

Incident ID	nAPP2128047535
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?	145 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

Oil Conservation Division

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

Printed Name: Jeff Broom Title: Env. Rep

Signature: *Jeff Broom* Date: 1/26/2026

email: jbroom@mewbourne.com Telephone: (806) 202-8358

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2128047535
District RP	
Facility ID	
Application ID	

## Closure

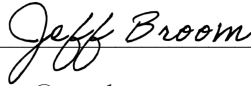
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled 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: Jeff Broom Title: Env. Rep

Signature:  Date: 1/26/2026

email: jbroom@mewbourne.com Telephone: (806) 202-8358

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

# Remediation Summary & Soil Closure Request


## Mewbourne Oil Company Bourbon Red Frac Water Line

Eddy County, New Mexico  
Unit Letter "M", Section 7, Township 19 South, Range 29 East  
Latitude 32.669186° North, Longitude 104.120669 West  
NMOCD Reference No. nAPP2128047535

Prepared By:


### Etech Environmental & Safety Solutions, Inc.

6309 Indiana Ave, Ste. D  
Lubbock, Texas 79413



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Ben J. Arguijo



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Lance Crenshaw



Midland • San Antonio • Lubbock • Hobbs • Lafayette

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### 1.0 PROJECT INFORMATION

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

<b>Location of Release Source</b>				
Latitude: <u>32.669186°</u>		Longitude: <u>-104.120669</u>		
Provided GPS are in WGS84 format.				
Site Name: <u>Bourbon Red Frac Water Line</u>		Site Type: <u>Pipeline</u>		
Date Release Discovered: <u>9/27/2021</u>		API # (if applicable): <u>N/A</u>		
Unit Letter	Section	Township	Range	County
"M"	7	19S	29E	Eddy
Surface Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Private (Name _____)				
<b>Nature and Volume of Release</b>				
<input type="checkbox"/> Crude Oil	Volume Released (bbls)		Volume Recovered (bbls)	
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)      18		Volume Recovered (bbls)      10	
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released		Volume/Weight Recovered	
Cause of Release: A lay flat water line developed a hole.				
<b>Initial Response</b>				
<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.				

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

## 2.0 SITE CHARACTERIZATION

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 Bourbon Red 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?	145'		
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Did the release impact areas not on an exploration, development, production or storage site?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

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

## 3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

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

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
145'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	20,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	1,000	N/A
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

\* Measured in milligrams per kilogram (mg/kg)

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

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

## 4.0 REMEDIATION ACTIVITIES SUMMARY

On October 7, 2023, remediation activities commenced at the Bourbon Red release site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and/or a chloride test kit were utilized to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The sidewalls and floors of the excavation were advanced until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards. Representative five-point composite confirmation soil samples were collected every 200 square feet from the sidewalls and floor of the excavated area to be submitted for laboratory analysis.

On October 6, 2023, Etech collected five (5) confirmation soil samples (NW 1A, EW 1B, WW 1A, FL 1 @ 1 FT, and FL 2 @ 1.5 FT) from the sidewalls and floor 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 that BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria, NMOCD Reclamation Standards, and laboratory method detection limit (MDL) in each of the submitted soil samples. Chloride concentrations ranged from 240 mg/kg in soil sample FL 1 @ 1 FT to 640 mg/kg in soil sample EW 1B, which exceeded the NMOCD Reclamation Standard.

On October 11, 2023, Etech collected six (6) confirmation soil samples (EW 2, SW 1, WW 2, FS 3 @ 4 FT, FS 4 @ 4 FT, and FS 5 @ 4 FT) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory MDL. Chloride concentrations ranged from 16.0 mg/kg in soil samples EW 2 and WW 2 to 784 mg/kg in soil sample FS 4 @ 4 FT.

On October 12, 2023, based on laboratory analytical results, the excavation was further advanced in the area characterized by soil sample EW 1B. Etech collected one (1) confirmation soil sample (EW 1C) 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 that the BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria, NMOCD Reclamation Standards, and laboratory MDL.

The final dimensions of the excavated area were approximately 100 feet in length, three (3) to 23 feet in width, and one (1) to four (4) feet in depth. During the course of remediation activities, Etech transported approximately 120 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 120 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 is provided in Appendix B. General photographs of the site are provided in Appendix C. Laboratory analytical reports are provided in Appendix D. Copies of all regulatory correspondence are provided in Appendix E.

## 5.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

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

## 6.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and/or 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/or 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 Bourbon Red release site.

