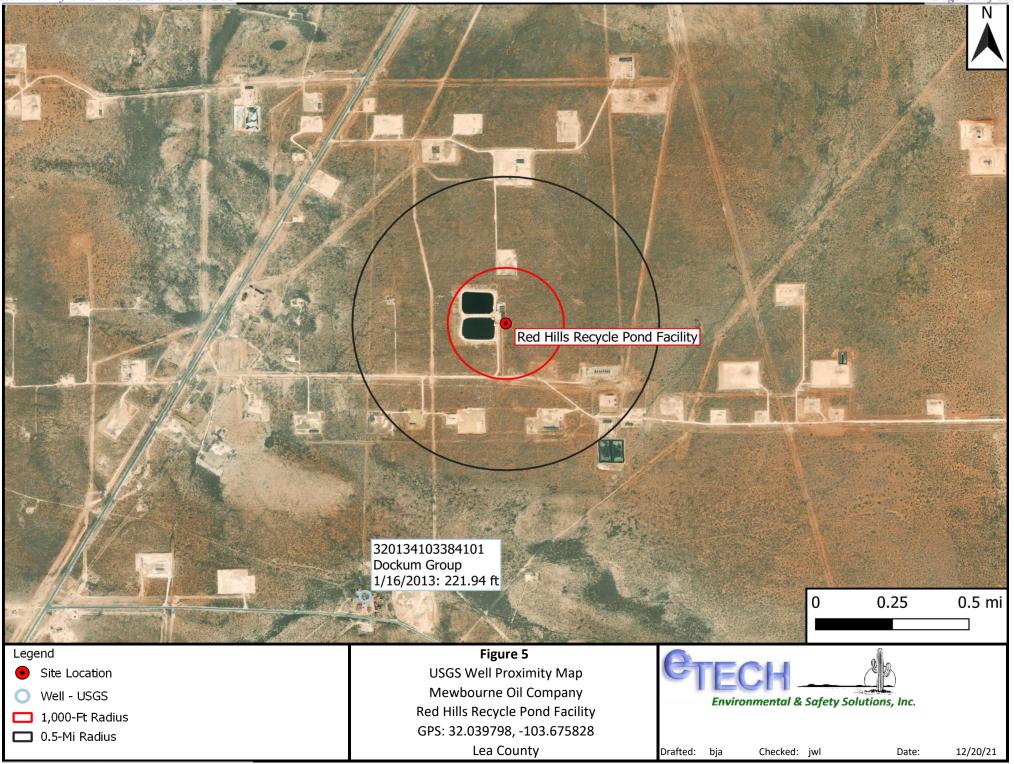
\*UTM location was derived from PLSS - see Help

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

11/15/21 10:49 AM

POINT OF DIVERSION SUMMARY

Received by OCD: 6/11/2024 4:18:43 PM



Released to Imaging: 6/14/2024 3:19:34 PM

 $\checkmark$ GO



Groundwater

United States

 $\mathbf{v}$ 

**USGS Water Resources** 

#### e Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

#### Search Results -- 1 sites found

Agency code = usqs 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 formate

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

Date \$	Time \$	? Water- level \$ date- time accuracy	? Parameter <sup>\$</sup> code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical \$ datum	? Status	? Method of measurement	? Measuring <sup>\$</sup> agency	? Source of measurement	? Water- level approval status
1993-06-16		D	72019	405.00			1	L			А
2013-01-16	19:10 UTC	m	72019	221.94			Р	S	USGS	S	А

Released to Imaging: 6/14/2024 3:19:34 PM

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	Р	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	А	Approved for publication Processing and review completed.		

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

#### Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for USA: Water Levels URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2022-04-11 14:04:53 EDT 0.43 0.32 nadww01



# **Appendix B Field Data & Soil Profile Logs**

Received by OCD: 6/11/2024 4:18:43 PM

.



# Field Samples\*

Litti unitente	i to objecty solutions, inc.				Date:	9/17 - 9/18/2021
Project:	Red Hills Recycl	e Facility				
Project Numb	er:	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.

Received by OCD: 6/11/2024 4:18:43 PM

.



# Field Samples\*

Environme	ntal & Sejety Solutions,	IDC.			Date:	9/17 - 9/18/2021
Project:	Red Hills Re	cycle Facility				
Project Nun	nber:	14966	Latitude:	32.039798	Longitude:	-103.675828
	-					

Sample ID	PID/Odor	Chloride Conc.	GPS
SP8 @ 5'		485	
H1		302	
H2		217	
H2 H3		3,683	
H4		132	
Н5		160	
H5		296	
			1
*Samples collected and field-screened by			<u> </u>

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



Sample Log

Date:

Longitude:

2-9-22

Project:	Red Hills Re	cycle Facility
Project Num	ber:	14966

32.039798

Latitude:

-103.675828

	Sample ID	PID/Odor	Chloride Conc.	a cors
	FSIE3-FSIE6-FSIEIN		2840-1532-1240>	FS1012 516
	FULL WAT FULL Right	-	384 384	
	NWI NWI Prost		<120 1532	
	NW 244 NW2 Post		468 732	
	NWS NWS		418 384	
	NW4 Post		344	
	SWILL SWISH	-	232 1072-1152	
	SWALS SWA	-	924102000 44	
	SW3 SW3 Right	-	236 672	
	Shiff Logit Shift Right		516	
	FS204 · FS206.FS20	-	2204-2376-	
	FS304.FS306.FS30		1768=924	
	FS4 = 14	·	468	
	FS2=10=FS2=12=FS2=13 FS3=10=FS3=12		1332.732.172	
	FS3010:0153012		1900-620-	
	SWIM	-	304	
	SWawa	-	1340 - 1960 - 144	
	FS3@1L		384	
	FS5e5*FS5e2*FS5e8 NN5*** NN5***		620-672-996-550,2924-755014%	236
	SW5 "		218 < 120	
			236	
	NW6		172	
	SW6 FS6@J		21.3	
-	SW7	)	21.3 268	
	SW 8	)	172	
	NW 7		172	
	NW8	•	1428- <120	
ł	NW9	-	792-236	
	F57@4'		304	
1	FS 804		996	
1	SW9	-	768. < 292	
V	Sah 10	-	224	
1	F59(94'		1760	
1	F51064	1	980	
1				
1/9	Sample Point = SP #1 @ ## etc		Test Trench = TT #1 @ ##	Resamples= SP #1 @ 5b or SW #1b
ġ	Floor = FL #1 etc		Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
00	Sidewall = SW #1 etc		Soil Intended to be Deferred = SP #1 @ 4' In-Situ	GPS Sample Points, Center of Comp Areas
eceived by OCD:	Hlessf.			
ive	Hist			
Pect				
	1736 ·			

Released to Imaging: 6/14/2024 3:19:34 PM



### Sample Log

Project: Project Number:

14966

Date: 02/16/22 Latitude: 32.039798 Long ude: -103.675828

SW 10 NW 11		228	
NW 11	-	1118	
		del	
ES LIGY'		1,2,32	
rs 120 4'	-	984	
5011	-	1232· 6324 Demont - < 200	
VWIZ		Blawout < 200	
FS 1364	-	708	
ES 14 G 4'		1.144 592 1026	
SWIZ	-	592	
NW13	-	1026	
FS 15@4'	-	916	
VW13		516	- <u> </u>
VW14	namesta.	856.732.672	
SWIZ	-		
SW13	-	144	
ESIL04	-	996	
FSITE4	~	1332	
SW 14	-	1240-000 1400-1332	
F518e4	-	1768	- · · · · ·
VW14	-	672-568	
NW15	-	996.792	
SOLOO SW 14	-	CODE 1150	
WW15	-	996-1532-1428-120 924-1072-1072-996	······
SW 13+		924.1072.1072.996	
SW14+	-	1072-856	
W13+	-	1240-996	
W13++	-	1333	
VW15		856-620-620	
W 15+	-	1340	
VW 15+	-	1270 1152	
Wi3t	-	1152	
VW15+	-	144 468 924.568.384 996.796	
VW 15+ SW13+ SW13+ SW13+ SW13+ NW18	-	468	
SW12++	-	924.568.384	
NWIS	_	996-196	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ## Refusal = SP #1 @ 4'-R

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

Floor = FL #1 etc

Received by OCD:

Sidewall = SW #1 etc

Soil Intended to be Deferred = 5P #1 @ 4' In-Situ

**GP5 Sample Points, Center of Comp Areas** 



# Sample Log

Date:

Project:

Project Number:

Latitude:

Longitude:

		PID/Odor	Chloride Conc.	GPS
	SW 13+	47828-7	732-856-856-620-568	
ſ	NW 167		516-468	
	NWIL+++	-	296.260.228	
Τ	WWI	~	1576	
	WWZ	-	4332	
	NWIS	-	144	
Γ	NWIL		296	
ſ	NW17	~	260	
ſ	NW18	~	228	
ĺ	SW14		468	
	SW15	-	384	
	SW16		1116	
ſ	WW3	~	2464	
T	WW+		704	
	3W17		196	
	WW5	~ ·	1368	
	SW17+	-	228	
4	SW17++		372	
4	WW6	_	413	
	WW7 EW2	~	500	· · · ·
1	EWiz		296	
	EWS	<u> </u>	296	
	WW 8		228	
L	EW4	-	)96	
	FAQU	-	260	
	FBOY	-	372	
	FCel	-	188	
	FDe2'		160	
	EWS	_	328	
+	WW9		136	
	ED azi ED all'	-	824-596-412	
	FDez'.FDe4'	)	576-228	
	-Ee2'		196	
	ENO FRAN		1/6	+
100	FEZ		452 548	
~ = =	JW ID			
Pacainad hu OCD. 6/1	Sample Point = SP #1@ ## etc FG@2		196 Test Irench = TT #1@ ##	พี่เรื่อง เป็น เรื่อง เรื่อ
Ē	Floor = FL #1 etc FH@2		) 6 8 Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
9	Sidewall = SW #1 etc		Soil Intended to be Deferred = SP #1 @ 4' in-Situ	GPS Sample Points, Center of Comp Areas
A P	5 <sup>-</sup> 3			
- in				
Doc				

. 79	-
1	
C	N
4	
~	-
	0
L,	0
S	3
	6
	20
	a
R	2

Sec. Intel-opmental

Test Trenches + Horizontal,

PID/Odor

\_\_\_\_

-

\_

14966

Sample Log

Chloride Conc.

2-24-22 Date:

Project: Red Hills Recycle Facility Project Number:

Test Treache

SPIes, t. Spiel

SP2es, fosp2e2

SP2e4 esp2ed

SP2@8'osP2@10

Spaela'sspael4

Sample ID

1900-344

1532016480

2572-23760

2.600-2.204-

1072012400

Latitude: 32.039798 Longitude: -103.675828

026

NH3es, f. = NH3e EHles, f. . EHle EH2es.f. • EH2e SHIesuf. SHIE SHZes, f. SHZel SH3cSuf SH3el Hlesuf . WHle WH2es, f. WH2e 4.18.43 Received by OCD: 6(11/202) Sample Point = SP #1 @ #

Jacidesidell		1019 1970	
Spach spaces spaced	-	1152-620-468 SP2=21-236	
SP3eSuf. SP3ed'sSP3e4	-	2,600-2376-2,572-	
5P3e& SP3e8 SP3e 10	~	1900 • 1.648 • 1.532 •	
SP3012: SP3014	-	1152-468	
SP4es,f. ·SP4e2 · SP4e4	-	1900 • 1240 • 996 •	
SP4eb osp4e8 osp4e10	-	792 • 672 • 924 •	
SP4e12' · SP4e14'	-	620-516	
SP5es, f. SP5e2 · SP5e4	-	2840-2200-2376-	
SP506' • SP508' • SP5010'	-	1900 • 1532 • 1240 •	
SP5e12	- 1	512	
SP6@S.f. · SP6e2	-	1,240 - 172	1
* Horizontals			
NHIes, f. • NHIEI		1236 • 172	
NHZest.f. »NHZel	-	384 - 144	
VH3es, F. = NH3el	-	228 . < 120	
EHlesuf. • EHlel	-	1236 . < 120	
Haesuf . EHael	-	228 • 172	
SHIesuf. SHIEL	-	324 = 144	
Haes, f. SHael	-	268 • 144	
H3csuf SH3el	-	268 - < 120	
HIES., f WHIEL	-	236 = 172	
NH2esuf. · WH2el	-	236 - 144	
	<u> </u>		
Sample Point = SP #1 @ ## etc		Test Trench = TT #1 @ ##	Resamples= 5P #1 @ 5b or SW #1b
Sample Point = SP #1 @ ## etc Floor = FL #1 etc Sidewall = SW #1 etc		Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
Sidewail = SW #1 etc		Soil intended to be Deferred = SP #1 @ 4' In-Situ	GPS Sample Points, Center of Comp Areas



