State of New Mexico
Oil Conservation Division

Incident ID	nAPP2222238377
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	205 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☑ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☑ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2222238377
District RP	
Facility ID	
Application ID	

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

Printed Name: Connor Walker Title: Sr. Engineer

Signature:  Date: 10/20/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 10/20/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2222238377
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Connor Walker Title: Sr. Engineer

Signature:  Date: 10/20/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 10/20/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 11/17/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

Remediation Summary & Soil Closure Request

Mewbourne Oil Company
Red Hills West 22 4" SWD Line
Lea County, New Mexico
Unit Letter "D", Section 22, Township 26 South, Range 32 East
Latitude 32.035169 North, Longitude 103.671224 West
NMOCD Reference No. nAPP2222238377

Prepared By:

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

Ben J. Arguijo

Lance Crenshaw

ETECH Environmental & Safety Solutions, Inc.

Midland • San Antonio • Lubbock • Hobbs • Lafayette

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this *Remediation Summary & Soil Closure Request* for the release site known as the Red Hills West 22 4" SWD Line (henceforth, "Red Hills West 22"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.035169 Longitude: -103.6712240

Provided GPS are in WGS84 format.

Site Name:	Red Hills West 22 4" SWD Line	Site Type:	Pipeline
Date Release Discovered:	7/26/2022	API # (if applicable):	N/A

Unit Letter	Section	Township	Range	County
"D"	22	26S	32E	Lea

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

Nature and Volume of Release

[ ] Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
[X] Produced Water	Volume Released (bbls) 80	Volume Recovered (bbls) 10
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	[X] Yes [ ] No [ ] N/A
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:
A third party struck a 4" poly line while grading a road.

Initial Response

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

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

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Red Hills West 22 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.

	205'
What is the shallowest depth to groundwater beneath the area affected by the release?	
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 West 22 release site are as follows:

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

* Measured in milligrams per kilogram (mg/kg)
† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).
‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 INITIAL SITE ASSESSMENT

On October 6, 2022, Etech conducted an initial site assessment. During the initial site assessment, a test trench (TT1) was advanced within the release margins in an effort to determine the vertical extent of impacted soil. During the advancement of the test trench, soil samples were collected and field-screened for the presence of Volatile Organic Compounds (VOCs) utilizing olfactory/visual senses and/or concentrations of chloride utilizing a Hach Quantab® chloride test kit. The trench was advanced in one (1) foot increments until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards.

Based on field observations and field test data, four (4) delineation soil samples (TT1 @ Surf., TT1 @ 1', TT1 @ 2', and TT1 @ 3') were submitted to a certified, commercial laboratory (henceforth, "the laboratory") for analysis of BTEX, TPH, and chloride. Based on laboratory analytical results, the vertical extent of impacted soil was adequately defined, and soil was not affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards beyond two (2) feet below ground surface (bgs) in the area characterized by test trench TT1.

The location of the test trench is depicted in Figure 3, "Site & Sample Location Map".

5.0 REMEDIATION ACTIVITIES SUMMARY

On October 11, 2022, remediation activities commenced at the release site. In accordance with NMOCD regulatory guidelines, soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and/or a chloride test kit were utilized to field-screen the vertical and horizontal extent of impacted soil and to guide the excavation. The sidewalls and floor of the excavation were advanced until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards.

On October 11, 2022, Etech collected five (5) confirmation soil samples (NSW, ESW, SSW, WSW, and FL1) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory method detection limit (MDL). Chloride concentrations ranged from less than the laboratory MDL in soil samples WSW and FL1 to 48.0 mg/kg in soil sample NSW.

On October 13, 2022, Etech advanced a series of hand-augered soil bores (SP1, SP2, and SP3) outside the inferred edges of the release in an effort to confirm that horizontal delineation of the affected area had been adequately achieved. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for the presence of VOCs utilizing olfactory/visual senses and/or concentrations of chloride utilizing a chloride test kit. The soil bores were advanced in one (1) foot increments until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards.

Based on field observations and field test data, six (6) delineation soil samples (SP1 @ Surface, SP1 @ 1 ft, SP2 @ Surface, SP2 @ 1 ft, SP3 @ Surface, and SP3 @ 1 ft) were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical results, the horizontal extent of impacted soil was adequately defined, and soil was not affected above background concentrations in the areas characterized by sample points SP1, SP2, and SP3.

The final dimensions of the excavated area were approximately five (5) feet in length, five (5) feet in width, and two (2) feet in depth. During the course of remediation activities, Etech transported approximately 20 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 20 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

Soil sample locations and the extent of the excavated area are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data and a soil profile log are provided in Appendix B. Laboratory analytical reports are provided in Appendix C. General photographs of the release site are provided in Appendix D.

6.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

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

7.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate in-situ concentrations of BTEX, TPH, and chloride are below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Mewbourne Oil Company provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request closure be granted to the Red Hills West 22 release site.