## 7.0 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.

## **8.0 DISTRIBUTION**

***Mewbourne Oil Company***

*4801 Business Park Blvd.*

*Hobbs, NM 88240*

***New Mexico Energy, Minerals and Natural Resources Department***

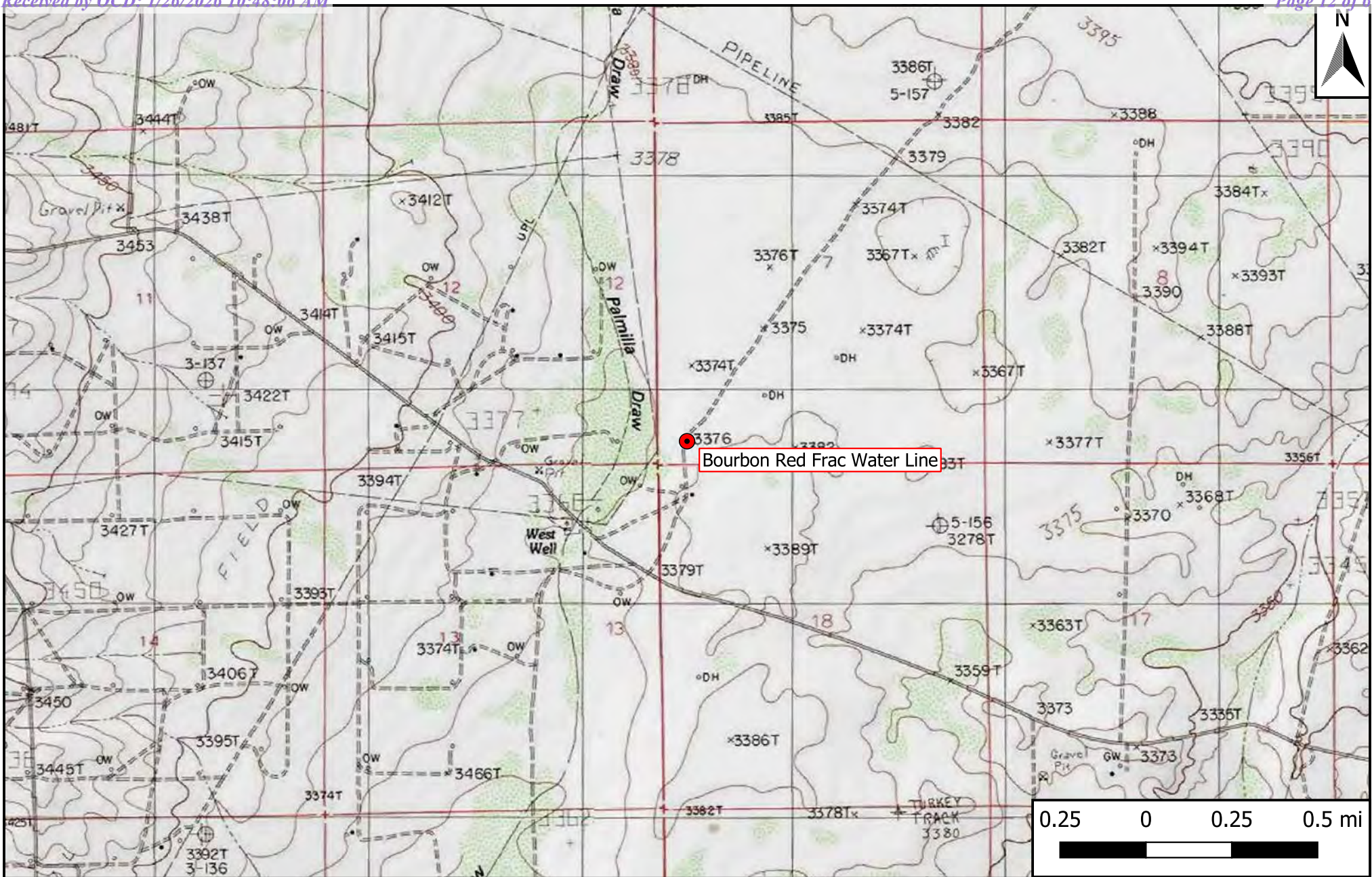
*Oil Conservation Division, District 2*

*811 S. First Street*

*Artesia, NM 88210*

*(Electronic Submission)*

# Figure 1 Topographic Map



Legend  
 ● Site Location

**Figure 1**  
 Topographic Map  
 Mewbourne Oil Company  
 Bourbon Red Frac Water Line  
 GPS: 32.669186, -104.120669  
 Eddy County

