

Incident ID	nAPP2316627313
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?	250 (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.

State of New Mexico  
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: Connor Walker Title: Sr. Engineer

Signature:  Date: 09/27/2023

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

**OCD Only**

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

Incident ID	nAPP2316627313
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## 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: 09/27/2023  
 email: cwalker@mewbourne.com Telephone: (806)202-5281

**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: Scott Rodgers Date: 01/16/2024  
 Printed Name: Scott Rodgers Title: Environmental Specialist Adv.

# Remediation Summary & Soil Closure Request

## Mewbourne Oil Company McKamey Federal #001Y

Lea County, New Mexico  
Unit Letter "L", Section 25, Township 19 South, Range 32 East  
Latitude 32.63078° North, Longitude 103.72612° West  
NMOCD Reference No. nAPP2316627313

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 McKamey Federal #001Y. Details of the release are summarized below:

<b>Location of Release Source</b>				
Latitude: <u>32.63078°</u>		Longitude: <u>-103.72612°</u>		
Provided GPS are in WGS84 format.				
Site Name: <u>McKamey Federal #001Y</u>		Site Type: <u>Tank Battery</u>		
Date Release Discovered: <u>6/3/2023</u>		API # (if applicable): <u>30-025-27740</u>		
Unit Letter	Section	Township	Range	County
"L"	25	19S	32E	Lea
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Private (Name _____)				
<b>Nature and Volume of Release</b>				
<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	5	Volume Recovered (bbls)	2
<input type="checkbox"/> Produced Water	Volume Released (bbls)		Volume Recovered (bbls)	
	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: Tank on location was struck by lightning.				
<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 databases maintained by the NMOCD, 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 McKamey Federal #001Y 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?	250'	
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 McKamey Federal #001Y release site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
250'	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 NMOCD APPROVALS & STIPULATIONS

Pursuant to NMOCD regulations, a work plan or closure report was due for the McKamey Federal #001Y release by August 31, 2023. On August 1, 2023, Etech submitted an extension request to the NMOCD asking for additional time to fully excavate the site, gather confirmation soil samples, backfill the excavation, and prepare a site closure request. The NMOCD subsequently granted an extension until September 29, 2023, with no added stipulations.

## 5.0 REMEDIATION ACTIVITIES SUMMARY

On August 29, 2023, remediation activities commenced at the McKamey Federal #001Y 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 August 31, 2023, Etech collected 15 confirmation soil samples (NW1, EW1, EW2, SW1, WW1, and FL 1 @ 6 IN through FL 10 @ 6 IN) 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 chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards in each of the submitted soil samples. BTEX concentrations were also less than the laboratory method detection limit (MDL). TPH concentrations ranged from less than the laboratory MDL in soil samples NW1, EW2, SW1, WW1, FL 1 @ 6 IN, FL 8 @ 6 IN, FL 9 @ 6 IN, and FL 10 @ 6 IN to 3,055 mg/kg in soil sample EW1. TPH and/or GRO+DRO concentrations in soil samples EW1, FL 5 @ 6 IN, and FL 6 @ 6 IN exceeded the applicable NMOCD Closure Criteria. Chloride concentrations ranged from less than the laboratory MDL in soil samples NW1 and WW1 to 2,600 mg/kg in soil sample FL 6 @ 6 IN.

On August 31, 2023, Etech also advanced a series of hand-augered soil borings (NH1, EH1, EH2, SH1, and WH1) outside the footprint of the excavated area and within one (1) to two (2) feet of the inferred edges of the release to confirm that the horizontal extent of impacted soil had been fully delineated. During the advancement of the hand-augered soil borings, soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing olfactory/visual senses and/or concentrations of chloride using a Hach Quantab® chloride test kit.

Based on field observations and field test results, five (5) delineation soil samples (NH1, EH1, EH2, SH1, and WH1) 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 less than the laboratory MDL in soil samples NH1, SH1, and WH1 to 32.0 mg/kg in soil sample EH2. Based on these laboratory analytical results, the horizontal extent of impacted soil was adequately defined.

On August 10, 2023, based on laboratory analytical results, the excavation was further advanced in the areas characterized by soil samples EW1, FL 5 @ 6 IN, and FL 6 @ 6 IN. Etech collected three (3) confirmation soil samples (EW1B, FL 5 @ 1 FT, and FL 6 @ 1 FT) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of TPH. Laboratory analytical results indicated that TPH concentrations were below the NMOCD Closure Criterion, NMOCD Reclamation Standard, and laboratory MDL in each of the submitted soil samples.