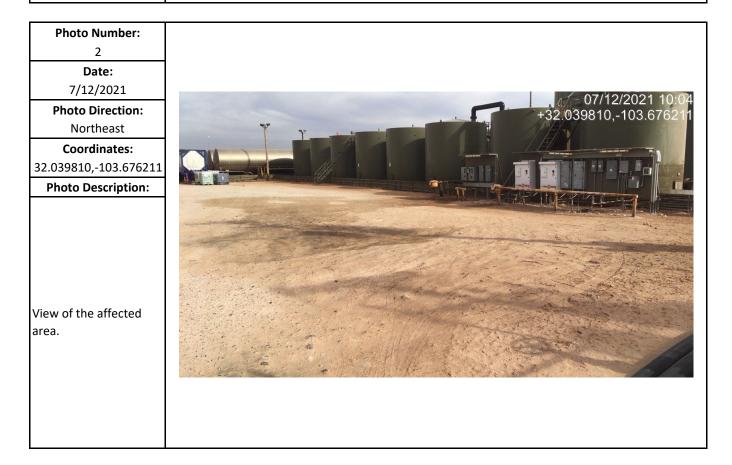
# Soil Profile

ject: Red Hills Recycl ject Number: th (ft. bgs) Suiface	14966 Latitude:	32.039798	Longitude:	-103.675828
th (ft. bgs) Suiface				
1_)		De	scription	
2	SADI	111		
3	Jand, Kid	Sand, dr.	ift Sano	//
4 4		Chinese and a constant of the process of the Life data ways and and the second		
5		<u> </u>	la en jaren ett alle en senere ett alle	NT FOLK IT FOLK IN A MANY OF MANY MANY MANY MANY MANY MANY MANY MANY
6	Caliche,	fock,		
7	Curre	NAMES AND ADDRESS OF A DESCRIPTION OF A		
8 8		an an earlier that the case of the two second at the second at		na aunan naprataninganan <mark>an</mark> ana manakan kana kana kana kana kana ka
9 10	Calich	Clay		
11		<u> </u>	na mananana ama kina mang dan kalandan na mang dan kalang kanang dan kalang kanang dan kanang dan kanang dan ka	
12 12 /	and a second	na printe de la manumenta da proposa de la compañía		dinakanan kenala kalah perdakan kelangan pengalangan - Ananya menangkan penangkan penangkan penangkan kelangka
13	(1)			
14	Sand, Cl	91		nen perinteran analakan perinteran analaka di Manana anakar di Kanana anakar ana anakar anakar anakar anakar di
15				
16 16				
17		Lan 197 Per La Malanti a Magneti de La Malanti de La Ma		ner men en sen se
18	Clar			enementaris metrophetariani antari antari antari persite metrophetari antari antari antari antari antari antari
19	and the second	1999 - 1997 - 19	NAMES AND ADDRESS OF TAXABLE PARTY OF TAXABLE ADDRESS OF TAXAB	NAMES CONTRACTOR AND INCOMES AND ADDRESS AND ADDRESS AND ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS
20 20			and a state of the second and an end of the second and an end of the second and the second and the second and t	
21 22		All and a state of the state of	an program in the second of the second s	
23			ander in the late to an electron strategy of the second state of the second state of the second state of the se	Na si Mandrida ya manana sa mana ka manga si sa manga sa Na si Mandrida ya manga sa mang
24	UNDER ER ER TELTEN DER ER E			NAMES AND A DESCRIPTION OF A DESCRIPTION O
25	dan kan de sen sekan sekan K	un and and a state of the second of the second of the second second second second second second second second s	senanta anti peti mata ana den ang dipangka di Catali banan kana da da ana ang da da man	ann ann an tha ann an ann an ann an ann ann ann ann
26				
27				
28	and the second	n na na mana mana mana mana mana mana m		Lang Lang ( metalah di lang kelang pengan di kanang kelang kenang kelang kenang kenang kenang kenang kenang ke
29		gan ang bar sa kara na	n (n 11) (h i nan anna an ta anna anna anna anna anna an	REPORTED AND A DESCRIPTION OF THE REPORT
30				Ministerio and a second sec
31		an in the same of the second secon		adalating and any any and an an and an an
33			and a state of the	
34			1993) (1994) (1994) (1994) (1994) (1995) (1995) (1994) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995)	an and the stand of the local and the standard and the
35		n dia mandritra dia mandritra di San Angelandi da Angelandi na San Angelandi na San Angelandi angelandi sa San S	en lanten sine versionen eine Constant für sin sin sin sin sin sine sine sine sin sin sin sin sin sin sin sin s	ntona na n
36		a a su a		
37				
38				
39				
40		an a fa a shara	HATTEN MELANTIAL DER GUTAT MATCHIK MUSIK man minne Namen in der Können der Können der Können der Können der Kön	

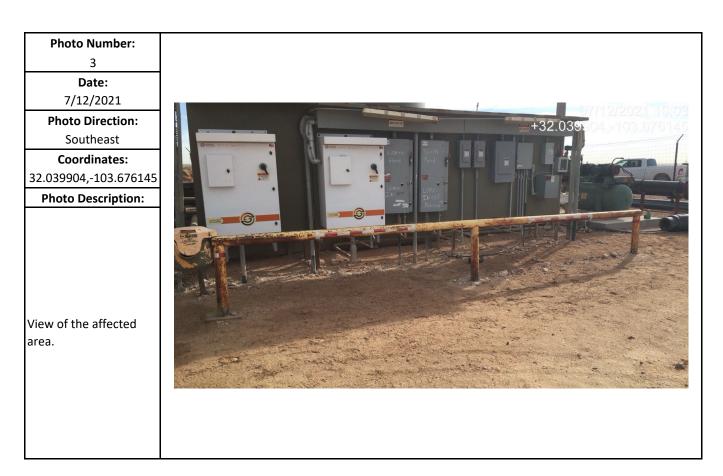
# Appendix C Photographic Log

## Photographic Log

Photo Number:	
1	
Date:	
7/12/2021	07/12/2021 10:02
Photo Direction:	07/12/2021/10:03 +32.039739,-103.676102
North	
Coordinates:	
32.039739,-103.676102	
Photo Description:	
View of the affected area.	



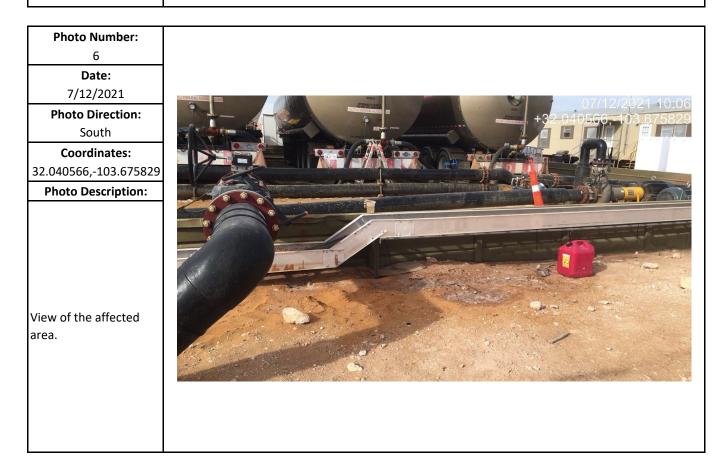
## Photographic Log

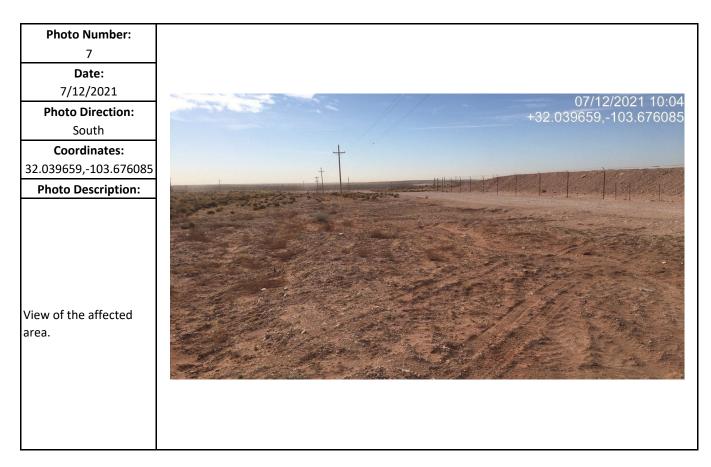


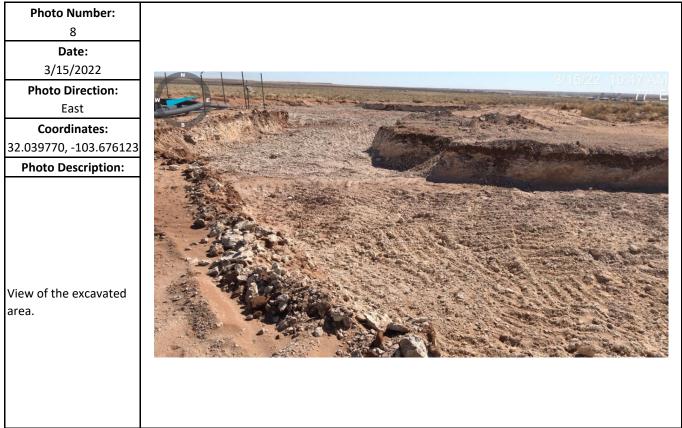


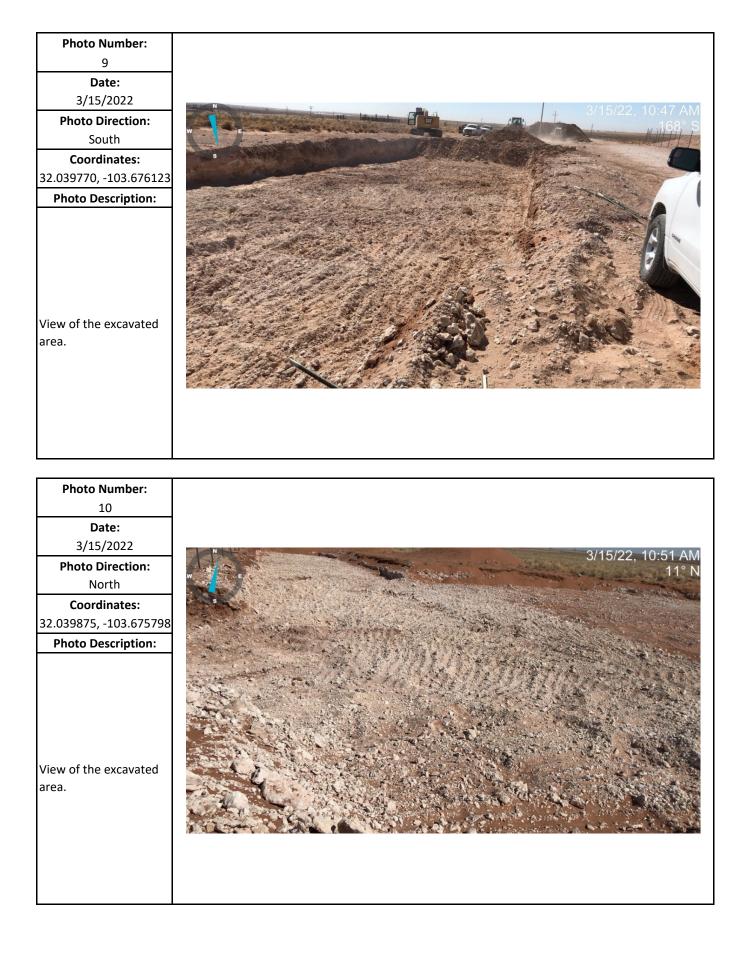
## Photographic Log

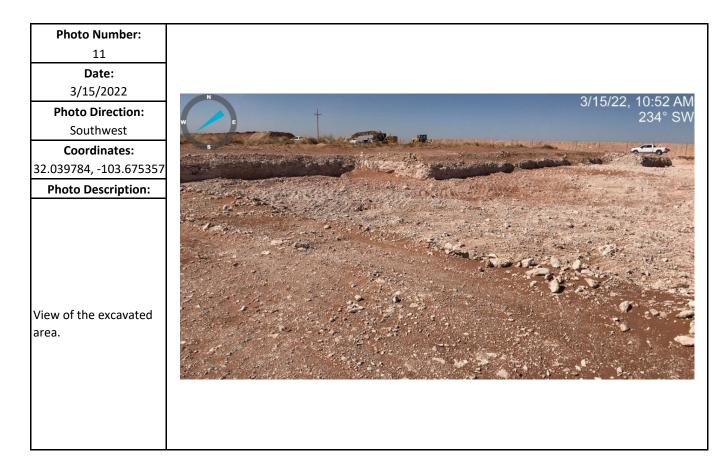
Photo Number: 5 Date:
7/12/2021
Photo Direction: South
Coordinates:
32.039904,-103.676145
Photo Description:
'iew of the affected rea.