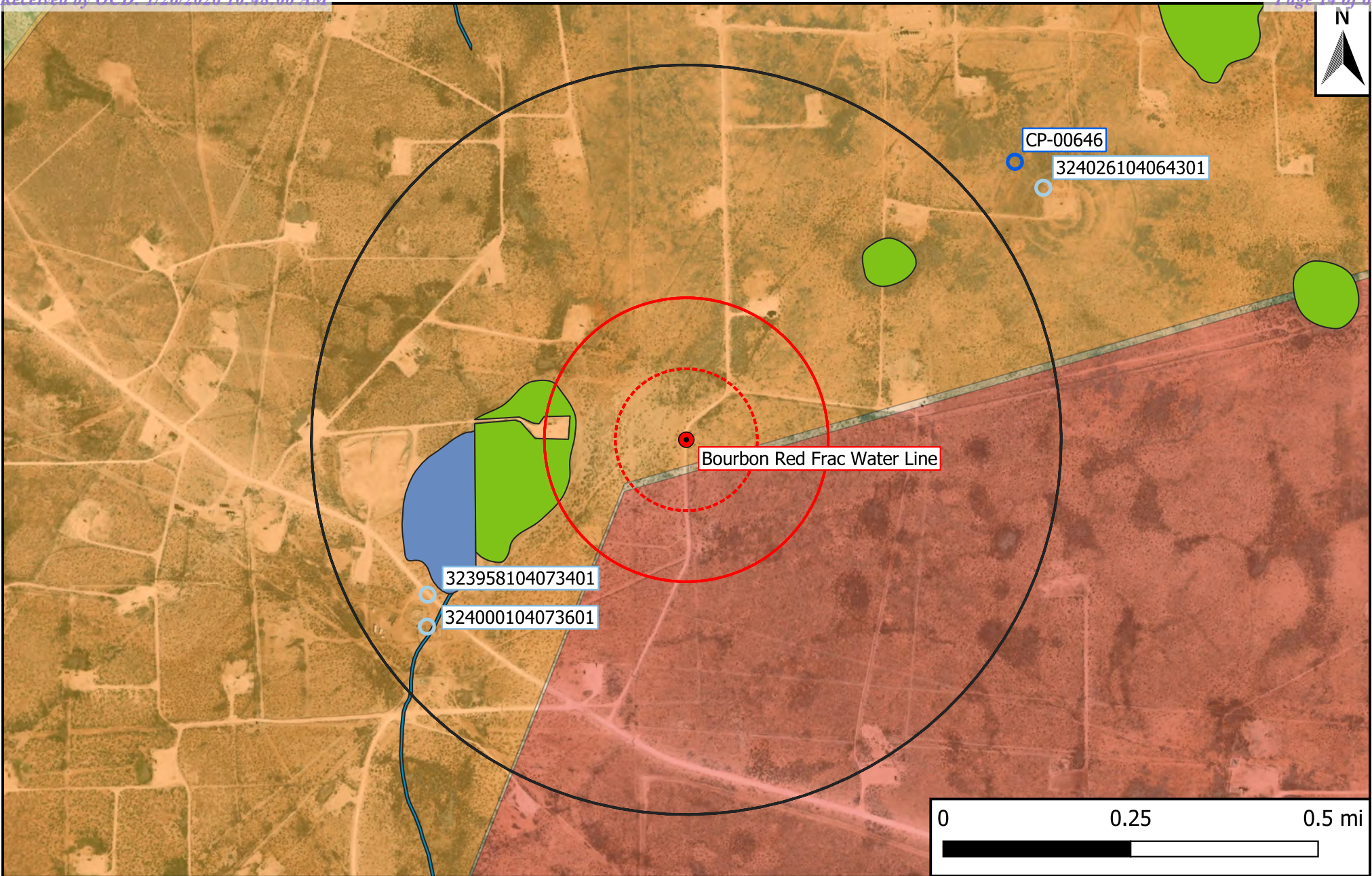


Drafted: bja

Checked: lc

Date: 9/29/23

## Figure 2 Site Characterization Map



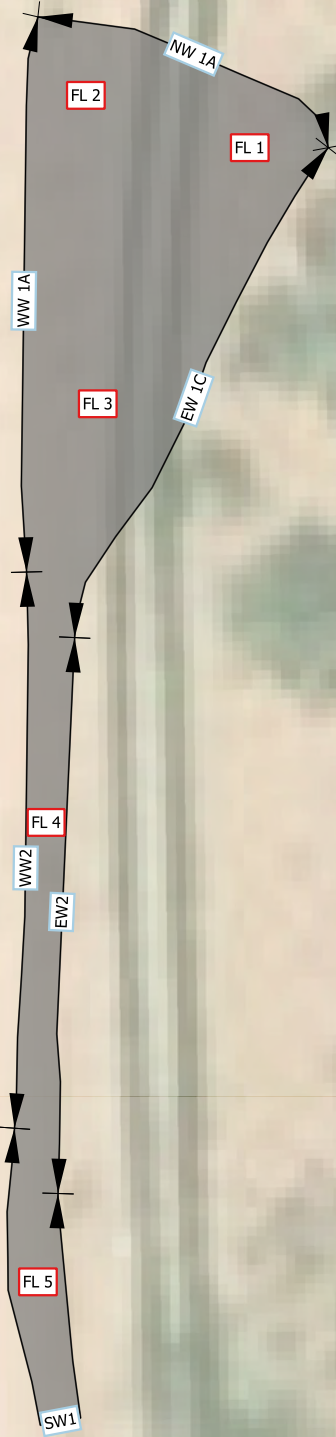
Legend		
Site Location	1% Annual Flood Chance	500-Ft Radius
Well - NMOSE	Emergent/Forested Wetlands	1,000-Ft Radius
Well - USGS	Freshwater Pond/Lake	0.5-Mi Radius
Well - Exploratory/Monitor	Karst Potential (Low/Med./High)	Municipal Boundary
Potash Mine Workings	Riverine	

**Figure 2**  
 Site Characterization Map  
 Mewbourne Oil Company  
 Bourbon Red Frac Water Line  
 GPS: 32.669186, -104.120669  
 Eddy County



## **Figure 3**

### **Site & Sample Location Map**



Legend




-  Excavation Extent
-  Composite Floor Sample
-  Composite Wall Sample

Figure 3

Site & Sample Location Map  
 Mewbourne Oil Company  
 Bourbon Red Frac Water Line  
 GPS: 32.669186, -104.120669  
 Eddy County