8.0 LIMITATIONS

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

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

9.0 DISTRIBUTION

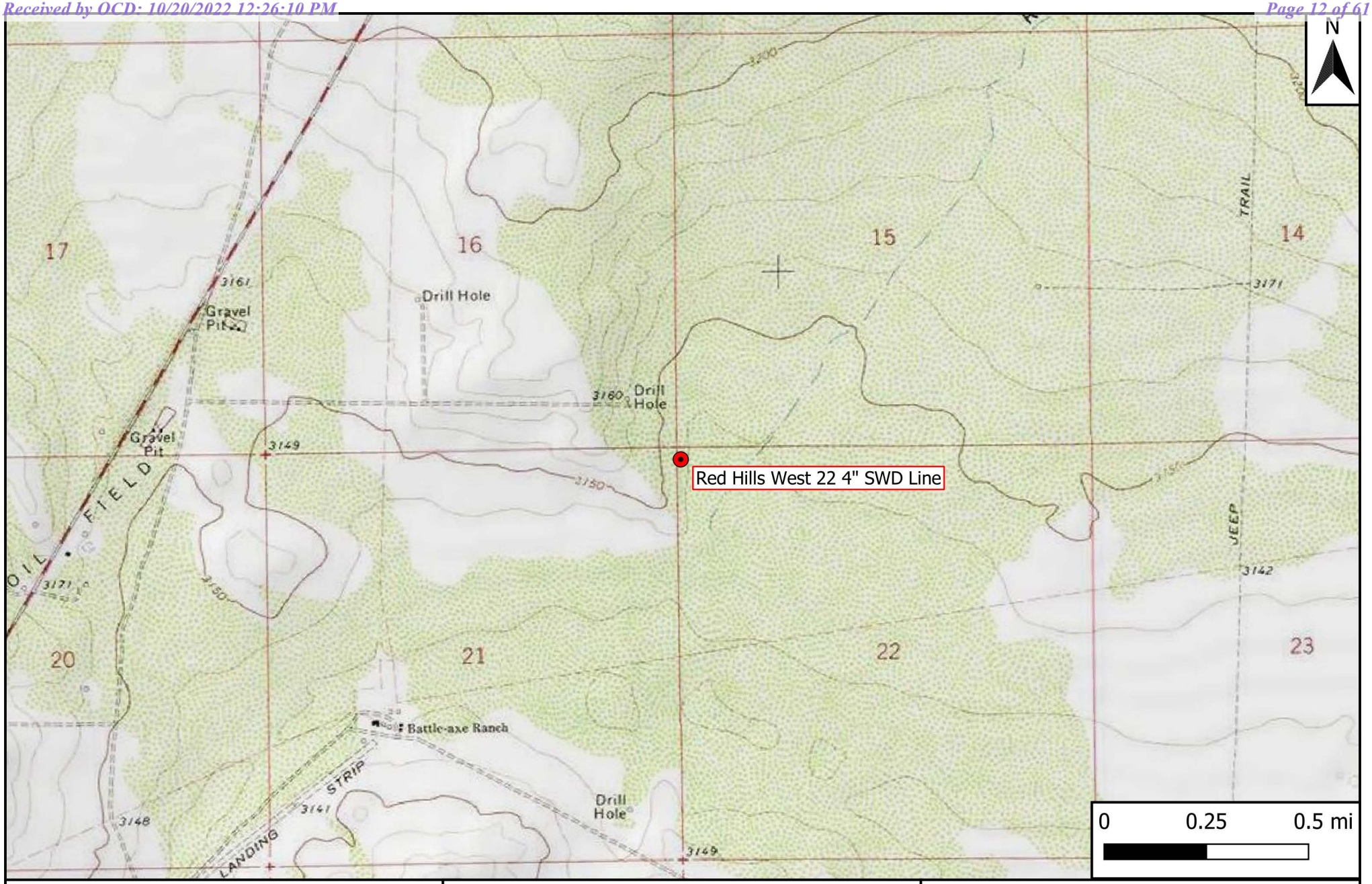
Mewbourne Oil Company
4801 Business Park Blvd.
Hobbs, NM 88240

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

Merchant Livestock Company
P.O. Box 1105
Eunice, NM 88231

(Electronic Submission)