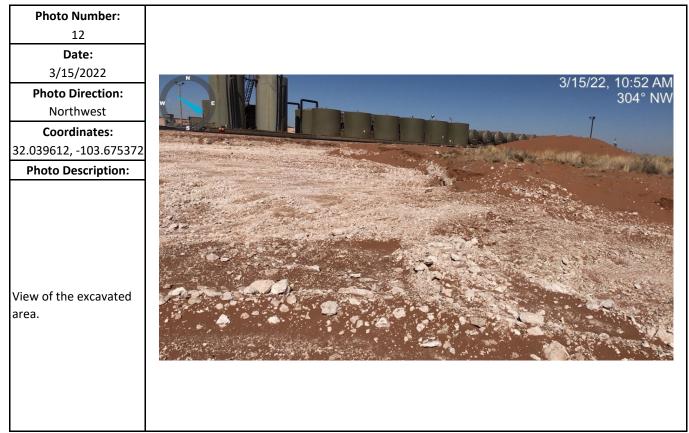


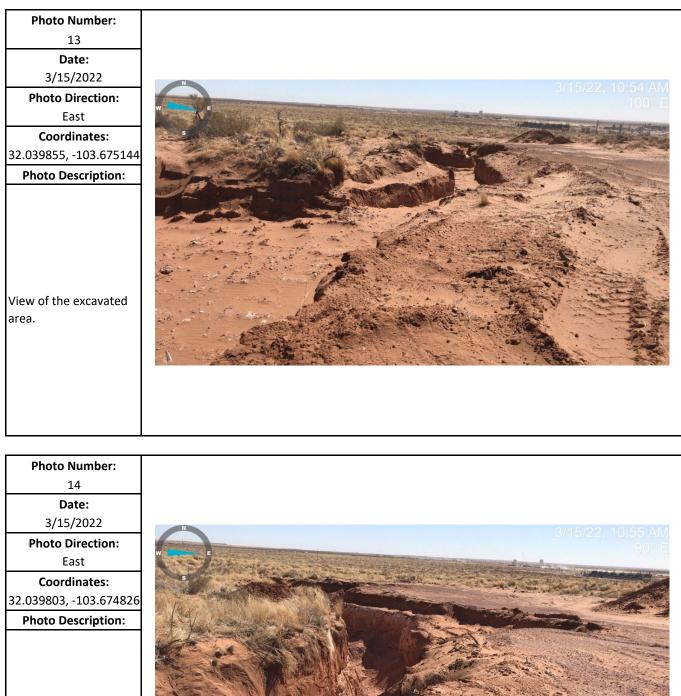






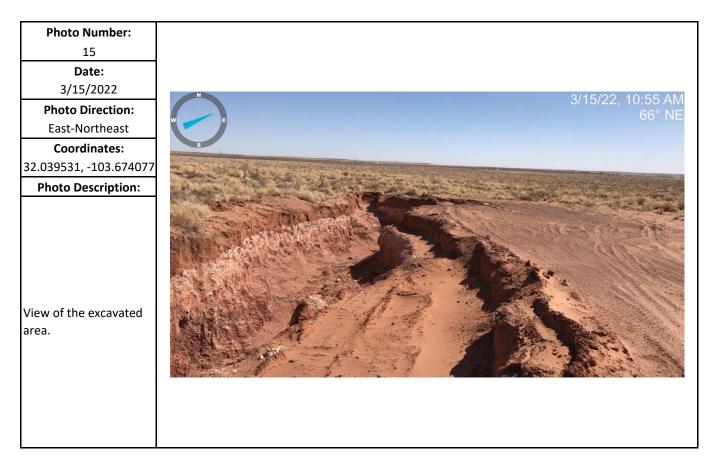


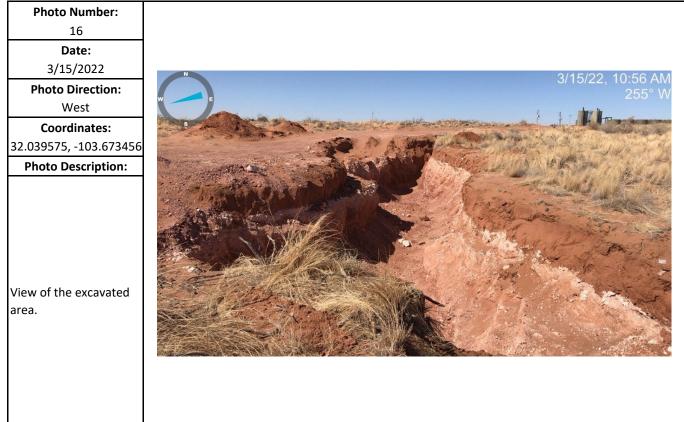




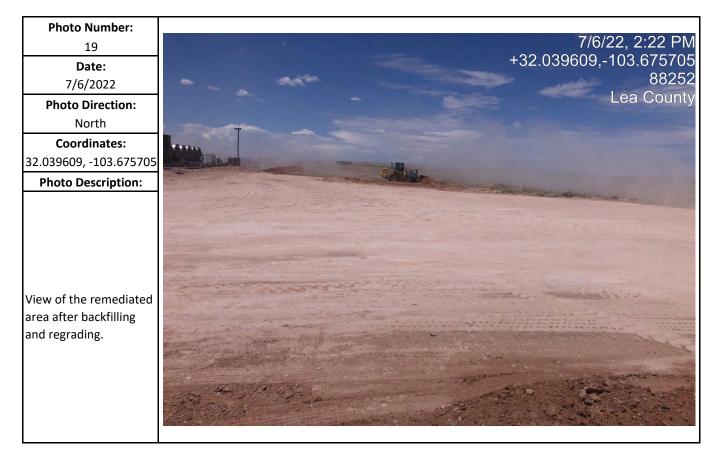
View of the excavated area.









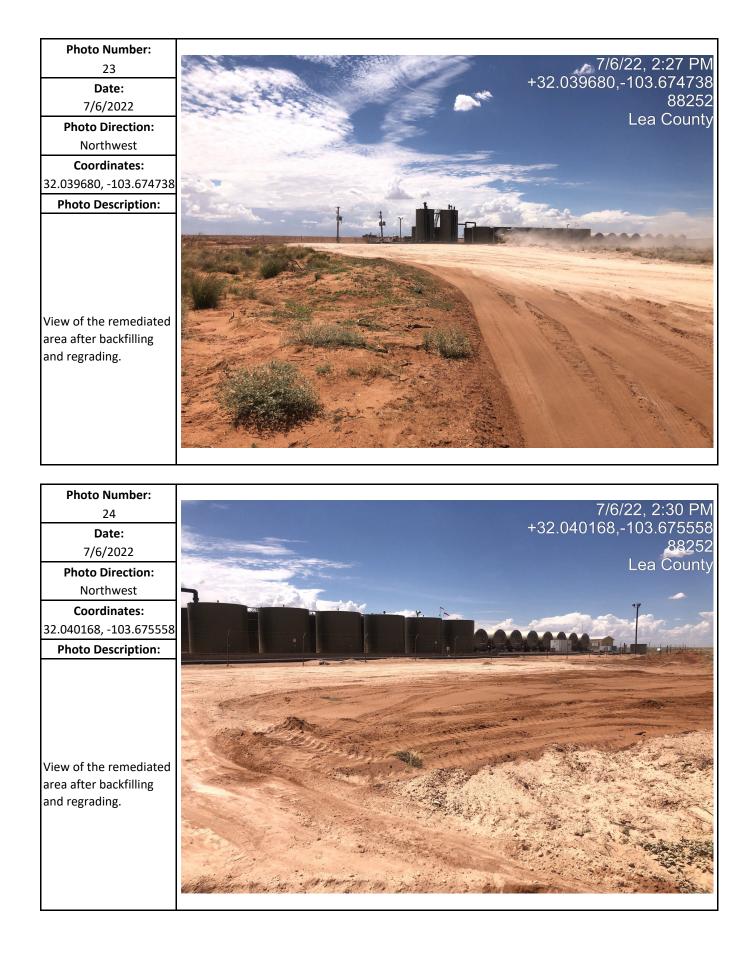
















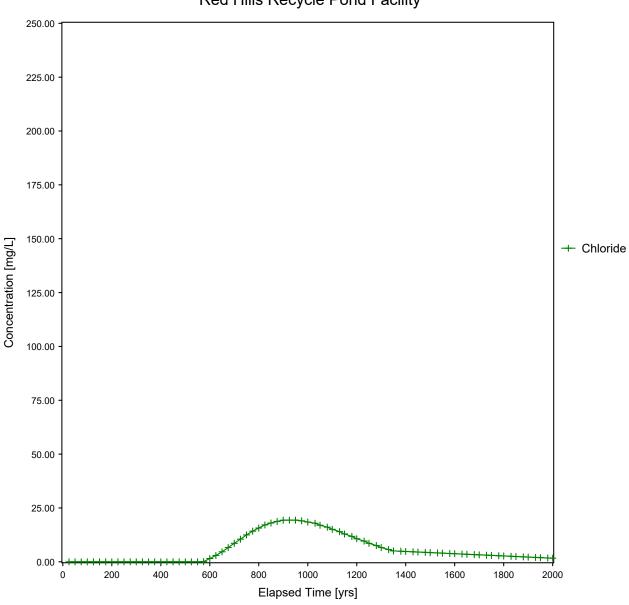
•

# Appendix D Multimedia Exposure Assessment Model (MULTIMED)

Excavation

### Chloride Concentration at the Receptor Well (Lined Excavation) Mewbourne Oil Company Red Hills Recycle Pond Facility

Released to Imaging: 6/14/2024 3:19:34 PM



**Released** to U.S. ENVIRONMENTAL PROTECTION AGENCY EXPOSURE ASSESSMENT Imagin MULTIMEDIA MODEL MULTIMED (Version 1.50, 2005) sitched to Stehfest algorithm to avoid numerical problems with Convolution algorithm. Problems were caused by high source decay rate. Everything ok now, execution continuing... 1 일 Rin options 13:19:34 Mewbourne Oil Company Red Hills Recycle Pond Facility Chemical simulated is Chloride Option Chosen Saturated and unsaturated zone models Run was 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 UNSATURATED ZONE FLOW MODEL PARAMETERS (input parameter description and value) - Total number of nodal points 240 NP - Number of different porous materials 1 NMAT KPROP - Van Genuchten or Brooks and Corey 1 1 IMSHGN - Spatial discretization option 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

. 1

31.70

# DATA FOR MATERIAL 1

#### VADOSE ZONE MATERIAL VARIABLES

Received by
 ocn:
 6/11/20
24 4:18:4
13 PM

VARIABLE NAME	UNITS	DISTRIBUTION	PARA	AMETERS	LI	MITS	D:
			MEAN	STD DEV	MIN	MAX	6/1
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.	1/20
Unsaturated zone porosity		CONSTANT	0.250	-999.	-999.	-999.	24
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.	4
Depth of the unsaturated zone	m	CONSTANT	31.7	0.000	0.000	0.000	18:

#### DATA FOR MATERIAL 1

----- -----

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	IS DISTRIBUTION PAR.		METERS	L7	IMITS	
			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-02	2 -999.	-999.	-999.	
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.	