Drafted: bja

Checked: lc

Date: 10/26/23

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

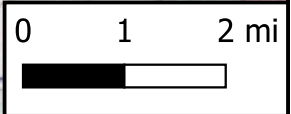
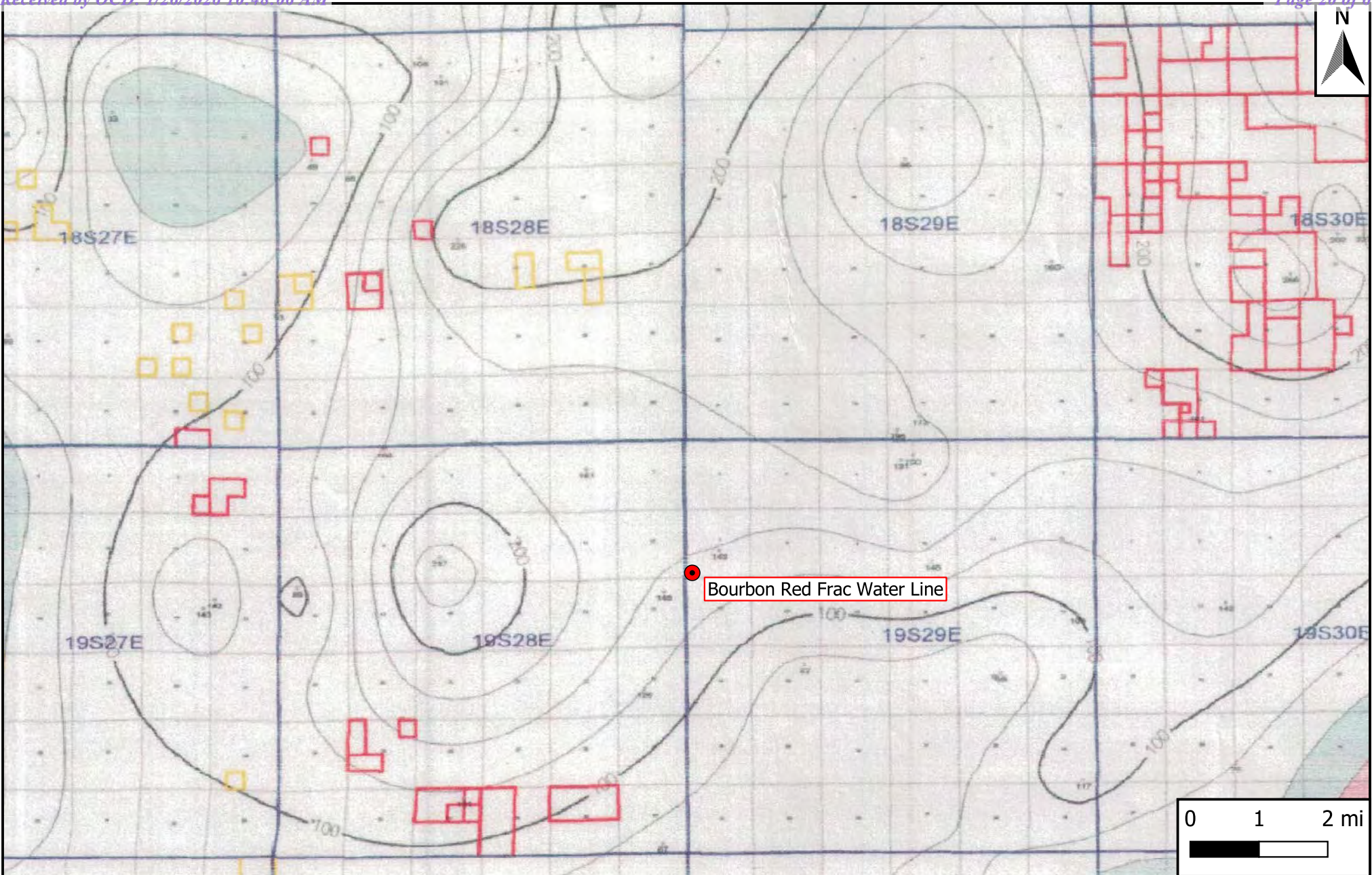
<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>Mewbourne Oil Company</b> <b>Bourbon Red Frac Water Line</b> <b>NMOCD Ref. #: nAPP2128047535</b>											
NMOCD Closure Criteria				10	50	N/A	N/A	1,000	N/A	2,500	20,000
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <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 C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
NW 1A	10/6/2023	0-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	448
EW 1B	10/6/2023	0-4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	640
EW 1C	10/12/2023	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EW 2	10/11/2023	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SW 1	10/11/2023	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
WW 1A	10/6/2023	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	256
WW 2	10/11/2023	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 1 @ 1 FT	10/6/2023	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
FL 2 @ 1.5 FT	10/6/2023	1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	464
FS 3 @ 4 FT	10/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
FS 4 @ 4 FT	10/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	784
FS 5 @ 4 FT	10/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	656

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  
 Bourbon Red Frac Water Line  
 GPS: 32.669186, -104.120669  
 Eddy County



Drafted: bja

Checked: lc

Date: 9/29/23



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 6	Q 1	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">CP 00646</a>		CP	ED	1	1	4	07	19S	29E	583155	3615551	923	199	150	49

Average Depth to Water: **150 feet**  
 Minimum Depth: **150 feet**  
 Maximum Depth: **150 feet**

**Record Count:** 1

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 582449.97

**Northing (Y):** 3614955.37

**Radius:** 1610

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.

10/26/23 3:36 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)		
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
	CP 00646	1	1	4	07	19S	29E	583155	3615551

<b>Driller License:</b> 421	<b>Driller Company:</b> GLENN'S WATER WELL SERVICE	
<b>Driller Name:</b> GLENN, CLARK A."CORKY" (LD)		
<b>Drill Start Date:</b> 10/29/1981	<b>Drill Finish Date:</b> 11/03/1981	<b>Plug Date:</b>
<b>Log File Date:</b> 11/20/1981	<b>PCW Rcv Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 6.63	<b>Depth Well:</b> 199 feet	<b>Depth Water:</b> 150 feet