Figure 1
Topographic Map



Legend

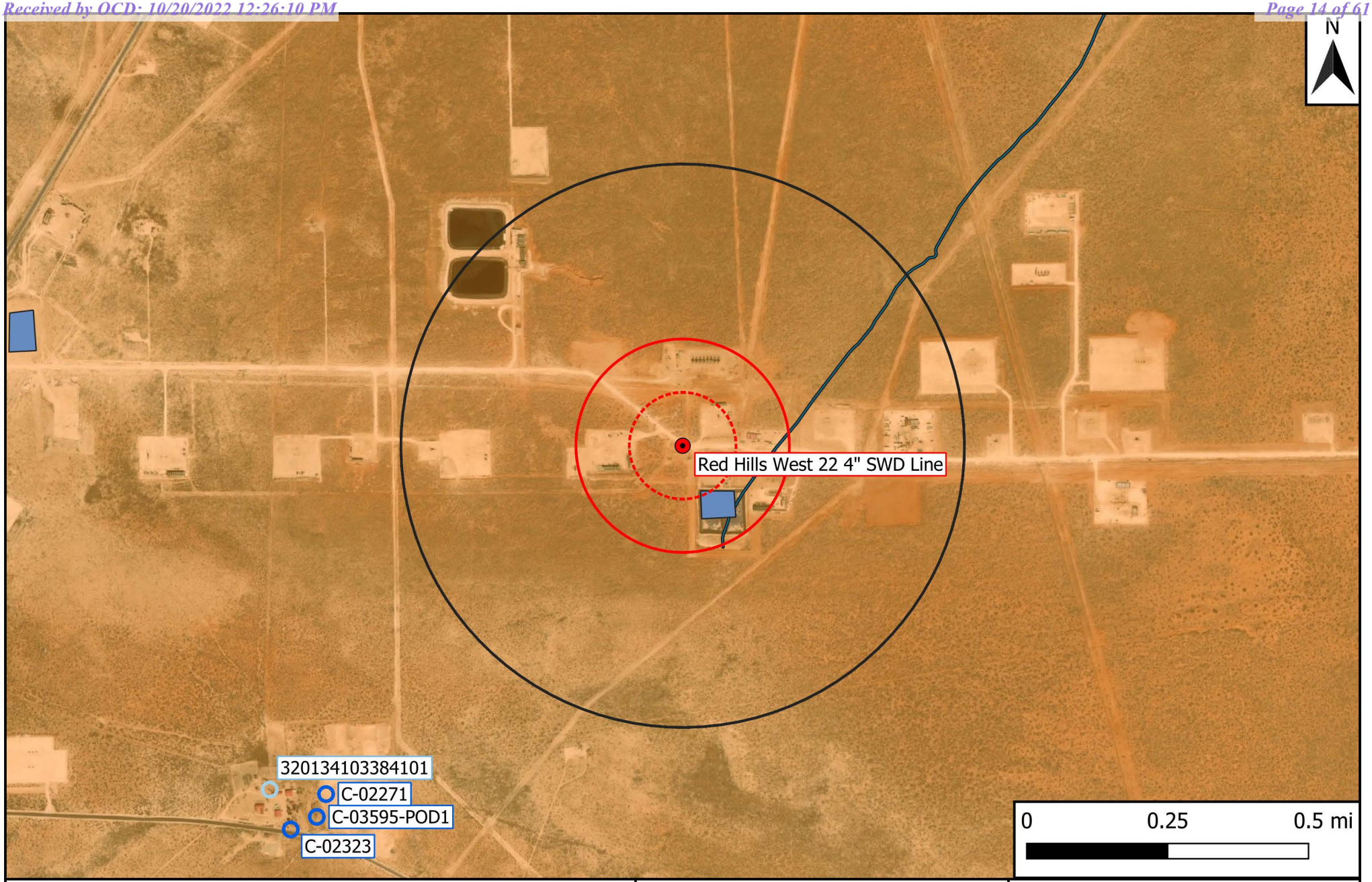
- Site Location

Figure 1
Topographic Map
Mewbourne Oil Company
Red Hills West 22 4" SWD Line
32.035169,-103.671224
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: lc Date: 10/12/22

Figure 2
Site Characterization Map



Legend

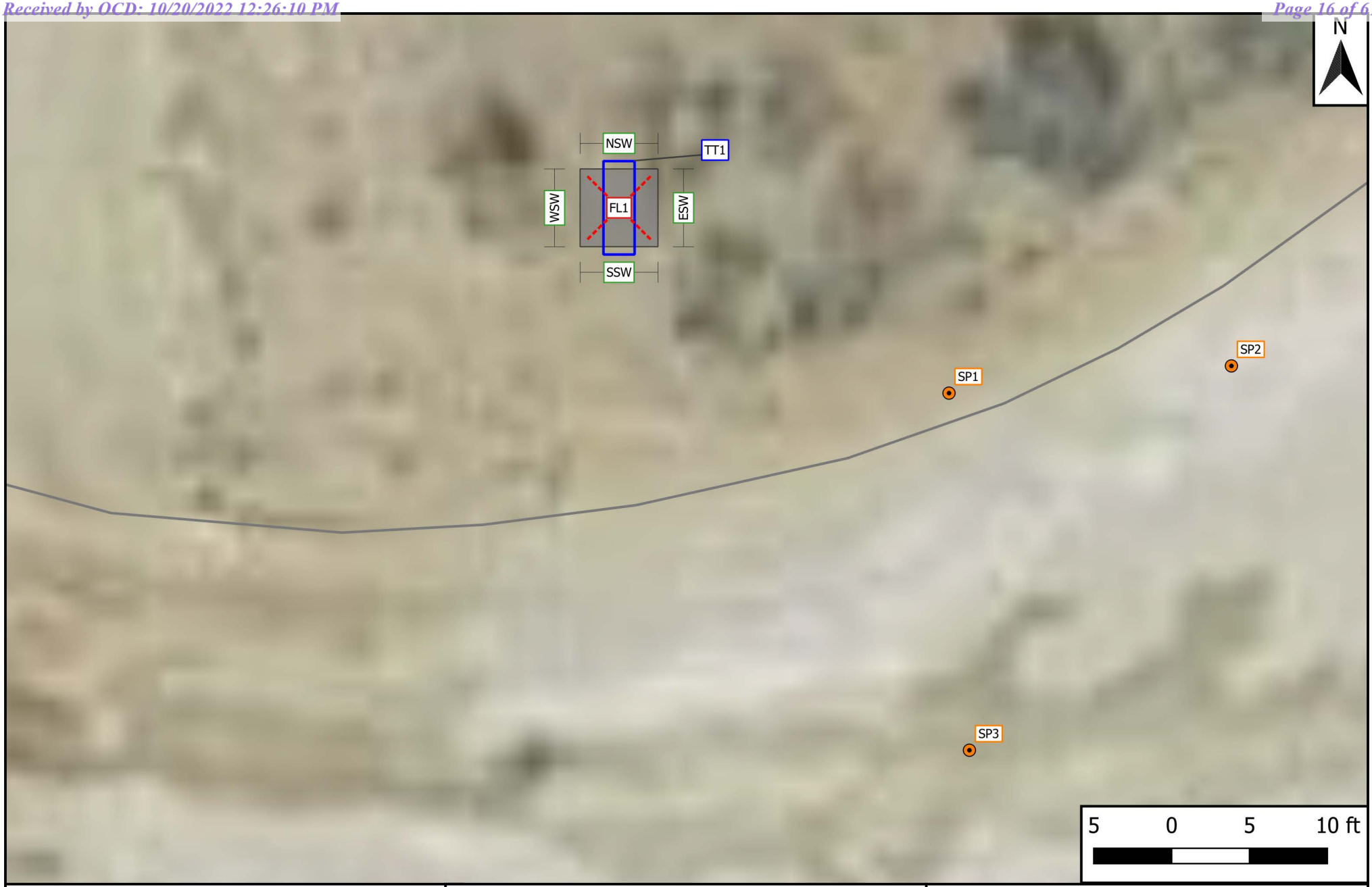
- Site Location
- Well - NMOSE
- Well - USGS
- Well - Exploratory/Monitor
- Potash Mine Workings
- 1% Annual Flood Chance
- Emergent/Forested Wetlands
- Freshwater Pond/Lake
- Karst Potential (Low/Med./High)
- Riverine
- 500-Ft Radius
- 1,000-Ft Radius
- 0.5-Mi Radius
- Municipal Boundary

Figure 2
Site Characterization Map
Mewbourne Oil Company
Red Hills West 22 4" SWD Line
32.035169,-103.671224
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: lc Date: 10/12/22

Figure 3
Site & Sample Location Map



Legend

- Excavation Extent
- Test Trench
- Access Road
- Composite Floor Sample
- Composite Wall Sample
- Delineation Sample

Figure 3
Site & Sample Location Map
Mewbourne Oil Company
Red Hills West 22 4" SWD Line
32.035169,-103.671224
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: lc Date: 10/19/22