Released to Imaging: 6/14/2024 3:19:34 PM

#### 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
	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 DATA FOR LAYER 1 \_\_\_\_ \_\_\_ \_\_\_ VADOSE TRANSPORT VARIABLES

	VADOSE	TRANSPORT VARIABL	ES				
VARIABLE NAME	VARIABLE NAME UNITS		DISTRIBUTION PARAN			LIMITS	
			MEAN	STD DEV	MIN		
hickness of layer	 m	CONSTANT	31.7	-999.	-999.		
ongitudinal dispersivity of layer		DERIVED	-999.		-999.		
ercent organic matter		CONSTANT	0.000	-999.	-999.	-999.	
ulk density of soil for layer	a/cc	CONSTANT	0.000 1.99	-999	-999. -999.	-999.	
ercent organic matter ulk density of soil for layer iological decay coefficient	1/vr	CONSTANT	0.000	-999.	-999.	-999.	
	_,						
	CHEMICAI	SPECIFIC VARIABL	ES				
			^				
VARIABLE NAME	UNITS	DISTRIBUTION	PARA MEAN	METERS STD DEV		MITS MAX	
			MEAN	51D DEV		MAX	
olid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.	
issolved phase decay coefficient	1/yr	DERIVED	-999.	-999. -999.	-999. -999.	-999.	
verall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.	
issolved phase decay coefficient verall chemical decay coefficient cid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.	
eutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.	
ase catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.		
eference temperature	C		25.0	-999.	-999.	-999.	
ormalized distribution coefficient		CONSTANT			-999.	-999.	
istribution coefficient		DERIVED	0.000 -999.	-999.	-999.	-999.	
iodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.	
ir diffusion coefficient	cm2/s	CONSTANT	-999.	-999.		-999.	
eference temperature for air diffusion		CONSTANT	-999.	-999.	-999.		
olecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.	
ole fraction of solute		CONSTANT	-999.	-999.	-999.	-999.	
apor progrupo of goluto	mm Hg	CONSTANT	-999.	-999.	-999.	-999.	
enry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.	
verall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00	
ot currently used	-	CONSTANT	0.000		0.000		
ot currently used		CONSTANT	0.000	0.000	0.000	0.000	

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMI	 ETERS	 LI	MITS	
			MEAN	STD DEV	MIN	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.	Pa
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.	Se
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.	5
Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.	.0
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000	f 2
Initial concentration at landfill	mg/l	CONSTANT	0.128E+04	-999.	-999.	-999.	14

1

•

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	

#### AQUIFER SPECIFIC VARIABLES

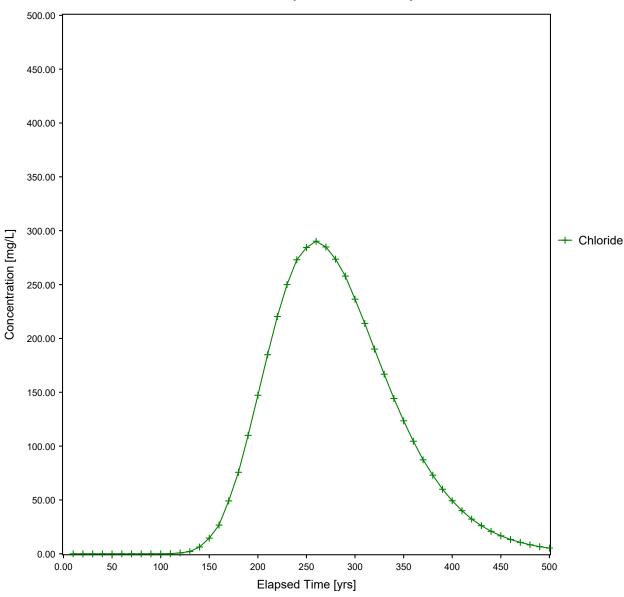
Width scale of facility Near field dilution	m	DERIVED DERIVED	-999. 1.00	-999. 0.000	-999. 0.000	-999. 1.00	Neu
	AQUIFF	ER SPECIFIC VARIABLES	S				Kecewea by
							by v.
VARIABLE NAME	UNITS	DISTRIBUTION	PARA'	METERS	L]	 IMITS	
			MEAN	STD DEV	MIN	MAX	0/1.
Particle diameter	 CM	CONSTANT	-999.	-999.	-999.	-999.	1/2024
Aquifer porosity		CONSTANT	0.300	-999.	-999.	-999.	64
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.	7.10.70
quifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.	l de la constante de la consta
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	2 -999.	-999.		
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.	
Retardation coefficient		DERIVED	-999.	-999.	-999.	-999.	
ongitudinal 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.	
emperature of aquifer	С	CONSTANT	20.0	-999.	-999.	-999.	
H		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

•

1

# Chloride Concentration at the Receptor Well (Unlined Excavation) Mewbourne Oil Company Red Hills Recycle Pond Facility



Received by OCD: 6/11/2024 4:18:43 PM

.

MODIIMED VI.OI	DAIL OF CAL	COLATIONS. 15 AIR 20	022 IIME. 21.57.15	
Rele	U. S.	ENVIRONME	NTAL PROTECTI	ON AGENCY
ased		EXPOST	URE ASSESSMENT	2
to Im		MULT	IMEDIA MODEL	
agin		MULTIMED	(Version 1.50, 2005)	
l 🤗 Rom options				
Released to Imaging: Released to Imaging: Released to Imaging: Released to Imaging: Migribourne Oil Compa Red Hills Recycle P				
Mewbourne Oil Compa	ny			
Red Hills Recycle P	ond Facility			
Chemical simulated	is Chloride			
Option Chosen		~		
Run was		Saturated and DETERMIN	d unsaturated zone models	
Infiltration Specif Run was transient Well Times: Find Ma Reject runs if Y co Reject runs if Z co Gaussian source use	ximium Conce ordinate out ordinate out	ntration side plume side plume		
1 1				
UNSATURATED ZONE FL (input parameter de				
NP - Total num	ber of nodal	points	240	
NMAT - Number of KPROP - Van Genuc	hten or Broo	ks and Corey	1 1	
IMSHGN - Spatial d NVFLAYR - Number of			1 1	
OPTIONS CHOSEN				
Van Genuchten funct User defined coordi 1		cients		
Layer information				
	THICKNESS	MATERIAL PROPERTY		
1	31.70	1		

#### VADOSE ZONE MATERIAL VARIABLES

\_\_\_\_ \_\_\_ \_\_\_

VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	MITS
			MEAN	STD DEV	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	31.7	0.000	0.000	0.000
	DATA FO	OR MATERIAL 1				

VARIABLE NAME	UNITS	DISTRIBUTION	PARAM	ETERS	LI	MITS
			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-02	-999.	-999.	-999.
Van Genuchten exponent, ENN		CONSTANT	1.09	-999.	-999.	-999.

#### 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

1

VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	MITS
			MEAN	STD DEV	MIN	MAX
Thickness of layer	m	CONSTANT	31.7	-999.	-999.	-999.
Longitudinal dispersivity of layer	m	DERIVED	-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 VARIABL	ES			
VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	MITS
			MEAN	STD DEV	MIN	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.
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			0.000	-999.	-999.	-999.
Reference temperature	C	CONSTANT	25.0	-999.		
Normalized distribution coefficient			0.000	-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		CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	q/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute		CONSTANT	-999.	-999.	-999.	-999.
	mm Hg	CONSTANT	-999.	-999.	-999.	
Vapor pressure of solute		CONSTANT	-999.	-999.	-999.	
	atm-m^3/M	CONSIANI				
Henry`s law constant a	atm-m^3/M 1/vr			0.000	0.000	1.00
			0.000			

#### SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMI	ETERS	LI	MITS	
			MEAN	STD DEV	MIN	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.	Pa
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000	Page
Initial concentration at landfill	mg/l	CONSTANT	0.128E+04	-999.	-999.	-999.	60
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	00
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	f 2
Near field dilution		DERIVED	1.00	0.000	0.000	1.00	14

1

.

	AQUIFE	R SPECIFIC VARIABLES	5				
VARIABLE NAME	UNITS	DISTRIBUTION	PARAM	 ETERS	LI	MITS	
			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	С	CONSTANT	20.0	-999.	-999.	-999.	
рН		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

•

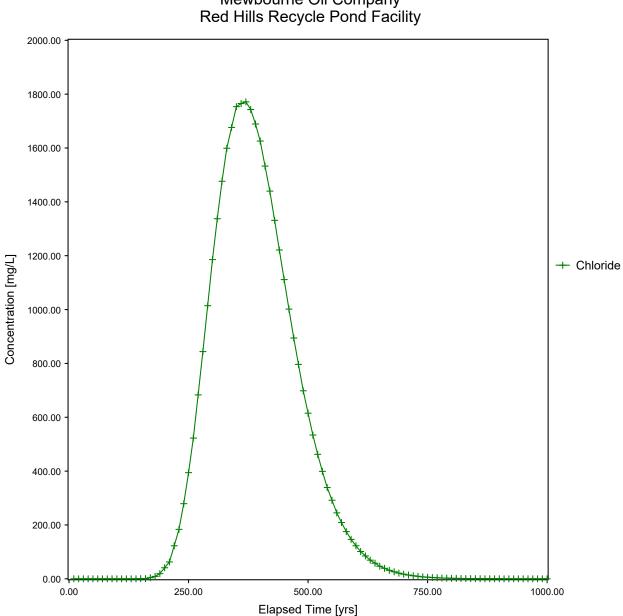
1

•

# Appendix E Multimedia Exposure Assessment Model (MULTIMED)

# **Deferral Area**

Released to Imaging: 6/14/2024 3:19:34 PM



## Chloride Concentration at the Receptor Well (Deferred Area) Mewbourne Oil Company Red Hills Recycle Pond Facility

Received by OCD: 6/11/2024 4:18:43 PM

.

MOLIIMED	VI.UI DAIL OF CAL	COLATIONS. IS-AFK-2022 IIME. 21.52.30
Relea	U. S.	ENVIRONMENTAL PROTECTION AGENCY
ased		EXPOSURE ASSESSMENT
to In		MULTIMEDIA MODEL
nagin		MULTIMED (Version 1.50, 2005)
4 P.	l Company cycle Pond Facility ulated is Chloride	
Run was tran Well Times: Reject runs Reject runs	Specified By User:	entration side plume side plume
L UNSATURATED (input param NP - To NMAT - Nu KPROP - Va IMSHGN - Sp	ZONE FLOW MODEL PAR eter description an tal number of nodal mber of different p n Genuchten or Broo atial discretizatio mber of layers in f	AMETERS d value) points 240 porous materials 3 pks and Corey 1 pn option 1
OPTIONS CHOS	EN	
User defined 1	 n functional coeffi coordinate system	cients
Layer inform	ation	
LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1 2 3	33.00 2.50 0.50	1 2 3

#### DATA FOR MATERIAL 1

\_\_\_\_ \_\_\_ \_\_\_

#### VADOSE ZONE MATERIAL VARIABLES

Released	
to Imagi	
Released to Imaging: 6/14/2024 3:19:34 PM	Sat Uns Air Dep
PN	

VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	MITS
			MEAN	STD DEV	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	PARAM	ETERS	LI	MITS	
			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-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	PARA MEAN	METERS STD DEV	LI MIN	MITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.140	-999.	-999.	-999.
Unsaturated zone porosity Air entry pressure head	— — m	CONSTANT CONSTANT	0.120 0.700	-999. -999.	-999. -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

							Dag
VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	IMITS	e 6:
			MEAN	STD DEV	MIN	MAX	of
Residual water content		CONSTANT	0.116	-999.	-999.	-999.	214

Brook and Corey exponent,EN ALFA coefficient Van Genuchten exponent, ENN	1/cm 	CONSTANT CONSTANT CONSTANT	-999. 0.500E-02 1.09	-999. -999. -999.	-999. -999. -999.	-999. -999. -999.	
	DATA FO	OR MATERIAL 3					
	VADOSE ZONI	E MATERIAL VARIABL	ES				
VARIABLE NAME	UNITS	DISTRIBUTION	PARAME		LI	IMITS	
VARIABLE NAME	UNITS	DISTRIBUTION	PARAME MEAN	ETERS STD DEV	LI. MIN	IMITS MAX	
VARIABLE NAME Saturated hydraulic conductivity	UNITS cm/hr	DISTRIBUTION CONSTANT		STD DEV		-	·
			MEAN	STD DEV	MIN	MAX	·
Saturated hydraulic conductivity		CONSTANT	MEAN 0.848E-03 0.150	STD DEV -999.	MIN -999.	MAX -999.	