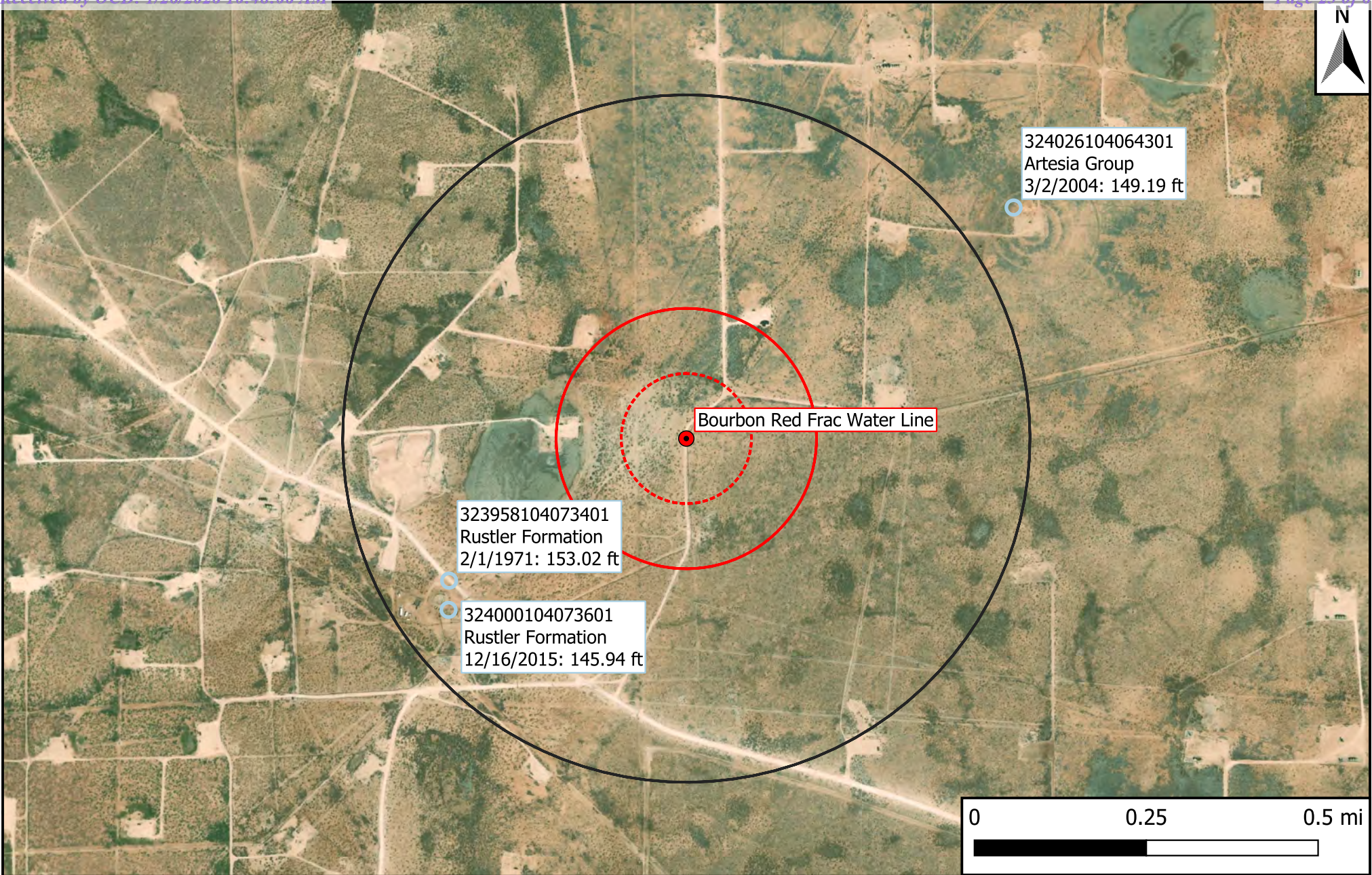
<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	175	194	Other/Unknown

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	150	199

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.

10/26/23 3:37 PM

POINT OF DIVERSION SUMMARY



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

**Figure 5**  
 USGS Well Proximity Map  
 Mewbourne Oil Company  
 Bourbon Red Frac Water Line  
 GPS: 32.669186, -104.120669  
 Eddy County



Drafted: bja

Checked: lc

Date: 9/29/23



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Agency code = usgs  
site\_no list =  
• 323958104073401

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

**USGS 323958104073401 19S.28E.13.21400**

Eddy County, New Mexico  
Latitude 32°39'58", Longitude 104°07'34" NAD27  
Land-surface elevation 3,371 feet above NAVD88  
The depth of the well is 160 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Rustler Formation (312RSLR) local aquifer.

**Output formats**

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- [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
1948-12-03		D	72019	153.28			P	Z			A
1965-11-03		D	72019	152.50			1	Z			A
1968-04-02		D	72019	149.75			P	Z			A
1971-02-01		D	72019	153.02			P	Z			A

Explanation

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

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



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0.28 0.24 nadww01



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**Search Results -- 1 sites found**

Agency code = usgs  
 site\_no list = 

- 324000104073601

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

**USGS 324000104073601 19S.28E.13.214411**

Eddy County, New Mexico  
 Latitude 32°39'56.2", Longitude 104°07'35.9" NAD83  
 Land-surface elevation 3,372 feet above NAVD88  
 This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
 This well is completed in the Rustler Formation (312RSLR) local aquifer.