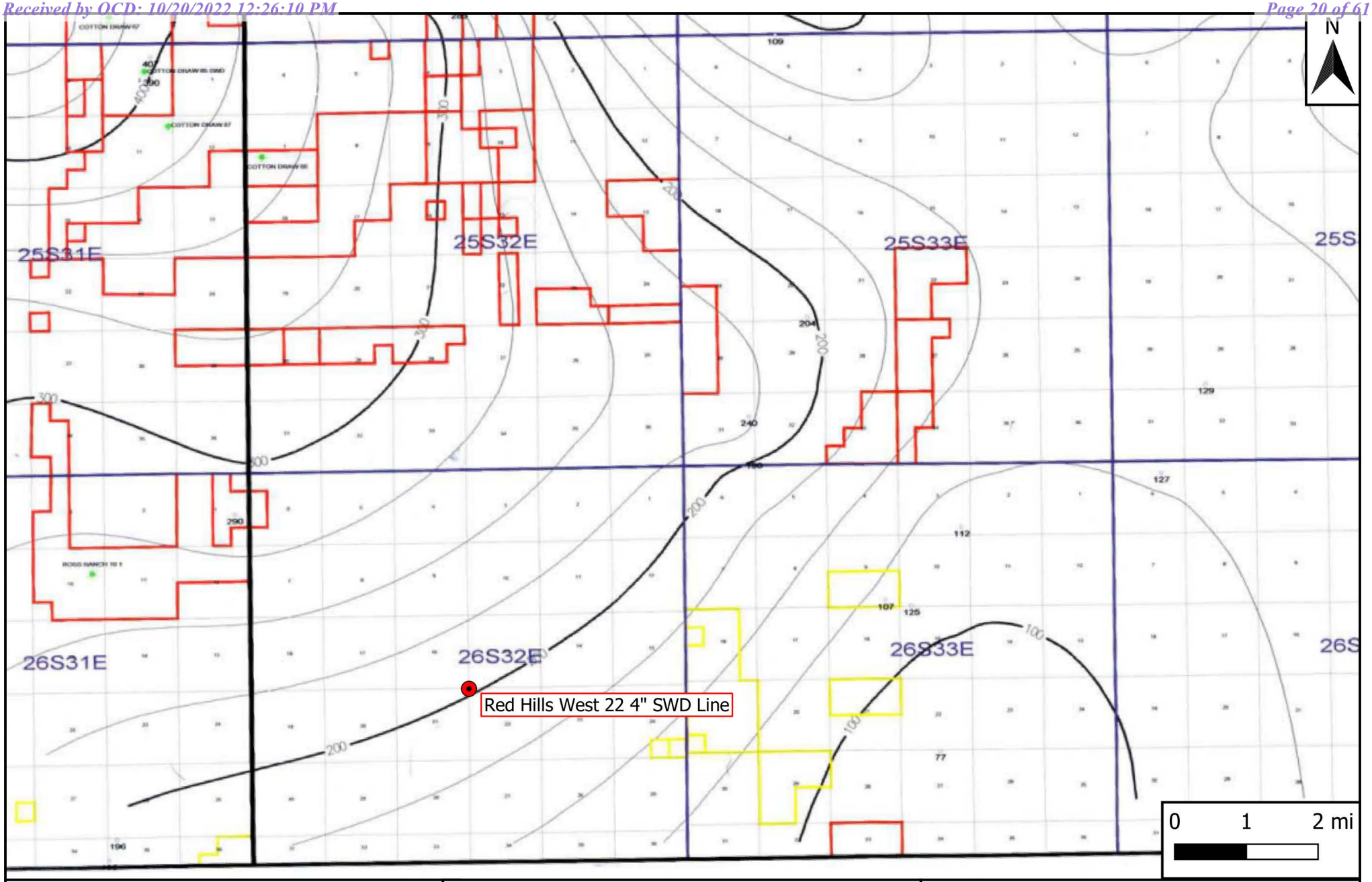
Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Table 1
Concentrations of BTEX, TPH & Chloride in Soil
Mewbourne Oil Company
Red Hills West 22 4" SWD Line
NMOCD Ref. #: nAPP2222238377

NMOCD Closure Criteria				**10**	**50**	**N/A**	**N/A**	**N/A**	**N/A**	**100**	**600**
NMOCD Reclamation Standard				**10**	**50**	**N/A**	**N/A**	**N/A**	**N/A**	**100**	**600**
				SW 846 8021B		**SW 846 8015M Ext.**					**4500 Cl**
Sample ID	**Date**	**Depth (Feet)**	**Soil Status**	**Benzene (mg/kg)**	**BTEX (mg/kg)**	**GRO C_6-C_{10} (mg/kg)**	**DRO C_{10}-C_{28} (mg/kg)**	**GRO + DRO C_6-C_{28} (mg/kg)**	**ORO C_{28}-C_{36} (mg/kg)**	**TPH C_6-C_{36} (mg/kg)**	**Chloride (mg/kg)**
Delineation Samples											
TT1 @ Surf.	10/6/2022	0	Excavated	<0.050	<0.300	<10.0	14.3	14.3	<10.0	14.3	**768**
TT1 @ 1'	10/6/2022	1	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	**944**
TT1 @ 2'	10/6/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
TT1 @ 3'	10/6/2022	3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SP1 @ Surface	10/13/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
SP1 @ 1 ft	10/13/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SP2 @ Surface	10/13/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SP2 @ 1 ft	10/13/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SP3 @ Surface	10/13/2022	0	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SP3 @ 1 ft	10/13/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
Excavation Samples											
NSW	10/11/2022	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
ESW	10/11/2022	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SSW	10/11/2022	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
WSW	10/11/2022	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
FL1	10/11/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0

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

Appendix A
Depth to Groundwater Information



Legend

- Site Location

Figure 4

Inferred Depth to Groundwater Trend Map
Mewbourne Oil Company
Red Hills West 22 4" SWD Line
32.035169,-103.671224
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: lc Date: 10/12/22

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

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02271	R	CUB	LE		2	3	21	26S	32E	624449	3544111*	1423	150	125	25
C 03595 POD1		CUB	LE	4	2	3	21	26S	32E	624423	3544045	1487	280	180	100
C 02271 POD2		CUB	LE	3	2	3	21	26S	32E	624348	3544010*	1566	270	250	20
C 02323		C	LE	3	2	3	21	26S	32E	624348	3544010*	1566	405	405	0