#### DATA FOR MATERIAL 3

\_\_\_\_ \_\_\_ \_\_\_

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMI	ETERS	LI	MITS
			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

Released to Imaging: 6/14/2024 3:19:34 PM

#### 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
Ν	-	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	PARA	METERS	LI	MITS	
			MEAN	STD DEV	MIN	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	 DADA	 Meters	т.т	 MITS
VARIADLE NAME	UNIIS	DISTRIBUTION	MEAN	STD DEV	MIN	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	С	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 diffusio	n 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	PARAM MEAN	ETERS STD DEV	LI MIN	IMITS MAX	Pag
Infiltration rate Area of waste disposal unit Duration of pulse Spread of contaminant source	m/yr m^2 yr m	CONSTANT CONSTANT DERIVED DERIVED	0.229E-01 0.241E+04 0.100E-08 -999.	-999. -999.	-999. -999. -999. -999.	-999. -999. -999. -999.	e 67 of 214

1

•

1

Received by OCD: 6/11/2024 4:18:43 PM

Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.	
Source decay constant	1/yr	CONSTANT	0.250E-0	01 0.000	0.000	0.000	>
Initial concentration at landfill	mg/l	CONSTANT	0.193E+0	05 -999.	-999.	-999.	Received
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	en
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	vea
Near field dilution		DERIVED	1.00	0.000	0.000	1.00	l by
							~

#### AQUIFER SPECIFIC VARIABLES

Source decay constant Initial concentration at landfill Length scale of facility Width scale of facility Near field dilution	1/yr mg/l m m	CONSTANT CONSTANT DERIVED DERIVED DERIVED	0.250E-01 0.193E+05 -999. -999. 1.00	-999. -999. -999.	-999.		Received by OCD: 6/1
	AQUIFE	R SPECIFIC VARIABLE:	S				OCD:
VARIABLE NAME	UNITS	DISTRIBUTION	PARAM MEAN	ETERS STD DEV		MITS MAX	6/11/2024
Particle diameter	 Cm	CONSTANT	-999.	 -999.	-999.		4:18:43 PM
Aquifer porosity		CONSTANT	0.300	-999.	-999.	-999.	4
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.	31
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.	M
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	С	CONSTANT	20.0	-999.	-999.	-999.	
рН		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

.

.

Relea	U. S.	ENVIRONMENTAL PROTECTION AGENCY
ised		EXPOSURE ASSESSMENT
to Im		MULTIMEDIA MODEL
nagin		MULTIMED (Version 1.50, 2005)
1 🧖 Rom options		
Released to Imaging: options 1 Released to Imaging: 0.14/2024 1.12/2024 3: wbourne Oi Released to Imaging: 0.14/2024 1.12/2024 3: wbourne Oi Released to Imaging: 0.14/2024 3: wbourne Oi		
Mewbourne Oi	l Company	
Red Hills Re	cycle Pond Facility	
	ulated is Chloride	
Option Chose	n	
Run was	11	Saturated and unsaturated zone models DETERMIN
Run was tran Well Times: Reject runs Reject runs	Specified By User: sient Entered Explicitly if Y coordinate outs if Z coordinate outs rce used in saturate	2.286E-02 m/yr ide plume ide plume
	ZONE FLOW MODEL PARA	
(input param	eter description and	value)
	tal number of nodal ; mber of different po	
	n Genuchten or Brook atial discretization	
	mber of layers in fl	
OPTIONS CHOS	EN	
	n functional coeffic coordinate system	Tellts
Τ		
Layer inform	ation	
LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	33.00	1
2 3	2.50 0.50	2 3

#### DATA FOR MATERIAL 1

\_\_\_\_ \_\_\_ \_\_\_

#### VADOSE ZONE MATERIAL VARIABLES

Released	
to Imag	
Released to Imaging: 6/14/2024 3:19:34 PM	 Sat Uns
2024 3:19	Air Dep
):34 PM	

VARIABLE NAME	UNITS	DISTRIBUTION	PARA	METERS	LI	MITS	
			MEAN	STD DEV	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	PARAM	ETERS	 LI	MITS	
			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-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	PARA MEAN	METERS STD DEV	LI MIN	MITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	0.140	-999.	-999.	-999.
Unsaturated zone porosity Air entry pressure head	—— m	CONSTANT CONSTANT	0.120 0.700	-999. -999.	-999. -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

							pag
VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS		LI	MITS	e 71
			MEAN	STD DEV	MIN	MAX	) of
Residual water content		CONSTANT	0.116	-999.	-999.	-999.	214

Van Genuchten exponent, ENN	1/cm 	CONSTANT CONSTANT	-999. 0.500E-02 1.09	-999. -999. -999.	-999. -999. -999.	-999. -999. -999.
	DATA F	or material 3				
	VADOSE ZONI	 E MATERIAL VARIABL	ιES			
VARIABLE NAME	UNITS	DISTRIBUTION	PARAME	-		MITS
			MEAN	STD DEV	MIN	MAX
	cm/hr	CONSTANT	0.848E-03 0.150	-999.	-999. -999.	-999. -999.
Saturated hydraulic conductivity						
Unsaturated zone porosity Air entry pressure head	—— m	CONSTANT CONSTANT		-999.	-999.	-999.

#### 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

Released to Imaging: 6/14/2024 3:19:34 PM

#### 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
Ν	-	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						d by O		
VARIABLE NAME	UNITS			METERS STD DEV	LI MIN	MITS 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	PARA	 Meters	т.т	 MITS
	01110	DIDINIDUIION	MEAN	STD DEV	MIN	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	С	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	С	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	PARAM MEAN	ETERS STD DEV	LI MIN	MITS MAX	Pag
Infiltration rate Area of waste disposal unit Duration of pulse Spread of contaminant source	m/yr m^2 yr m	CONSTANT CONSTANT DERIVED DERIVED	0.229E-01 0.241E+04 0.100E-08 -999.	-999. -999.	-999. -999. -999. -999.	-999. -999. -999. -999.	e 72 of 214

1

•

1

Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.	
Source decay constant	1/yr	CONSTANT	0.250E-0	01 0.000	0.000	0.000	-
Initial concentration at landfill	mg/l	CONSTANT	0.193E+0	05 -999.	-999.	-999.	lec
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	en
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.	<i>yea</i>
Near field dilution		DERIVED	1.00	0.000	0.000	1.00	[b]
							~

## AQUIFER SPECIFIC VARIABLES

Source decay constant Initial concentration at landfill Length scale of facility Width scale of facility Near field dilution	1/yr mg/l m m	CONSTANT CONSTANT DERIVED DERIVED DERIVED	0.250E-01 0.193E+05 -999. -999. 1.00	-999. -999. -999.	0.000 -999. -999. -999. 0.000	-999.	Received by OCD: 6/1
	AQUIFE	R SPECIFIC VARIABLE	S				OCD:
VARIABLE NAME	UNITS	DISTRIBUTION	PARAM MEAN	ETERS STD DEV	LI MIN	MITS MAX	6/11/2024
Particle diameter	CM	CONSTANT	-999.	-999.	-999.	-999.	4:18:43 PM
Aquifer porosity		CONSTANT	0.300	-999.	-999.		:43
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.	P
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.	M
Source thickness (mixing zone depth)	m	DERIVED	-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	С	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.	

TIME	CONCENTRATION
0.100E+C 0.200E+C 0.300E+C 0.400E+C 0.500E+C 0.600E+C 0.600E+C 0.800E+C 0.900E+C 0.100E+C 0.110E+C 0.120E+C	2       0.00000E+00         3       0.00000E+00         3       0.00000E+00         3       0.00000E+00
0.130E+C 0.140E+C 0.150E+C	3 0.00000E+00
0.130E+0 0.160E+0 0.170E+0 0.180E+0 0.190E+0	03 0.99038E+00 03 0.42447E+01 03 0.89503E+01

1

•

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

•

Received by OCD: 6/11/2024 4:18:43 PM

•

# **Appendix F Laboratory Analytical Reports**



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



## 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	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	116 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	143	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	119 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	122	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	154 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	136 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	120	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	113 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	110 9	59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

No	Resh

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1.+2



101 East Marland, Hobbs, NM 88240 (575) 202 2226 EAV (575) 202 2476

Company Name	Etech Environmenta	al & Safety Solu	itions,	Inc.						BI	1940					A	NALY	SIS R	EQUE	ST		
Project Manage	r: Lance Crepshaw		-					P.	0. #	:			1									
Address: P.O	. Box 301							C	omp	any: N	1embou											
City: Lovingt	solo Habbs	State: NM	Zip:	882	160 8	824	40	At	tn: /	Pili	Russe	1.	1									
Phone #: (57	5) 396-2378	Fax #: (575) :	396-14	429					Idre		/10040											
Project #: 14	966	Project Owne	er: R	11.	R	1		-	ty:				1									
Project Name:	966 Red Hills Recycli n: Mewbourse Oil (	F .1.1	110	1001	e // u	AAEI	2		ate:		Zip:			Ŵ	18							
Project Location	ned Mills Necycli	r lacility					1=		none		zių.		Chloride	FPH (8015M)	BTEX (8021B)							
Sampler Name:	E. M.	ompany						-					P F	<b>8</b>	X							
FOR LAB USE ONLY	Eric Mojica		11		-	MAT	RIX	[Pa	IX #:	ESERV	SAMP	LING	- °	直	E I						- N	
FOR DB ODE ONLY			<u>e</u>				T	T					1		-							
Lab I.D.	Sample I.	D.	(G)RAB OR (C)OMP.	# CONTAINERS	<b>GROUNDWATER</b> WASTEWATER	SOIL	OIL	SLUDGE OTHER :	ACID/BASE:	ICE / COOL OTHER :												
1	FSIeld		C	1		J		T		1	2.9.2	2	1	V	V							
234	FS2013		C	1		1				1	2.9.2	2	1	$\checkmark$	$\checkmark$							
3	FS4e4		C	1		1				1	2.9.20		V	V	1							
4	NWI		С	1		V				1	2.9.20		1	V	1							
54	NW2		С	1		1				1	2.9.2	2	V	V	1							
4	NW3		С	1		V				1	2.9.2.		1	1	V							_
7	NW4		С	1		V				1	2-9-22		V	1	1				-			
8	EWI		C	1		1				V	2.9.2		1	1	V							
9	SWI		С	1		V				1	2.10.2	2	V	V	1							
10	SWa		C	1		V					2.10.2		1	V	1							
Relinquished	Yen v: : (Circle One) 3.6	presental damages, includin of services hereunder by Date: 7 - 9 - 2 2 Time: Date: Time:	Cardinal, Rec	regard ceiv	ine bank	ness into fiether s r: /////	uch ch	ne, loss o sim is ba		or loss of p many of the		y client, its subsidi	ntes, isc. esult: JII: (S:		8 D I	No A	dd'i Pho dd'i Fax henv.c	:#:				
Sampler - UPS	- Bus - Other:	3.10	#1	12		of f	1	les	-	(înit	-									1		



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.9	% 59.5-14	<b>`</b>						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	90.7	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.2	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.0	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	89.6	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.2	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.1	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	87.4	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	88.9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	93.1	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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 13 (H220637-11)

BTEX 8021B	mg,	/kg	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.5	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	94.2	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	83.5	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	82.3	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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 8 (H220637-15)

BTEX 8021B	mg/	/kg	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	87.7	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	90.8	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	93.5	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	89.7	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	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	Analyze	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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.5	% 59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	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	Analyze	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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	88.2	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# **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 SM4500CI-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