**Output formats**

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- [Tab-separated data](#)
- [Graph of data](#)
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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	
1983-01-10			D	72019	145.49			1	Z		A	
1986-06-03			D	72019	148.40			1	S		A	
1994-03-04			D	72019	145.05			1	S		A	
1999-01-19			D	72019	144.98			1	S	USGS	S	A
2015-12-16	20:05 UTC		m	72019	145.94			1	S	USGS	S	A
2022-01-11	18:51 UTC		m	72019	148.08			1	S	USGS	S	A
2023-02-10	21:25 UTC		m	72019	145.16			1	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
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
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.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



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0.34 0.24 nadww01



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Search Results -- 1 sites found

Agency code = usgs

site\_no list =  
• 324026104064301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 324026104064301 19S.29E.07.41134

Eddy County, New Mexico

Latitude 32°40'26", Longitude 104°06'43" NAD27

Land-surface elevation 3,375 feet above NAVD88

The depth of the well is 199 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Artesia Group (313ARTS) 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
1984-04-26			D	72019	149.40		1	Z			A
1994-03-04			D	72019	149.25		1	S			A
1999-02-19			D	72019	151.13		1	S	USGS	S	A
2004-03-02			D	72019	149.19		1	S	USGS	S	A

Explanation

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

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0.4 0.26 nadww01

## **Appendix B Field Data**



# **Appendix C**

## **Photographic Log**

### Photographic Log

<b>Photo Number:</b> 1	
<b>Photo Direction:</b> North-Northeast	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 2	
<b>Photo Direction:</b> North-Northeast	
<b>Photo Description:</b>  View of the affected area.	

### Photographic Log

<b>Photo Number:</b> 3	
<b>Photo Direction:</b> North-Northeast	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 4	
<b>Photo Direction:</b> North-Northeast	
<b>Photo Description:</b>  View of the affected area.	


### Photographic Log

<b>Photo Number:</b> 5	 <p>October 9, 2023 at 11:08 AM +32.668910,-104.120759</p>
<b>Photo Direction:</b> Northeast	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 6	 <p>October 9, 2023 at 11:08 AM +32.660058,-104.119554</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 7	 <p>October 9, 2023 at 11:08 AM +32.668910,-104.120759</p>
<b>Photo Direction:</b> North-Northeast	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 8	 <p>Oct 18, 2023 at 2:58:57 PM +32.668760,-104.120831 Horse Shoe Rd Artesia NM 88210 United States</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

# Appendix D

## Laboratory Analytical Reports



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

---

October 11, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: BOURBON RED FRAC WATER LINE

Enclosed are the results of analyses for samples received by the laboratory on 10/06/23 14:58.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/06/2023	Sampling Date:	10/06/2023
Reported:	10/11/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: NW 1A (H235469-01)**

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	10/09/2023	ND	2.04	102	2.00	5.14	
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	10/10/2023	ND	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	10/09/2023	ND	213	106	200	4.58	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	228	114	200	5.67	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	10/06/2023	Sampling Date:	10/06/2023
Reported:	10/11/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: EW 1B (H235469-02)**

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	10/09/2023	ND	2.04	102	2.00	5.14	
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62	
Total BTEX	<0.300	0.300	10/09/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	10/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/09/2023	ND	213	106	200	4.58	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	228	114	200	5.67	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 79.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	10/06/2023	Sampling Date:	10/06/2023
Reported:	10/11/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: FL 1 @ 1 FT (H235469-03)**

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	10/09/2023	ND	2.04	102	2.00	5.14	
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62	
Total BTEX	<0.300	0.300	10/09/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	10/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/09/2023	ND	213	106	200	4.58	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	228	114	200	5.67	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 80.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	10/06/2023	Sampling Date:	10/06/2023
Reported:	10/11/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: FL 2 @ 1.5 FT (H235469-04)**

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	10/09/2023	ND	2.04	102	2.00	5.14	
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62	
Total BTEX	<0.300	0.300	10/09/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	10/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/09/2023	ND	213	106	200	4.58	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	228	114	200	5.67	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 79.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/06/2023	Sampling Date:	10/06/2023
Reported:	10/11/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: WW 1A (H235469-05)**

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	10/09/2023	ND	2.04	102	2.00	5.14	
Toluene*	<0.050	0.050	10/09/2023	ND	2.01	100	2.00	5.50	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.10	105	2.00	5.31	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.18	103	6.00	5.62	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	10/10/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/09/2023	ND	213	106	200	4.58	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	228	114	200	5.67	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 70.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

Company Name: Etech Environmental				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																							
Project Manager: Lance Crenshaw				P.O. #:																											
Address: 2617 W Marland Blvd				Company: Mewbourne																											
City: Hobbs		State: NM		Zip: 88240		Attn: Connor Walker																									
Phone #: 575-396-2378		Fax #: 575-396-1429		Address:																											
Project #: 19082		Project Owner: Mewbourne Oil Company		City:																											
Project Name: Bourbon Red Frac Water Line				State: Zip:																											
Project Location: UL/ M Sec 7 T19S - R29E				Phone #:																											
Sampler Name:				Fax #:																											
FOR LAB USE ONLY																															
Lab I.D.		Sample I.D.		GIRAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.		SAMPLING																			
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE		TIME		Chloride	TPH	BTEX 8021										
H235469				C				X							10/23				X	X	X										
1		RW 1 A																													
2		EW 1 B																													
3		FL1 at 18"																													
4		FL2 at 1.5 ft																													
5		WW 1 A																													

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Relinquished By:		Date: 10/23		Received By: [Signature]		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
[Signature]		Time: 1:58		[Signature]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS: Email results to <a href="mailto:pm@etechenv.com">pm@etechenv.com</a>			
Time:									
Delivered By: (Circle One)		1-7:		Sample Condition		CHECKED BY: [Signature]			
Sampler - UPS - Bus - Other:		#140		Cool <input type="checkbox"/> Intact <input type="checkbox"/>		(Initials)			
				Yes <input type="checkbox"/> No <input type="checkbox"/>					