Average Depth to Water: **240 feet**

Minimum Depth: **125 feet**

Maximum Depth: **405 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 625467 **Northing (Y):** 3545105.73 **Radius:** 1610

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

10/19/22 2:29 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02271 POD2	3	2	3	21	26S	32E	624348	3544010*

Driller License:	208	**Driller Company:**	VAN NOY, W.L.		
Driller Name:	W.L. VAN NOY				
Drill Start Date:	08/28/1992	**Drill Finish Date:**	09/09/1992	**Plug Date:**	
Log File Date:	10/28/1992	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:	SUBMER	**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	6.38	**Depth Well:**	270 feet	**Depth Water:**	250 feet

Water Bearing Stratifications:	Top	Bottom	Description
	225	265	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	205	265

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 03595 POD1	4	2	3	21	26S	32E	624423	3544045

Driller License: 1654 **Driller Company:** NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC

Driller Name:

Drill Start Date: 09/30/2013 **Drill Finish Date:** 09/30/2013 **Plug Date:**

Log File Date: 10/29/2013 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 6.00 **Depth Well:** 280 feet **Depth Water:** 180 feet

Water Bearing Stratifications:	Top	Bottom	Description
	160	200	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	200	240

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02271 POD2	3	2	3	21	26S	32E	624348	3544010*

Driller License:	208	**Driller Company:**	VAN NOY, W.L.		
Driller Name:	W.L. VAN NOY				
Drill Start Date:	08/28/1992	**Drill Finish Date:**	09/09/1992	**Plug Date:**	
Log File Date:	10/28/1992	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:	SUBMER	**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	6.38	**Depth Well:**	270 feet	**Depth Water:**	250 feet

Water Bearing Stratifications:	Top	Bottom	Description
	225	265	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	205	265

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

New Mexico Office of the State Engineer

Point of Diversion Summary

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

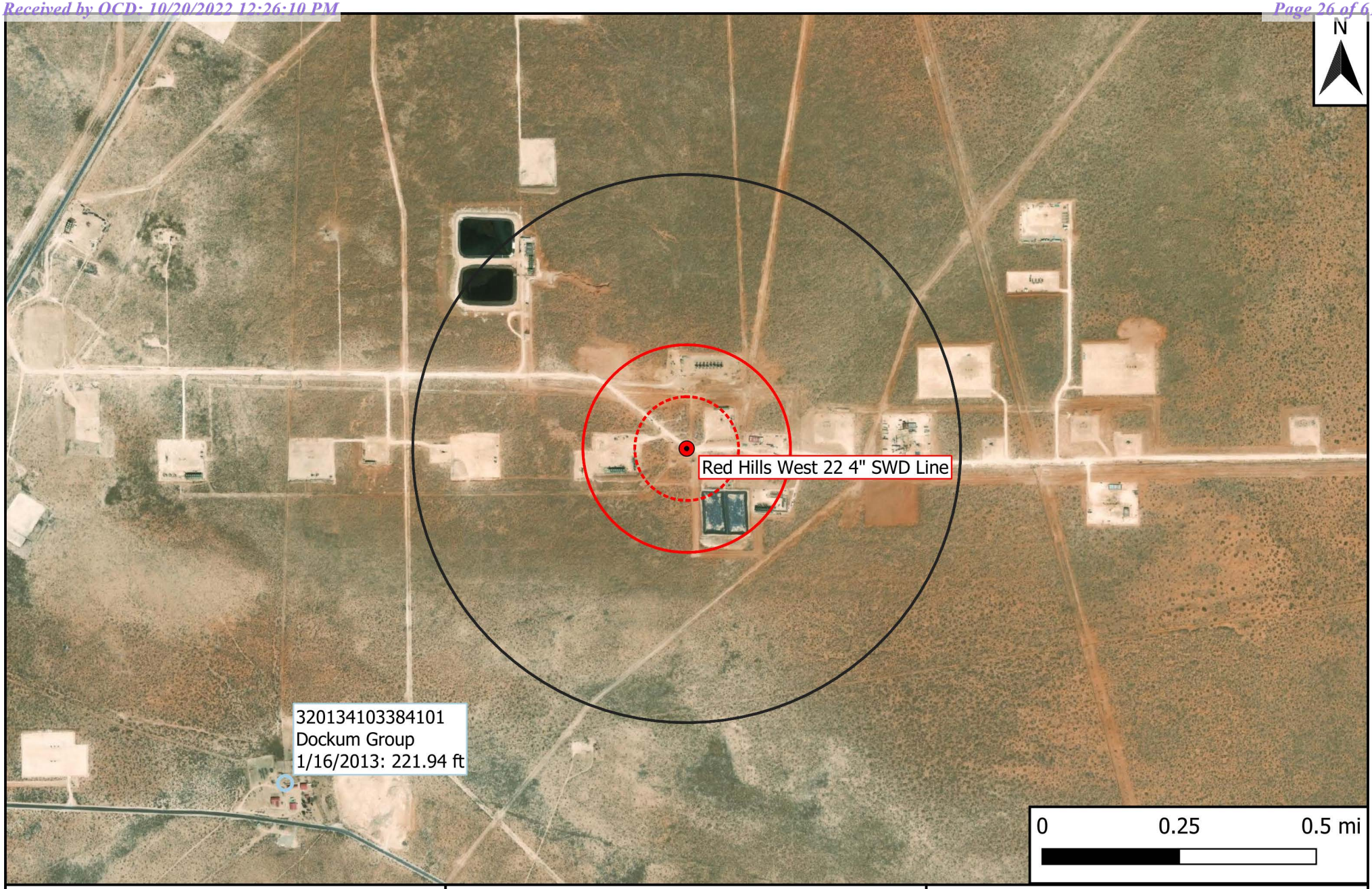
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02323	3	2	3	21	26S	32E	624348	3544010*

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

Driller Name: BENTLE, BILLY L.