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

N	0	Rush	
	•	1	

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

1.12

Company Name	Etech Environmental & Safety Solu	tions,	Inc.			BI	LL TO		-			ANA	LYSI	S REC	UEST		
Project Manager	LAALE CrEAShaw				P.O. #:												
Addresses DO	Box 201				Company	M	lewbourg	12	1								
City: Lovingte	Hobs State: NM 5) 396-2378 Fax #: (575) 3 66 Project Owne Red Hills Recycle Facility Menbourne Oil Company Eric Mojica	Zip:	28260	-88240	Attn: Rob	Shi	e Russi	ols									
Phone #: (575	i) 396-2378 Fax #: (575) 3	396-14	29		Address:	P 4 3											
Project #: 149	Project Owne	r: R.	hhie	Tunte	City:		-										
Project Name:	Red Hill & Roundle Fasting	/10		/ W/ KI ~_	State.		Zip:			(W)	18)						
Project Location	Mal All				Phone #		ampri	-	Chloride	<b>FPH (8015M)</b>	BTEX (8021B)						
Sampler Name:	F. M				Fay #		-		old	H (8	X						
FOR LAB USE ONLY	Crib I logica	TT	1	MATRIX	PRESE	RV.	SAMPLI	NG	0	TP	BTE						
Lab I.D. H27d/37	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS GROUNDWATER	WASTEWATER Soll OIL	OTHER : ACID/BASE ICE /900L	OTHER.	DATE	TIME									
1	SW3	C	1	1	1		2-17-22		1	V	V						
Z	SW4	C	1	11	1		<		1	~	$\checkmark$						
3	SW 5	C	1	1	1		$\boldsymbol{\Sigma}$		1	1	~						
4	SW6	C	1	J	1				1	$\checkmark$	$\checkmark$						
5	SW7	C	1	1	1		$\rangle$		1	1	$\checkmark$						
4	SM 8	C	1	11	1		2		V	$\checkmark$	$\checkmark$						
7	SW9	C	1	1	1		$\rangle$		1	1	$\checkmark$						
8	SW10	C	1	1	J				1	1	$\checkmark$						
9	SWII	C	1	1	1				1	$\checkmark$	1						
10	SW12	C		1	1		/		V	1	~						
analyses. All claims includin service in no event shall Ca iffiliates or successors amin Relinquished By Cui Ma Relinquished By	(Circle One) $3.4c^{\circ}$ C-0	deemed v g without I Cardinal, r Rec Rec	eived E	es made in writing an usiness interruptions,	nd received by Cand , loss of use, or loss <i>n is based</i> opportany	and pro	ED BY:	lierst, its subsidiar	ies. sult: it: S:	C Ye	s 🗆 No	Add	I Phone I Fax #: nv.com			-	
Delivered By: Sampler - UPS FORM-006 Revision 1.0	t Ca			Cool intact Yes Yes Ye No No No ot accept ve			ais)	k written c	hange	es to 5	575-393-2	476	_				

FORM-006 **Revision 1.0** 

112 of 214

Page

		3	1 + 2
ty Solutions, Inc.	BILL TO	ANAL	YSIS REQUEST
	P.O. #:		
	Company: Mentourse		
	Attn: Robbie Runels		
(575) 396-1429	Address:		
Owner: Kobbie Kunnels	City:		
acility	State: Zip:	115N 021	
mpany	Phone #:	x (80	
	Fax #:	CI CI CI	
	TRUCKT OMMELING		
C 1 1	1 2-17-22	1 1 1	
	117		
c I V		111	
CIV	10-)	111	
CII V	1	111	
C     V	to a fast shall be limited in the emutational by the offset for		
rer shall be deemed welved unless made in writing a se, including without limitation, business interruptions	nd received by Certinel willin 30 days after completion of B , loss of use, or loss of profits incurred by client, its subsidier	applicable	
	O o l Phone Re		
35 Autara Received By:			da #.
	(575) 396-1429 towner: Robbie Runnels Facility MATRIX WATRIX WATRIX WATRIX BOOM STREAM C 1 0 C 1 0	NM 88240       393-2476       BILL TO       Py Solutions, Inc.     P.O. #:       Company: Mebourge     Attm: A.bbie wase       NM Zip: 88260     88.240       (575) 396-1429     Address:       Cowner: Robbie Russels     City:       State:     Zip:       Phone #:     Fax #:       Image: State and the state a	NM 88240         393-2476         My Solutions, Inc.       BILL TO       ANAL         NM Zip: 88260 88 240       Company: //e-bourse       Antal         NM Zip: 88260 88 240       Company: //e-bourse       Antal         Company: //e-bourse       Mark       Company: //e-bourse       Antal         NM Zip: 88260 88 240       Russel       City:       City:       City:       City:       State:       Zip:       90 100 80 90 90 91 91 91 91 91 91 91 91 91 91 91 91 91

Page 24 of 24

Released to Imaging: 6/14/2024 3:19:34 PM



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



# 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		/kg	Analyze	d 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	% 69.9-14	0						
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	Analyze	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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	104	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	97.3	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	102 9	59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	99.6	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	97.0	% 59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	99.1	% 59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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 4 @ SURFACE (H220744-07)

BTEX 8021B	mg/	′kg	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	110 9	59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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 4 @ 14' (H220744-08)

BTEX 8021B	mg	/kg	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	108	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	103	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	102	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	113 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	108	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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 2 @ SURFACE (H220744-13)

BTEX 8021B	mg/	′kg	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	110 9	59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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 2 @ 1' (H220744-14)

BTEX 8021B	mg/	'kg	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	118 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	127 9	59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	127	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	121 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	109	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	119 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	122 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	127	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	131 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	124	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	121 9	59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	116 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	114 9	59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	112 9	% 59.5-14	2						

#### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

				Ru	sh				(	CHAIN	-OF	-CU	STO	IA YO	ND A	NAL	YSI	S RE	EQUI	EST	
ARDINAL LABORATORIE 101 East Marland, Hobbs, NM 88 (575) 393-2326 FAX (575) 393-2	3240																1.	f 3			
Company Name: Etech Environmental & Safety Sol	utions	s, In	C.					BI	LL TO					AN	ALYS	IS R	EQUI	EST			
Project Manager: LAACE Creashaw						P.0															
Address: P.O. Box 301 City: Lovington Hobbs State: NM Phone #: (575) 396-2378 Fax #: (575) Project #: 14966 Project Own Project Name: Red Hills Recycle Facility Project Location: Mew bourne Oil Compa Sampler Name: Efic Mojica	Zip 396-1	0: <del>88</del> 1429	260	+ 88a	40	Attr Add	r: Ro	y: M bbie :	en bourg	ls.											
Project #: 14966 Project Own	er: K	200	ie	Kunne	15	City	:					=	â								
Project Name: Ked Hills Keeyele Facility		_				Stat	te:		Zip:		ge	TPH (8015M)	BTEX (8021B)								
Project Location: Mew bourne Oil Compa	07					Pho	ne #	:			Chloride	(80	(80								
Sampler Name: Eric Moiica	-					Fax	#:				ъ	H	Ĕ								
FOR LAB USE ONLY	1.	1		MATE	RIX		PRES	ERV.	SAMPLI	NG		F	ία Ι								
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	OIL	OTHER :	ACID/BASE		DATE	TIME											
1 SP1eJ.f. 2 SP1e2	G						1		2-24-22		1	V	1		_	-		-			
2 SPIe2	G			1			1	1	<		1	1	~			-	-	-			1_
3 sp 20 S., f.	G	1		1	-		1		$\rightarrow$		1	1	$\checkmark$	_	-		-	-			
4 592020	G			1	-		4		$\langle  $		1	1	V	_		-	-	-			-
5 SP 3 e S.f.	G			1	+-		1		$\rightarrow$		1	1	V		-	+	+	-			+
6 SP 30 14'	G			4			1		-		17	V	1		+	+	+	+		-	-
SP40 Juit.	G			1	+		1		-/-		V	V	V			+	+	+			+
8 SP4e 14	G		-	4	1 -						V	~	1	-	+	-	+	+			$\vdash$
9 SP 6 el Suf.	G	H			+		-1		-/-		~	1			+	+	+	+			-
PLEASE NOTE: Liability and Damages. Cardinal's fiability and client's exclusive remedy for	any cla	im arisi	ng wh	hether based in	contract	or tort, s	whall be l	imited to	the amount paid	by the client for	the		V	_	1	_	1	_		-	1
serves In no event shall Cardinal be liable for incidential or consequental darmages, include affiliates or successors arising out of or related to the performance of services hereupder by Relinquished By: Date: Time: Delivered By: (Circle One) 3.1 c C-0	Re	eceiv	ved	Dasiness intern	Conditional Condition	lon	cH	ss of prol ny of the	ED BY:	ient, ils subaicline	ies. n. suit: t: S:	O Ye		> Add	TI Phon TI Fax I	E.	-	-		-	-

Rush

ARDINAL LABORATORI 101 East Marland, Hobbs, NM ( (575) 393-2326 FAX (575) 393	38240														2 -f	3
mpany Name: Etech Environmental & Safety Se		s, In	C.			BI	LL TO		-			ANAL	SIS R	EQUE	ST	
oject Manager: Lance Crenshaw					0. #:											
dress: P.O. Box 301				C	ompany	y: /	leubourn	•								
ty: Lovington Hobbs State: NM	Zip	: 88	200-88240	A	ttn: <b>R.</b>	66;	e Runne	15	1							
one #: (575) 396-2378 Fax #: (575	) 396-1	1429	)	A	ddress:		_	_								
oject #: 14966 Project Ow	ner: R	.66	ic Runnels	Ci	ity:		_		[		-					
oject Name: Red Hills Rocycle Facility				S	ate:		Zip:		e	5M)	218					
oject Location: Me bourse Dil Company	4			PI	none #:				Chloride	801	(80					
one #: (575) 396-2378 Fax #: (575) oject #: 14966 Project Ow oject Name: Red Hills Recycle Facility oject Location: Menobourne Oil Company mpler Name: Eric Mojica	3			Fa	ax #:				Ch	<b>TPH (8015M)</b>	BTEX (8021B)					
OR LAB USE ONLY		1	MATRIX		PRESE	ERV.	SAMPLIN	١G	1	#	81					
	MP		œ				1.0.1									
	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER MASTEWATER Soil													
_ab I.D. Sample I.D.	S OR	TAIN	NDN	· ·	ASE	~										
220-21/1	RAE	NO	GROUNDWATE WASTEWATER SOIL OIL	SLUDGE	ACID/BASE	OTHER										
220744			GR NA NA OIL			1.4	DATE	TIME						+ +		+
11 NHIOS.f.	G	I.		-	1		2.25.22		V	1	1	-+-+		+-+	_	+
12 NH 101 13 NH 205., f.	G	H	1		1				V	4	V					+
IL NU JOL	G	H		+			$\rightarrow$		1	1	1	-++		+ +		-
15 NH 3es.f.	G	H	1	-	1		$\left  \right\rangle$		1	1	1	+ +				1
16 NH 301	G	ĥ	J		J				11	1	1					1
17 EHIOS., f.	G	ĥ	1		J				V	1	1					
18 EH 101'	G	li	J		1				1	V	1					
19 EH 20 Juf.	G	T	1	-	1				1	1	1					
20 EH2e1	G	11	1		11				1	$\checkmark$	1					
ASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy rses. All claims including those for negligence and any other cause whatsoever sha	for any clai	m arisi d web	ing whether based in contr red unless made in writing	and rec	nt, shall be lin shod by Care	mited I	to the amount peid		the applicat	de						
ce. In no event shall Cardinal be liable for incidental or consequential damages, inclutes or successors arising out of or related to the performance of services hereunder.				im is ba	sed upon any	y of the	e above stated reas	ent, ils subeicles son:1 de elbernie	ries, 10.							
linguished By: 2.25.2	2 Re	ceiv	ved By:		DI	21		Phone Re Faix Resul				Add'l Ph Add'l Fa				
hi Mont Time 315	-		Kamake	9 0	XU	U	JA C	REMARK	S:							
linguished By: Date:	Re	cei	ved By:													
Time:							1									
elivered By: (Circle One) 310 C-	0.5	000	Sample Cond	lition	CHI	ECK	ED BY:	Please e	mail r	esults	to pm@	etechenv.	com.			
Impler - UPS - Bus - Other: 2.6c		0	Cool Intact				iais)									

.