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



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

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October 16, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: BOURBON RED FRAC WATER LINE

Enclosed are the results of analyses for samples received by the laboratory on 10/11/23 14:35.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/11/2023	Sampling Date:	10/11/2023
Reported:	10/16/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: FS 3 @ 4 FT (H235544-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	1.10	
Toluene*	<0.050	0.050	10/12/2023	ND	2.09	104	2.00	0.203	
Ethylbenzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	0.958	
Total Xylenes*	<0.150	0.150	10/12/2023	ND	6.08	101	6.00	0.851	
Total BTEX	<0.300	0.300	10/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	10/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2023	ND	195	97.6	200	0.724	
DRO >C10-C28*	<10.0	10.0	10/12/2023	ND	184	92.1	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	10/12/2023	ND					

Surrogate: 1-Chlorooctane 99.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/11/2023	Sampling Date:	10/11/2023
Reported:	10/16/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: FS 4 @ 4 FT (H235544-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	1.10	
Toluene*	<0.050	0.050	10/12/2023	ND	2.09	104	2.00	0.203	
Ethylbenzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	0.958	
Total Xylenes*	<0.150	0.150	10/12/2023	ND	6.08	101	6.00	0.851	
Total BTEX	<0.300	0.300	10/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	10/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2023	ND	195	97.6	200	0.724	
DRO >C10-C28*	<10.0	10.0	10/12/2023	ND	184	92.1	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	10/12/2023	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/11/2023	Sampling Date:	10/11/2023
Reported:	10/16/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: FS 5 @ 4 FT (H235544-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	1.10	
Toluene*	<0.050	0.050	10/12/2023	ND	2.09	104	2.00	0.203	
Ethylbenzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	0.958	
Total Xylenes*	<0.150	0.150	10/12/2023	ND	6.08	101	6.00	0.851	
Total BTEX	<0.300	0.300	10/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	10/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2023	ND	195	97.6	200	0.724	
DRO >C10-C28*	<10.0	10.0	10/12/2023	ND	184	92.1	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	10/12/2023	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.9 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/11/2023	Sampling Date:	10/11/2023
Reported:	10/16/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: WW2 (H235544-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	1.10	
Toluene*	<0.050	0.050	10/12/2023	ND	2.09	104	2.00	0.203	
Ethylbenzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	0.958	
Total Xylenes*	<0.150	0.150	10/12/2023	ND	6.08	101	6.00	0.851	
Total BTEX	<0.300	0.300	10/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2023	ND	195	97.6	200	0.724	
DRO >C10-C28*	<10.0	10.0	10/12/2023	ND	184	92.1	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	10/12/2023	ND					

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.6 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/11/2023	Sampling Date:	10/11/2023
Reported:	10/16/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: EW2 (H235544-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	1.10	
Toluene*	<0.050	0.050	10/12/2023	ND	2.09	104	2.00	0.203	
Ethylbenzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	0.958	
Total Xylenes*	<0.150	0.150	10/12/2023	ND	6.08	101	6.00	0.851	
Total BTEX	<0.300	0.300	10/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2023	ND	195	97.6	200	0.724	
DRO >C10-C28*	<10.0	10.0	10/12/2023	ND	184	92.1	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	10/12/2023	ND					

Surrogate: 1-Chlorooctane 95.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/11/2023	Sampling Date:	10/11/2023
Reported:	10/16/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: SW1 (H235544-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	1.10	
Toluene*	<0.050	0.050	10/12/2023	ND	2.09	104	2.00	0.203	
Ethylbenzene*	<0.050	0.050	10/12/2023	ND	2.04	102	2.00	0.958	
Total Xylenes*	<0.150	0.150	10/12/2023	ND	6.08	101	6.00	0.851	
Total BTEX	<0.300	0.300	10/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2023	ND	195	97.6	200	0.724	
DRO >C10-C28*	<10.0	10.0	10/12/2023	ND	184	92.1	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	10/12/2023	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Form with sections: Company Name, Project Manager, Address, City, State, Zip, Phone #, Fax #, Project #, Project Owner, Project Name, Project Location, Sampler Name, BILL TO, ANALYSIS REQUEST, Lab I.D., Sample I.D., MATRIX, PRESERV., SAMPLING, Chloride, TPH, BTEX 8021.

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Form with sections: Relinquished By, Date, Time, Received By, Date, Time, Sample Condition, CHECKED BY, Phone Result, Fax Result, Add'l Phone #, Add'l Fax #, REMARKS.

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FORM-006 R 2.0



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

---

October 17, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: BOURBON RED FRAC WATER LINE

Enclosed are the results of analyses for samples received by the laboratory on 10/16/23 10:05.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/16/2023	Sampling Date:	10/12/2023
Reported:	10/17/2023	Sampling Type:	Soil
Project Name:	BOURBON RED FRAC WATER LINE	Sampling Condition:	Cool & Intact
Project Number:	19082	Sample Received By:	Dionica Hinojos
Project Location:	MEWBOURNE UL/M SEC 7 T19S -R29E		

**Sample ID: EW1C (H235619-01)**

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	10/17/2023	ND	1.89	94.7	2.00	3.05		
Toluene*	<0.050	0.050	10/17/2023	ND	1.85	92.3	2.00	0.978		
Ethylbenzene*	<0.050	0.050	10/17/2023	ND	1.94	97.1	2.00	1.58		
Total Xylenes*	<0.150	0.150	10/17/2023	ND	5.83	97.1	6.00	1.97		
Total BTEX	<0.300	0.300	10/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/17/2023	ND	174	86.9	200	1.85		
DRO >C10-C28*	<10.0	10.0	10/17/2023	ND	168	83.8	200	2.69		
EXT DRO >C28-C36	<10.0	10.0	10/17/2023	ND						

Surrogate: 1-Chlorooctane 74.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
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Form with sections: Company Name, Project Manager, Address, City, State, Zip, Phone #, Fax #, Project #, Project Owner, Project Name, Project Location, Sampler Name, BILL TO, ANALYSIS REQUEST, FOR LAB USE ONLY, Lab I.D., Sample I.D., MATRIX, PRESERV., SAMPLING, Chloride, TPH, BTEX 8021.