Drill Start Date:	05/25/1993	**Drill Finish Date:**	06/16/1993	**Plug Date:**	
Log File Date:	06/24/1993	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	405 feet	**Depth Water:**	405 feet

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



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

Figure 5
USGS Well Proximity Map
Mewbourne Oil Company
Red Hills West 22 4" SWD Line
32.035169,-103.671224
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: lc Date: 10/12/22

Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320134103384101

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

USGS 320134103384101 26S.32E.21.32311

Lea County, New Mexico
Latitude 32°01'35.2", Longitude 103°41'01.8" NAD83
Land-surface elevation 3,130 feet above NAVD88
The depth of the well is 405 feet below land surface.
The depth of the hole is 405 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Dockum Group (231DCKM) local aquifer.

Output formats

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

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

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	L	Interpreted from geophysical logs.
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Appendix B
Field Data & Soil Profile Logs

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date:

Project: Red Hills West 22 4-Inch SWD Line

Project Number: 16818 Latitude: 32.035169 Longitude: -103.671224

Sample ID	PID/Odor	Chloride Conc.	GPS
TT1@Surf.	–	1,072	
TT1@1'	–	992	
TT1@2'	–	144	
TT1@3'	–	<120	

Sample Point = SP #1 @ ## etc
Floor = FL #1 etc
Sidewall = SW #1 etc

Test Trench = TT #1 @ ##
Refusal = SP #1 @ 4'-R
Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b
Stockpile = Stockpile #1
GPS Sample Points, Center of Comp Areas

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Project: Red Hills West 225 kV Line Date: 10-11-22

Project Number: 16414 Latitude: Longitude:

Sample ID	PID/Odor	Chloride Conc.	GPS
RSW	none	1.6 172	
ESW		2.0 188	
SSW		2.2 216	
WSW		1.8 = 160	
BFL1		20 184	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

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

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

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

eTECH Environmental & Safety Solutions, Inc.

Soil Profile

Date:

Project: Red Hills West 22 4-Inch SWD Line

Project Number: 16818 Latitude: 32.035169 Longitude: -103.671224

Depth (ft. bgs)	Description
1	Sand - caliche
2	hard sand
3	sand
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
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Appendix C
Laboratory Analytical Reports

CARDINAL Laboratories

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

October 11, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS 22 SWD LINE

Enclosed are the results of analyses for samples received by the laboratory on 10/06/22 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/06/2022	Sampling Date:	10/06/2022
Reported:	10/11/2022	Sampling Type:	Soil
Project Name:	RED HILLS 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16816	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: TT 1 @ SURF (H224700-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/10/2022	ND	2.02	101	2.00	0.565	
Toluene*	<0.050	0.050	10/10/2022	ND	2.17	109	2.00	1.74	
Ethylbenzene*	<0.050	0.050	10/10/2022	ND	2.00	99.8	2.00	1.61	
Total Xylenes*	<0.150	0.150	10/10/2022	ND	6.02	100	6.00	2.08	
Total BTEX	<0.300	0.300	10/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.8 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**768**	16.0	10/11/2022	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/10/2022	ND	211	105	200	1.32	
DRO >C10-C28*	**14.3**	10.0	10/10/2022	ND	222	111	200	3.11	
EXT DRO >C28-C36	<10.0	10.0	10/10/2022	ND					

Surrogate: 1-Chlorooctane *109 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *116 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/06/2022	Sampling Date:	10/06/2022
Reported:	10/11/2022	Sampling Type:	Soil
Project Name:	RED HILLS 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16816	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: TT 1 @ 1' (H224700-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/10/2022	ND	2.02	101	2.00	0.565	
Toluene*	<0.050	0.050	10/10/2022	ND	2.17	109	2.00	1.74	
Ethylbenzene*	<0.050	0.050	10/10/2022	ND	2.00	99.8	2.00	1.61	
Total Xylenes*	<0.150	0.150	10/10/2022	ND	6.02	100	6.00	2.08	
Total BTEX	<0.300	0.300	10/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**944**	16.0	10/11/2022	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/10/2022	ND	211	105	200	1.32	
DRO >C10-C28*	<10.0	10.0	10/10/2022	ND	222	111	200	3.11	
EXT DRO >C28-C36	<10.0	10.0	10/10/2022	ND					

Surrogate: 1-Chlorooctane *106 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *113 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/06/2022	Sampling Date:	10/06/2022
Reported:	10/11/2022	Sampling Type:	Soil
Project Name:	RED HILLS 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16816	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: TT 1 @ 2' (H224700-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/10/2022	ND	2.02	101	2.00	0.565	
Toluene*	<0.050	0.050	10/10/2022	ND	2.17	109	2.00	1.74	
Ethylbenzene*	<0.050	0.050	10/10/2022	ND	2.00	99.8	2.00	1.61	
Total Xylenes*	<0.150	0.150	10/10/2022	ND	6.02	100	6.00	2.08	
Total BTEX	<0.300	0.300	10/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	10/11/2022	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/10/2022	ND	211	105	200	1.32	
DRO >C10-C28*	<10.0	10.0	10/10/2022	ND	222	111	200	3.11	
EXT DRO >C28-C36	<10.0	10.0	10/10/2022	ND					

Surrogate: 1-Chlorooctane *99.6 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *107 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/06/2022	Sampling Date:	10/06/2022
Reported:	10/11/2022	Sampling Type:	Soil
Project Name:	RED HILLS 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16816	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: TT 1 @ 3' (H224700-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/10/2022	ND	2.04	102	2.00	1.76	
Toluene*	<0.050	0.050	10/10/2022	ND	2.17	108	2.00	3.06	
Ethylbenzene*	<0.050	0.050	10/10/2022	ND	2.01	100	2.00	2.91	
Total Xylenes*	<0.150	0.150	10/10/2022	ND	6.01	100	6.00	3.10	
Total BTEX	<0.300	0.300	10/10/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	10/11/2022	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/10/2022	ND	211	105	200	1.32	
DRO >C10-C28*	<10.0	10.0	10/10/2022	ND	222	111	200	3.11	
EXT DRO >C28-C36	<10.0	10.0	10/10/2022	ND					

Surrogate: 1-Chlorooctane *103 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *109 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Routine

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Lance Crenshaw	P.O. #:	
Address:	2617 W Marland	Company	Mewbourne
City:	Hobbs	Attn:	Conner Walker
State:	NM	Address:	4801 Business Park Blvd
Zip:	88240	City:	Hobbs
Phone #:	(575) 264-9884	State:	NM
Fax #:		Zip:	88240
Project #:	16816	Phone #:	
Project Owner:	Mewbourne	Fax #:	
Project Name:	Red Hills 22 SWD Line		
Project Location:			
Sampler Name:	Eric Mojica		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / ~~COOL~~	OTHER :	DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H224700																	
1	TT1@Surf.	G	1			✓					✓		10.6.22		✓	✓	✓
2	TT101'	G	1			✓					✓				✓	✓	✓
3	TT102'	G	1			✓					✓				✓	✓	✓
4	TT103'	G	1			✓					✓				✓	✓	✓

Relinquished By:	Date: 10-6-22	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Eric Mojica	Time: 1525	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		Please email results and copy of CoC to pm@etechenv.com.