ARDINAL LABORATORIE 101 East Marland, Hobbs, NM 8 (575) 393-2326 FAX (575) 393	8240				3.+3	
Company Name: Etech Environmental & Safety So	lutions, Inc.	BILL TO			ANALYSIS REQUEST	
Project Manager: Lance Creashaw		P.O. #:				
Address: P.O. Box 301		Company: Mewbourge				
		Attn: Robbie Runnels				
Phone #: (575) 396-2378 Fax #: (575	396-1429	Address:				
Project #: 14966 Project Own	er: Kobie Kunnels	City:				
Project Name: Red Hills Recycle Faci Project Location: Mewberrae Oil Compa Sampler Name: Esta Matter	ity	State: Zip:	de	BTEX (8021B)		
Project Location: Mewbourne Oil Compa	- y	Phone #:	Chloride	(00 X		
Sampler Name: Eric Mojica	MATRIX	Fax #: PRESERV SAMPLING				
FOR LAB USE ONLY		PRESERV. SAMPLING				
	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SoiL					
Lab I.D. Sample I.D.	(G)RAB OR (C)OF # CONTAINERS GROUNDWATER WASTEWATER SOIL	ш d				
	AB (DUNE)	ACID/BASE				
120744	# COI # COI GROI WAS					
21 SHIOS.F. 32 SHIEL 33 SH2OS.f.	a   /	1 2.25.22	VV	1		
32 SHIEL	GIV	11	VV			_
23 SH 20 Su, f.	al 1		VV	V		_
24 SH201' 25 SH3es.f.	GIV	1	1			
36 SH 301'	GIV	11/1	J V			
27 WHIOS.f.	GIV		1	11		
28 WHIEL	GIV		V	11		
27 WH2 Suf.	GIJ		1			
30 INH201	GIV	1 1	V v			
EASE NOTE: Usually and Damages. Cardinal's liability and client's exclusive remedy f salyses. All claims including those for negligence and any other cause wheteoever shall	er any claim arising whether based in contra be deemed welved unless made in willing	ict or tort, shall be limited to the amount paid by the client f and received by Cardinal within 30 days after completion of	the applicable			
ifiliates or successors arising out of or related to the performance of services hereunder t				N	1.8. 1.111 (5.1	
Relinquished By: Date: 2.25-22	Received By:	Phone R Fax Res	ult: 🗆	Yes No		
Ci Mor 1315	Jamara	REMARK REMARK	(S:			
Date:	Received By:	40				
Time:		Please	omail rocu	ute to nm@	etechenv.com.	
Delivered By: (Circle One) 3.1 C	0.5c Sample Cond	ition CHECKED BY:	cital 1650	and to pring		
Sampler - UPS - Bus - Other: 2.6c	#13 Cool Intact	85				



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



## 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	Analyze	d 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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

<b>F</b>
ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

Company Name: Etech Environmen		ions,	Inc.							BI	11.1	0						AN/	LYS	IS R	EQU	EST		
Project Manager: Lance Creas	thaw								). #:							1								
Address: P.O. Box 301								Cor	mpa	ny: /	Yew		TAC											
City: Lovington- Hobbs	State: NM	Zip:	882	60-9	88	24	0	Attr	n: K.	150	e Ru		ls											
Phone #: (575) 396-2378	Fax #: (575) 39	96-14	129	-			1		ires															
Project #: 14966	Project Owner:	:						City	1:															
Project Name: Red Hills Recarde	Facility						-	Sta			Zip:				(WS	18)								
Project #: 14966 Project Name: Red Hills Recycle Project Location: Mewbourne Of	Contraction						-		one #					Chloride	TPH (8015M)	BTEX (8021B)								
Sampler Name: Eric Mejicon	1 company							Fax						Ř	H	X								
FOR LAB USE ONLY		T	T		MA	TRIX	_	-	Statement of the local division in which the local division in the	SERV.	SA	IPLI	NG		TP	BT								
Lab I.D. Sample I	.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	OIL	OIL	SLUDGE	DTHER :	ACID/BASE	OTHER :	DA	TE	TIME											
1 592021		G	1	01>	5	10	0	4		1	3-1-	-		V	-	1	1	+	1	1	1	-		+
			Ì	1	T	1			X			-			-	1	1	1	1	-	1	1		1
					T	1	-			17		-			-		1	1	1	1				T
					1	T			-															
				-		-			-			_	-											
					_	1	1		-	-		_			-	-	-	-	-	-	-			 -
FARE NOTE LINES AND A SECOND STREET				1		11										-	1	1			1			
EASE NOTE: Liability and Damages. Cardinal's liability and cli- alyses. All claims including those for negligence and any other	cause whatsoever shall be de	oomed v	waived	unioss	mede	in write	ig and	necelu	ed by C	ardinal v	althin 30 da	ys aller	completion of th	e applical	ble									
rvice. In no event shall Cardinal be liable for incidential or conse filiates or successors arising out of or related to the performance	of services hereunder by Ca	rdinal, r	- guin	to acort	whether								sons or otherwis	9	0.20		Ma	1.4.4.4	Dha	- 44			_	
Relinquished By:	Date: 3-1-22 Time: 550 Date:	0	1	ed B M ed B	Ul	are	1	da	Va	lak	log		Phone Re Fax Resul REMARKS	t:			No No		I Phon I Fax #					
Delivered By: (Circle One) 3. Sampler - UPS - Bus - Other:	Time: 2 c) c-o. 3.2 c t	500	23	Sa		s Cor	ct Yes	n	C	(Init	(ED BY tials)		Please e	mail n	result	s to p	m@e	teche	nv.col	m.				

Rush



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



## 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	115 9	% 59.5-14	2						

### Sample ID: NW 14 (H220978-02)

BTEX 8021B	mg,	/kg	Analyze	d 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, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	111 9	% 59.5-14	2						

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	109 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	122 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	127 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	115 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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		Analyze	d 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	% 69.9-14	0						
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	Analyze	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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	124	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	123	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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		Analyze	d 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 9	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	<i>99.7</i>	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Company Name: Etech Environmental & Safety Sol	itions,	Inc.	BILL TO						ANALYSIS	<b>REQUES</b>	T		
Project Manager: Lance Crenshaw			P.O. #:				1	Ι					
Address: P.O. Box 301			Comp	any: N	lawbour	e							
City: Lovington State: NM	-	88260-	Attn:	Robbi	e Runel								
Project Name: Red Hills Recycle Facility Project Location: Me Joeurne Dil Company Sampler Name: Eric Mojica			Addre	SS:									
			City:			-		-					
			State: Zip: Phone #:				Chloride	<b>FPH (8015M)</b>	BTEX (8021B)				
									(80				
Sampler Name: Eric Mojica			Fax #	-			5	H	TEX				
FOR LAB USE ONLY	ď	MATRIX	PR	ESERV	SAMPLI	NG		F	0				
	WO(	S R R		i									
Lab I.D. Sample I.D.	CORAB OR (C)OMP	# CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	SE	8	All and a second s								
4	1	ONTA STEW	OTHER : ACID/BASE	CE 1000	1								
120978	3	# COI GROU WAST SOIL OIL	OTHER : ACID/BAS	ICE 100	DATE	TIME							
(SWI-A	G	1.4		1	3.9.22			1					
ZNW14	G	1 1		1	1		V	1	1				
3 NW 15	G	1 + V.		1-	$\rightarrow$		V	V	1				
4 NW 16	GG			11.	$\left \left\langle \cdot\right\rangle \right $		V	V	V				
CNW 1	G	V- 1		V	$\rightarrow$		V	V	V				
J GW14	G	H- JI		1	$\left  \right\rangle$		J	1	1				
4 SW 15	G			V	17		1	V	1				
9 SW 16	G		-	1	3-10-22		V	1	1				
				1									
ASE NOTE: Liability and Demages. Cardina's liability and client's exclusive revealy for yeas. All claims. Including those for negligence and any other cause whatsoever shall be too. In no event shall Cardinal be liable for incidential or cosessuerabl damages, including	deemed 1	weived unless made in writing a	nd received b	Cardinal v	ulthin 30 days after		e applicat	tile					
time or successors minim out of or related to the performance of services tereusder by	Cardinal, r						e	O Ye	B IN	o Add'l Phone #	k:		
Ein My Times,25	1	odi the	211)	)a	11	Fax Result	t:	C Ye					
	y	and st	The	v l		10_months							
	Dec	ceived By:											
Time: elivered By: (Circle One) 3.1 mpler - UPS - Bus - Other: #113 3.1 FORM-006 † C Revision 1.0	-					Please e	mail n	esults	to pm@	getechenv.com.			
elivered By: (Circle One) 3.0	DG	Sample Cond	tion	CHECK	ED BY:								
mpler - UPS - Bus - Other: #113 - 3	10		es	CV	74								

ł

Page 12 of 12



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



## 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		Analyze	d 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	% 69.9-14	0						
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	Analyze	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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	149	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	150 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	146 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	106	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	103 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	107 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	112 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	83.0	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	81.4	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	79.2	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

	- 1
n	Rush
10	Imore

177 of 214

Page

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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Etech Environ		tions	s, Ind	C.			BI	LL TO		-			AN	ALYSI	S REC	QUEST	
Project Manager: Lance (	reashaw					P.	.0. #:										
ddress: P.O. Box 301						C	ompany: /	1eubo	vrne								
City: Lovington-H.56s Phone #: (575) 396-2378 Project #: 14966 Project Name: Red Hills R Project Location: Mewbov/A	State: NM	Zip	: 88	260-88	240	) A1	ttn: Robbi	e Run	e/s.								
Phone #: (575) 396-2378	Fax #: (575) 3	396-1	1429	)		A	ddress:		-								
Project #: 14966	Project Owne	r: /	P-L	Le R.		CC	ity:			1							
Project Name: Red Hill c R	ecude Facil	; +			arre .	S	-	Zip:			(W)	18					
Project Location: Manhauca	· Al Carrie		1			P	hone #:			Chloride	TPH (8015M)	BTEX (8021B)					
Sampler Name: Eric Moj	VII UMP	*7	-			Fa	ax #:			Chic	H	EX					
FOR LAB USE ONLY		T	T	MA	TRIX		PRESERV.	SAMPL	ING	Ĩ	E .	BT					
Lab I.D. Samp	le I.D.	G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER SOIL	OIL	SLUDGE OTHER :	ACID/BASE ICE / <del>900L</del> OTHER :	DATE	TIME								
1 Ector E	W2	C	1					3-15-22		1	1	1					
2 AMA E	W3	C	1	1	1		1	1		1	1	1					
3 DANKE E	W4	C	1	1	1		1	<		1	1	$\checkmark$					
4 4 10 2	W 5	C	1		1		1			1	1	$\checkmark$					
5 ALATAR	EW6	C	1	V	1	_	V	3.16.22		~	V	V	_	_			-
() (MANY	NW6	C	11	V	/	_	V	3.15.22		1	V	V					-
2 AND A	W7	С	11			-	V			V	V	1		-			
3 WWW W	W8	-	11	V			V	)		V	~	V					
The s	WIL	-	11			-	V	2 11 20		V	1	V			+		
FASE NOTE: Listility and Damanes Cartinols Fability	W 8	-	m arisi	pri whether hees	in contr	ract or to	vt shall be limited to	3.16.22	d by the client for	the	V	V					_
EASE NOTE: Liability and Damages. Cardinal's faibility asyses. All chains including those for negligence and an ruce. In no event shall Cardinal be liable for incidental o liables or successors arising out of or related to the performance cardinal be liable for incidental o liables of successors arising out of or related to the performance cardinal be liable for incidental o liables of successors arising out of or related to the performance cardinal be liable for incidental o liables of successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the successors arising out of or related to the performance cardinal be liable for incidental of the p	r consequental damages, includin mance of services hereunder by: Date: Time: Date: Time:	C C C c c c c c c c c c c c c c c c c c	id waie ut limit d. rega ecei	ed unives made ation, bushases in roless of whether ved By:	i la willing nterruptio er such da	and rec ne, loss r aim is ba	aived by Cardinal wi of use, or loss of pro used upon any of the Additional states of the states of the states and states of the	thin 30 days sfla the incurred by a above stated re	r completion of t	das, se isult: It: S:	□ Ye □ Ye	s IN s IN	lo Add	l'I Phone I'I Phone I'I Fax #:			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	5.9° C- 5.4°	0. #	Se	Sample Cool	e Conc Intac es	t	CHECK (Initi	ais)									