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FORM-006 R 2.0

# **Appendix E**

## **Regulatory Correspondence**

**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Tamarah Kendrick; eco@slo.state.nm.us](#); [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Cc:** [Lance Crenshaw](#); [Ben Arguijo](#)  
**Subject:** RE: [EXTERNAL] nAPP2128047535 - Sampling Notification - Bourbon Red Frac Water Line - Mewbourne  
**Date:** Friday, October 6, 2023 12:52:36 PM  
**Attachments:** [image001.png](#)

---

Some people who received this message don't often get email from [shelly.wells@emnrd.nm.gov](mailto:shelly.wells@emnrd.nm.gov). [Learn why this is important](#)

Hi Tamarah,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

[Shelly Wells](#) \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Tamarah Kendrick <[tamarah@etechenv.com](mailto:tamarah@etechenv.com)>  
**Sent:** Friday, October 6, 2023 11:36 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>; [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us)  
**Cc:** Lance Crenshaw <[lance@etechenv.com](mailto:lance@etechenv.com)>; Ben Arguijo <[bena@etechenv.com](mailto:bena@etechenv.com)>  
**Subject:** [EXTERNAL] nAPP2128047535 - Sampling Notification - Bourbon Red Frac Water Line - Mewbourne

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

This email serves as notice Etech intends to conduct confirmation soil sampling for the following reportable release site beginning 10/11/2023.

nAPP2128047535 – Bourbon Red Frac Water Line

If you have any questions or need any additional information, please feel free to contact Lance Crenshaw by phone or email.

Lance Crenshaw

Etech Environmental  
Phone 575-631-1064  
[lance@etechnv.com](mailto:lance@etechnv.com)

*Tamarah Kendrick*

**Project Coordinator**

**Etech - Environmental and Safety Solutions**

**2617 W. Marland Blvd**

**Hobbs, NM 88240**



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

QUESTIONS

Action 546132

**QUESTIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 546132
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2128047535
Incident Name	NAPP2128047535 BOURBON RED FRAC WATER LINE @ M-07-19S-29E
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	BOURBON RED FRAC WATER LINE
Date Release Discovered	09/27/2021
Surface Owner	State

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

<b>Nature and Volume of Release</b>	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Pipeline (Any)   Produced Water   Released: 18 BBL   Recovered: 10 BBL   Lost: 8 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 546132

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 546132
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>No</b>
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>
<i>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.</i>	

**Initial Response**

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.*

The source of the release has been stopped	<b>True</b>
The impacted area has been secured to protect human health and the environment	<b>True</b>
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	<b>True</b>
All free liquids and recoverable materials have been removed and managed appropriately	<b>True</b>
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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

I hereby agree and sign off to the above statement	Name: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 01/26/2026
----------------------------------------------------	-------------------------------------------------------------------------------------------------

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QUESTIONS, Page 3

Action 546132

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 546132
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 500 and 1000 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 500 and 1000 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	784
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	10/07/2023
On what date will (or did) the final sampling or liner inspection occur	10/12/2023
On what date will (or was) the remediation complete(d)	10/12/2023
What is the estimated surface area (in square feet) that will be reclaimed	1000
What is the estimated volume (in cubic yards) that will be reclaimed	120
What is the estimated surface area (in square feet) that will be remediated	1000
What is the estimated volume (in cubic yards) that will be remediated	120

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.*

*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

QUESTIONS, Page 4

Action 546132

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 546132
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Remediation Plan (continued)**

*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

*(Select all answers below that apply.)*

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

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

I hereby agree and sign off to the above statement	Name: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 01/26/2026
----------------------------------------------------	-------------------------------------------------------------------------------------------------

*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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QUESTIONS, Page 5

Action 546132

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 546132
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Deferral Requests Only</b>	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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**Oil Conservation Division**  
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QUESTIONS, Page 6

Action 546132

**QUESTIONS (continued)**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 546132
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>546187</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>10/12/2023</b>
What was the (estimated) number of samples that were to be gathered	<b>1</b>
What was the sampling surface area in square feet	<b>200</b>

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1000
What was the total volume (cubic yards) remediated	120
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	1000
What was the total volume (in cubic yards) reclaimed	120
Summarize any additional remediation activities not included by answers (above)	n/a

*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 (in .pdf format) 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.*

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.

I hereby agree and sign off to the above statement	Name: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 01/26/2026
----------------------------------------------------	-------------------------------------------------------------------------------------------------

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

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**QUESTIONS (continued)**

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**QUESTIONS**

<b>Reclamation Report</b>	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	No

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
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CONDITIONS

Action 546132

**CONDITIONS**

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**CONDITIONS**

Created By	Condition	Condition Date
nvez	None	3/17/2026