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.1°C / 4.5°C #113

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

CHECKED BY: (Initials) TO

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

October 17, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS WEST 22 SWD LINE

Enclosed are the results of analyses for samples received by the laboratory on 10/11/22 15:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/11/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: RED HILLS 22 SWD NSW (H224779-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	3.43	
Toluene*	<0.050	0.050	10/14/2022	ND	2.02	101	2.00	3.40	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	1.99	99.5	2.00	3.82	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.04	101	6.00	4.93	
Total BTEX	<0.300	0.300	10/14/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	10/13/2022	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	10/13/2022	ND	205	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	215	107	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *97.3 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *99.6 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/11/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: RED HILLS 22 SWD ESW (H224779-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	3.43	
Toluene*	<0.050	0.050	10/14/2022	ND	2.02	101	2.00	3.40	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	1.99	99.5	2.00	3.82	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.04	101	6.00	4.93	
Total BTEX	<0.300	0.300	10/14/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	10/13/2022	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	10/13/2022	ND	205	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	215	107	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *98.1 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *100 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/11/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: RED HILLS 22 SWD SSW (H224779-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	3.43	
Toluene*	<0.050	0.050	10/14/2022	ND	2.02	101	2.00	3.40	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	1.99	99.5	2.00	3.82	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.04	101	6.00	4.93	
Total BTEX	<0.300	0.300	10/14/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	10/13/2022	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	10/13/2022	ND	205	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	215	107	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *100 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *104 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/11/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: RED HILLS 22 SWD WSW (H224779-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	3.43	
Toluene*	<0.050	0.050	10/14/2022	ND	2.02	101	2.00	3.40	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	1.99	99.5	2.00	3.82	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.04	101	6.00	4.93	
Total BTEX	<0.300	0.300	10/14/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/13/2022	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	10/13/2022	ND	205	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	215	107	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *83.8 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *86.4 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/11/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: RED HILLS 22 SWD FL1 (H224779-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	3.43	
Toluene*	<0.050	0.050	10/14/2022	ND	2.02	101	2.00	3.40	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	1.99	99.5	2.00	3.82	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.04	101	6.00	4.93	
Total BTEX	<0.300	0.300	10/14/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	205	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	215	107	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *98.5 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *101 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Lance Crenshaw	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	Marbourne
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Connor Wolfe
Phone #:	(575) 396-2378 **Fax #:** (575) 396-1429	**Address:**	4501 Ruidoso Park Blvd
Project #:	16815 **Project Owner:** Marbourne	**City:**	Hobbs
Project Name:	Red Hills West 22 SWD Line	**State:** NM **Zip:** 88240	
Project Location:		**Phone #:**	
Sampler Name:	Daniel Robinson	**Fax #:**	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	Chloride	TPH (8015M)	BTEX (8021B)
H224779																	
1	Red Hills 22 Swpline NSW	C	1			X					X		10-11-22	11:30 am	X	X	X
2	Red Hills 22 SWD Line ESW	C	1			X					X			11:32 am			
3	Red Hills 22 SWD Line SSW	C	1			X					X			11:34 am			
4	Red Hills 22 SWD Line WSW	C	1			X					X			11:36 am			
5	Red Hills 22 SWD Line FL 1	C	1			X					X			11:38			

Relinquished By:	**Date:** 10-11-22	**Received By:**	Tamara Oldaker
	Time: 3:52		
Relinquished By:	**Date:**	**Received By:**	
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.5°c / 3.9°c #113

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

CHECKED BY: (Initials) TO

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

Please email results to pm@etechenv.com.

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

October 19, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: RED HILLS WEST 22 SWD LINE

Enclosed are the results of analyses for samples received by the laboratory on 10/13/22 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/13/2022	Sampling Date:	10/13/2022
Reported:	10/19/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 1 @ SURFACE (H224847-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2022	ND	2.02	101	2.00	19.1	
Toluene*	<0.050	0.050	10/17/2022	ND	2.00	99.8	2.00	19.3	
Ethylbenzene*	<0.050	0.050	10/17/2022	ND	1.97	98.4	2.00	18.9	
Total Xylenes*	<0.150	0.150	10/17/2022	ND	5.95	99.1	6.00	18.1	
Total BTEX	<0.300	0.300	10/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/17/2022	ND	432	108	400	3.64	

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	10/18/2022	ND	246	123	200	5.53	
DRO >C10-C28*	<10.0	10.0	10/18/2022	ND	209	104	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	10/18/2022	ND					

Surrogate: 1-Chlorooctane *96.8 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *104 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/13/2022	Sampling Date:	10/13/2022
Reported:	10/19/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 1 @ 1 FT (H224847-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2022	ND	2.02	101	2.00	19.1	
Toluene*	<0.050	0.050	10/17/2022	ND	2.00	99.8	2.00	19.3	
Ethylbenzene*	<0.050	0.050	10/17/2022	ND	1.97	98.4	2.00	18.9	
Total Xylenes*	<0.150	0.150	10/17/2022	ND	5.95	99.1	6.00	18.1	
Total BTEX	<0.300	0.300	10/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	10/17/2022	ND	432	108	400	3.64	

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	10/18/2022	ND	246	123	200	5.53	
DRO >C10-C28*	<10.0	10.0	10/18/2022	ND	209	104	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	10/18/2022	ND					