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



## 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	Analyze	d 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	% 69.9-14	0						
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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	92.9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## 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	Analyze	d 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 9	% 69.9-14	0						
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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	100 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	129 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	108 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	255 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	94.0 \$	59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	121 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	91.8	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	111 9	6 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	111 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# **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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose site to the services interruptors, loss of profits incurred by client, its subsidiaries, afflictes or successor arising out of or related to the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

NoRush

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476 Company Name: Etech Environmental & Safety Solutions, Inc.							Τ			BI	LL TO			-			ANALYSIS	REQUE	EST	
Project Manager	: Lance Crens	haw						1	P.O. 1	Ŀ										
	Box 301							-	Company: Mewbourn			Ine	1							
City: Lovington	+ Hobbs	State: NM	Zip:	88	200-	88	24	0	Attn:	Ro	bbie	Runne	15	1						
Phone #: (575) 396-2378 Fax #: (575) 396-1429							Addre					1								
Project #: 149	66	Project Owner:	Ro	66	ie	Rua	rela	- 1	City:					1						
Project Name:	ed Hills Recycl	le Facilit		-					State	:		Zip:			EM)	18				
Project Location	Menberrae 0	il Campai	1						Phon	e #:				Chloride	801	802				
Sampler Name:	ed Hills Recycle Mewbourne O Eric Mosic	in competit	7						Fax #:					Ť	<b>FPH (8015M)</b>	BTEX (8021B)				
FOR LAB USE ONLY						MA	TRIX		PF	RESE	ERV.	SAMPL	ING	1	E	E I				
			MP		œ															
			OR (C)OMP	ERS	ATE	E I				L										
Lab I.D.	Sample I.	.D.	R	AIN	MO	MAT		ш	ASE	đ										
100.01			(G)RAB	# CONTAINERS	GROUNDWATER	WASTEWATER		SLUDGE	OTHER : ACID/BASE	CE / COOL	OTHER									
#221096	0		-	2	8	WAS	ē	SLI	58	Ŭ	Б	DATE	TIME		-					
	DSPlesuf.	the second s	G	1		1		-	-	1		3-18:2	-	1	V	V				
2	DSPle1'	and the second se	G	1		V	-	-	+	1	-	$\rightarrow$		V	V	1	-			
	DSP2es.f.		G	4	-+	1	-	-	+	V	-	-		V	1	V				-
	DSP201		G	4	-+	1		-	+	J	-	$\rightarrow$		1V	1V	V				+ - 1
	DSP3eSuff. DSP3e8		G			1	+-	-	+	V	-	$\leftarrow$		V	1		-			
9	DSP4esuf.		G	1	-	1	+	-	+	1	-	$\rightarrow$		V /	V					+-+
é l	DSP404		1	1		1	1	-	+	V	-	$\leftarrow$		1×	V/	1				+ +
9	DSP Sesurf.		7	1			+	+	+	V	-	$\rightarrow$		1	V		-			+-+
112	DSP5e8		5	1		J		-	+	V		<		V	V	1	-			+ +
	Demeges. Cardinal's liability and clic																			
service. In no event shall Car	) those for negligence and any other vinal be liable for incidental or conse out of or related to the performance	quental damages, including v	dhout	limite	lion, bu	sinees i	demupli	ores, los	n of une	or los	n of pr	offic incurred by a								
Relinquished By	out of or restance to the performance	the second se	the second division of	-	ed		e autori c	COMPACT PRO		1	/	1/	Phone Re	_				Add'l Phone #:		
P.m		Time:			40	1111	n1. 1	1			r/	Lad	Fax Resu REMARK		1 Ye		NO	Add'i Fax #:		
Relinguished By	5	Date:	Rei	celv	ed E		na	0	LU	0	1	yc_								
											/	/								
		Time:	_										Please e	mail r	esults	to pm(	@ete	chenv.com.		
Delivered By:	(Circle One) 5.7	2 C-0.	50				e Con		n	CH	ECK (Initi	ED BY:								
Sampler - UPS	Bus - Other:	5.2° #	11=	3		TYe	50	Yes		7	E	>								

Page 190 of 214

Released to Imaging: 6/14/2024 3:19:34 PM



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 <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	123 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	120	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	144	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	119 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	130 \$	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	120 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	134	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# 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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	118 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# **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

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

4
T
Ъ
4
4
d
கீ
1
ш

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Etech Environmental & Safety Solutions, Inc.			Inc	in and in the second	and the state of the		BILL TO ANALYSIS REQUEST												
Project Manager: Lance Creashaw Address: P.O. Box 301				P.O.	P.O. #:					1		T			T	1			
				Company: Menbourne Attn: Robbie Romals				and a management											
hone #: (57						Address:													
roject #: 149	Project Own	er: 8	4in	Rul		City:			-		and the second se								
roject Name:	Red Hall & Rousele Facility		510	Adel		State		7	ip:			(W)	18)						
roject Locatio	Red Hills Recycle Facility n: Mewbourne Oil Company		-		-		-	4			Chloride	TPH (8015M)	BTEX (8021B)						
ampier Name	Eric Mojien			11+1	3	Phone #:				hlo	1 (8)	X							
FOR LAB USE ONLY	Criellojien	TT	1	MAT	TRIX	Fax	RESER	VI	SAMPLI	NG	0	TPF	JTE						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER SOIL	OIL			OTHER :	DATE	TIME									
1	DSPGeSuf.	G	ī	11			1		3-21-22		1	1	1						T
2	DSPbeSuff. DSPbelo	G	1	1		-	1	T	2		~	1	1						
3	DSP7eSuit.	G	1	1	1		1	-	>		~	V	V						1
4	DSP 70 14	G	11	1			1	1	<		5	1	1						
5	DSP8eS.f.	G	1	1			1				~	1	1						
6	DSP8e8	G	1	1			V		<		~	1	1						
7	DSP90Suff.	G		1			1		$\rangle$		~	1	1						T
8	DSP9e8'	G		1			V		/		5	1	$\checkmark$						
							1	Γ											
								T											T
	nd Damages. Cardinal's liability and client's exclusive remody fo ng those for negligence and any other cause whateoever shall b											80							
tes or successors miei	ardinal ice listite for incidental or consequental demages, includ ing out of or related to the performance of services hereunder b	Cardinal, re														-			
linguished B	v: Date: 3-2/-22	Rec	eiv	ed By:		1	11	1		Phone Res Fax Result		O Ye			Phone Fax #:	#:	-	-	
In May	Time		1	num	1	1/1	In	01		REMARKS		1.1	-						
linquished B	y: Date:	Ret	eivi	ed By:	a	Xil	ay	X	Je										
	Time:	1							-										
alivered Du		0.5	0	Sample	Conditi	0.0	CHE	WER		Please er	mail re	esults	to pm	@etecher	nv.com				
	510000		1.1	Cool	Intact		CHEC (Ir	itiak											
ampler - UPS	- Bus - Other: 3.3 e	4	2	Yes	- Tes	5	AQ	2											

No Rush

201 of 214

ARDINAL LABORATORIES

# Appendix G Regulatory Correspondence

From:	Ben Arguijo
То:	"ocd.enviro@state.nm.us"
Cc:	<u>"ocd.environmental@state.nm.us"; Lance Crenshaw; "Robbie Runnels"; "Connor Walker"; "Hamlet, Robert, EMNRD"</u>
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 \_\_\_\_\_\_

2507 79<sup>th</sup> 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

Environmental & Safety Solution

2507 79<sup>th</sup> St., Unit A Lubbock, TX 79423-2211 (432) 813-1592

From:	Hamlet, Robert, EMNRD
То:	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

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

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 (<u>lance@etechenv.com</u>).

Thank you for your time and consideration.

Respectfully, Ben J. Arguijo

# Ben J. Arguijo

Project Manager



2507 79<sup>th</sup> 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' <<u>ocd.enviro@state.nm.us</u>>
Cc: 'ocd.environmental@state.nm.us' <<u>ocd.environmental@state.nm.us</u>>; Lance Crenshaw
<<u>lance@etechenv.com</u>>; 'Robbie Runnels' <<u>rrunnels@mewbourne.com</u>>
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

Environmental & Safety Solutions, Inc.

2507 79<sup>th</sup> St., Unit A Lubbock, TX 79423-2211 (432) 813-1592

# **Total Control Panel**

To: <u>bena@etechenv.com</u> From: robert.hamlet@state.nm.us Message Score: 50 My Spam Blocking Level: High

<u>Block</u> this sender <u>Block</u> state.nm.us High (60): Pass Medium (75): Pass <u>Login</u>

Low (90): Pass

This message was delivered because the content filter score did not exceed your filter level.

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

Operator:		OGRID:
MEWBOURN	E OIL CO	14744
P.O. Box 5270		Action Number:
Hobbs, NM 8	8241	352919
		Action Type:
		[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

#### QUESTIONS Proroquisitos

Frerequisites	
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	Νο		
Has this release endangered or does it have a reasonable probability of endangering public health	Νο		
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.

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** (continued)

Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270	Action Number:
Hobbs, NM 88241	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 s	afety 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.			
	ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation 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 require 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 b 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			

QUESTIONS, Page 2

Action 352919

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** (continued)

Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270	Action Number:
Hobbs, NM 88241	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 elease discovery date. What is the shallowest depth to groundwater beneath the area affected by the Between 100 and 500 (ft.) release in feet below ground surface (ft bgs)

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 th	at apply or are indicated. This information must be provided to the	he 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 de	monstrating 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 vertica	l extents of contamination been fully delineated	Yes
Was this release entirely co	ontained within a lined containment area	No
Soil Contamination Sampling	: (Provide the highest observable value for each, in mill	igrams per kilograms.)
Chloride	(EPA 300.0 or SM4500 CI 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
	IMAC unless the site characterization report includes completed elines for beginning and completing the remediation.	efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
On what estimated date wi	Il the remediation commence	02/08/2022
On what date will (or did) th	ne 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 surfa	ace area (in square feet) that will be reclaimed	49400
What is the estimated volur	me (in cubic yards) that will be reclaimed	8800
What is the estimated surfa	ace area (in square feet) that will be remediated	49400
What is the estimated volur	ne (in cubic yards) that will be remediated	12500
These estimated dates and measu	rements 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 propose	d remediation measures may have to be minimally adjusted in ac	cordance 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.

Page 210 of 214

QUESTIONS, Page 3

Action 352919

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

Page 211 of 214

QUESTIONS, Page 4

Action 352919

QUESTIONS (continued)	
Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270	Action Number:
Hobbs, NM 88241	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 This remediation will (or is expected to) utilize the following processes to remediate	
(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 ef which includes the anticipated timelines for beginning and completing the remediation.	forts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
to report and/or file certain release notifications and perform corrective actions for relea the OCD does not relieve the operator of liability should their operations have failed to a	knowledge and understand that pursuant to OCD rules and regulations all operators are required ases which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t 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.	

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, Page 5

Action 352919

Page 212 of 214

QUESTIONS (continued)	
Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270	Action Number:
Hobbs, NM 88241	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
	ately under or around production equipment such as production tanks, wellheads and pipelines where may be deferred with division written approval until the equipment is removed during other operations, or when
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 ef which includes the anticipated timelines for beginning and completing the remediation.	forts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
to report and/or file certain release notifications and perform corrective actions for relea the OCD does not relieve the operator of liability should their operations have failed to a	nowledge and understand that pursuant to OCD rules and regulations all operators are required uses which may endanger public health or the environment. The acceptance of a C-141 report by idequately investigate and remediate contamination that pose a threat to groundwater, surface is does not relieve the operator of responsibility for compliance with any other federal, state, or Name: Connor Walker
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 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, Page 6

Action 352919

Page 213 of 214

**QUESTIONS** (continued) Operator: OGRID: MEWBOURNE OIL CO 14744 P.O. Box 5270 Action Number Hobbs, NM 88241 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. No

Requesting a remediation closure approval with this submission

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270	Action Number:
Hobbs, NM 88241	352919
	Action Type:
	[C-141] Deferral Request C-141 (C-141-v-Deferral)

#### CONDITIONS Created By Condition Condition Date 6/14/2024 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.

Action 352919

CONDITIONS

Page 214 of 214