Surrogate: 1-Chlorooctane *108 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *116 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/13/2022	Sampling Date:	10/13/2022
Reported:	10/19/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ SURFACE (H224847-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2022	ND	2.02	101	2.00	19.1	
Toluene*	<0.050	0.050	10/17/2022	ND	2.00	99.8	2.00	19.3	
Ethylbenzene*	<0.050	0.050	10/17/2022	ND	1.97	98.4	2.00	18.9	
Total Xylenes*	<0.150	0.150	10/17/2022	ND	5.95	99.1	6.00	18.1	
Total BTEX	<0.300	0.300	10/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	10/17/2022	ND	432	108	400	3.64	

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	10/18/2022	ND	246	123	200	5.53	
DRO >C10-C28*	<10.0	10.0	10/18/2022	ND	209	104	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	10/18/2022	ND					

Surrogate: 1-Chlorooctane *98.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *107 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/13/2022	Sampling Date:	10/13/2022
Reported:	10/19/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 2 @ 1 FT (H224847-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2022	ND	2.02	101	2.00	19.1	
Toluene*	<0.050	0.050	10/17/2022	ND	2.00	99.8	2.00	19.3	
Ethylbenzene*	<0.050	0.050	10/17/2022	ND	1.97	98.4	2.00	18.9	
Total Xylenes*	<0.150	0.150	10/17/2022	ND	5.95	99.1	6.00	18.1	
Total BTEX	<0.300	0.300	10/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	10/17/2022	ND	432	108	400	3.64	

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	10/18/2022	ND	246	123	200	5.53	
DRO >C10-C28*	<10.0	10.0	10/18/2022	ND	209	104	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	10/18/2022	ND					

Surrogate: 1-Chlorooctane *90.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *98.0 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/13/2022	Sampling Date:	10/13/2022
Reported:	10/19/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 3 @ SURFACE (H224847-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/18/2022	ND	2.02	101	2.00	19.1	
Toluene*	<0.050	0.050	10/18/2022	ND	2.00	99.8	2.00	19.3	
Ethylbenzene*	<0.050	0.050	10/18/2022	ND	1.97	98.4	2.00	18.9	
Total Xylenes*	<0.150	0.150	10/18/2022	ND	5.95	99.1	6.00	18.1	
Total BTEX	<0.300	0.300	10/18/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	10/17/2022	ND	432	108	400	3.64	

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	10/18/2022	ND	246	123	200	5.53	
DRO >C10-C28*	<10.0	10.0	10/18/2022	ND	209	104	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	10/18/2022	ND					

Surrogate: 1-Chlorooctane *93.7 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *101 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/13/2022	Sampling Date:	10/13/2022
Reported:	10/19/2022	Sampling Type:	Soil
Project Name:	RED HILLS WEST 22 SWD LINE	Sampling Condition:	Cool & Intact
Project Number:	16818	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE		

Sample ID: SP 3 @ 1 FT (H224847-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/18/2022	ND	2.02	101	2.00	19.1	
Toluene*	<0.050	0.050	10/18/2022	ND	2.00	99.8	2.00	19.3	
Ethylbenzene*	<0.050	0.050	10/18/2022	ND	1.97	98.4	2.00	18.9	
Total Xylenes*	<0.150	0.150	10/18/2022	ND	5.95	99.1	6.00	18.1	
Total BTEX	<0.300	0.300	10/18/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	10/17/2022	ND	432	108	400	3.64	

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	10/18/2022	ND	246	123	200	5.53	
DRO >C10-C28*	<10.0	10.0	10/18/2022	ND	209	104	200	1.30	
EXT DRO >C28-C36	<10.0	10.0	10/18/2022	ND					

Surrogate: 1-Chlorooctane *91.3 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *99.2 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Routine

Company Name:	Etech Environmental & Safety Solutions, Inc.	**BILL TO**	
Project Manager:	Lance Crenshaw	**P.O. #:**	
Address:	2617 W Marland	**Company**	Mewbourne
City:	Hobbs **State:** NM **Zip:** 88240	**Attn:**	Conner Walker
Phone #:	(575) 264-9884 **Fax #:**	**Address:**	4801 Business Park Blvd
Project #:	16818 **Project Owner:** Mewbourne	**City:**	Hobbs
Project Name:	Red Hills West 22 SWD Line	**State:** NM **Zip:**	88240
Project Location:		**Phone #:**	
Sampler Name:	David Robinson	**Fax #:**	

ANALYSIS REQUEST

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		Chloride	TPH (8015M)	BTEX (8021B)											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / ~~COOL~~	OTHER :	DATE	TIME														
H224847																												
1	SP1 @ Surface	C	1			✓					✓		10-13-22		✓	✓	✓											
2	SP1 @ 1ft	C	1			✓					✓		"		✓	✓	✓											
3	SP2 @ Surface	C	1			✓					✓		"		✓	✓	✓											
4	SP2 @ 1ft	C	1			✓					✓		"		✓	✓	✓											
5	SP3 @ Surface	C	1			✓					✓		"		✓	✓	✓											
6	SP3 @ 1ft	C	1			✓					✓		"		✓	✓	✓											
	~~SP4 @~~																											

Relinquished By: David Robinson	**Date:** 10-13-22 **Time:** 1605	**Received By:**	
Relinquished By:	**Date:** **Time:**	**Received By:**	

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

Please email results and copy of CoC to pm@etechenv.com.

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 3.1c / 2.5c #113

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

CHECKED BY: (Initials) TB

FORM-006
Revision 1.0

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

Appendix D
Photographic Log

Photographic Log

Photo Number: 1 **Photo Direction:** East-Southeast **Photo Description:** View of the affected area.	

Photo Number: 2 **Photo Direction:** South-Southwest **Photo Description:** View of the advancement of test trench TT1.	

Photographic Log

Photo Number: 3	
Photo Direction: Northeast	
Photo Description: View of the excavated area.	

Photo Number: 4	
Photo Direction: Northeast	
Photo Description: View of the remediated area after backfill and regrading.	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 152348

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 152348
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	11/17/2022