The final dimensions of the excavated area were approximately 88 feet in length, 40 to 66 feet in width, and six (6) inches to one (1) foot in depth. During the course of remediation activities, Etech transported approximately 80 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 80 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

The extent of the excavated area and the locations of the confirmation soil samples and hand-augered soil borings 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 release site are provided in Appendix C. Laboratory analytical reports are provided in Appendix D. Copies of all regulatory correspondence are provided in Appendix E.

## **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/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture free of noxious weeds during the first favorable growing season following closure of the site.

## **7.0 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 McKamey Federal #001Y 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*

***United States Department of the Interior***

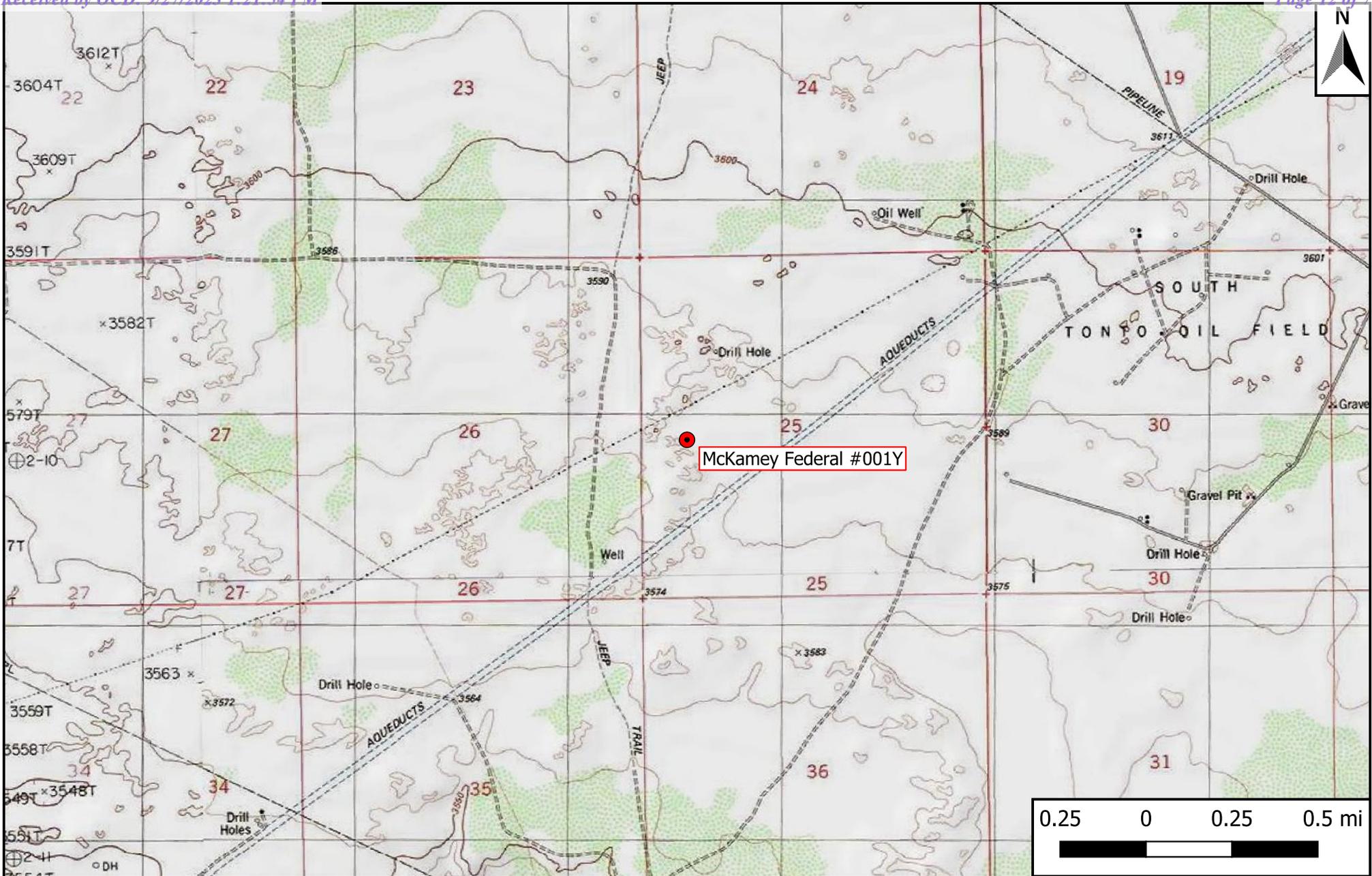
*Bureau of Land Management*

*620 E. Greene Street*

*Carlsbad, NM 88220*

*(Electronic Submission)*

# Figure 1 Topographic Map



Legend  
 ● Site Location

**Figure 1**  
 Site Location Map  
 Mewbourne Oil Company  
 McKamey Federal #001Y  
 GPS: 32.63078, -103.72612  
 Lea County

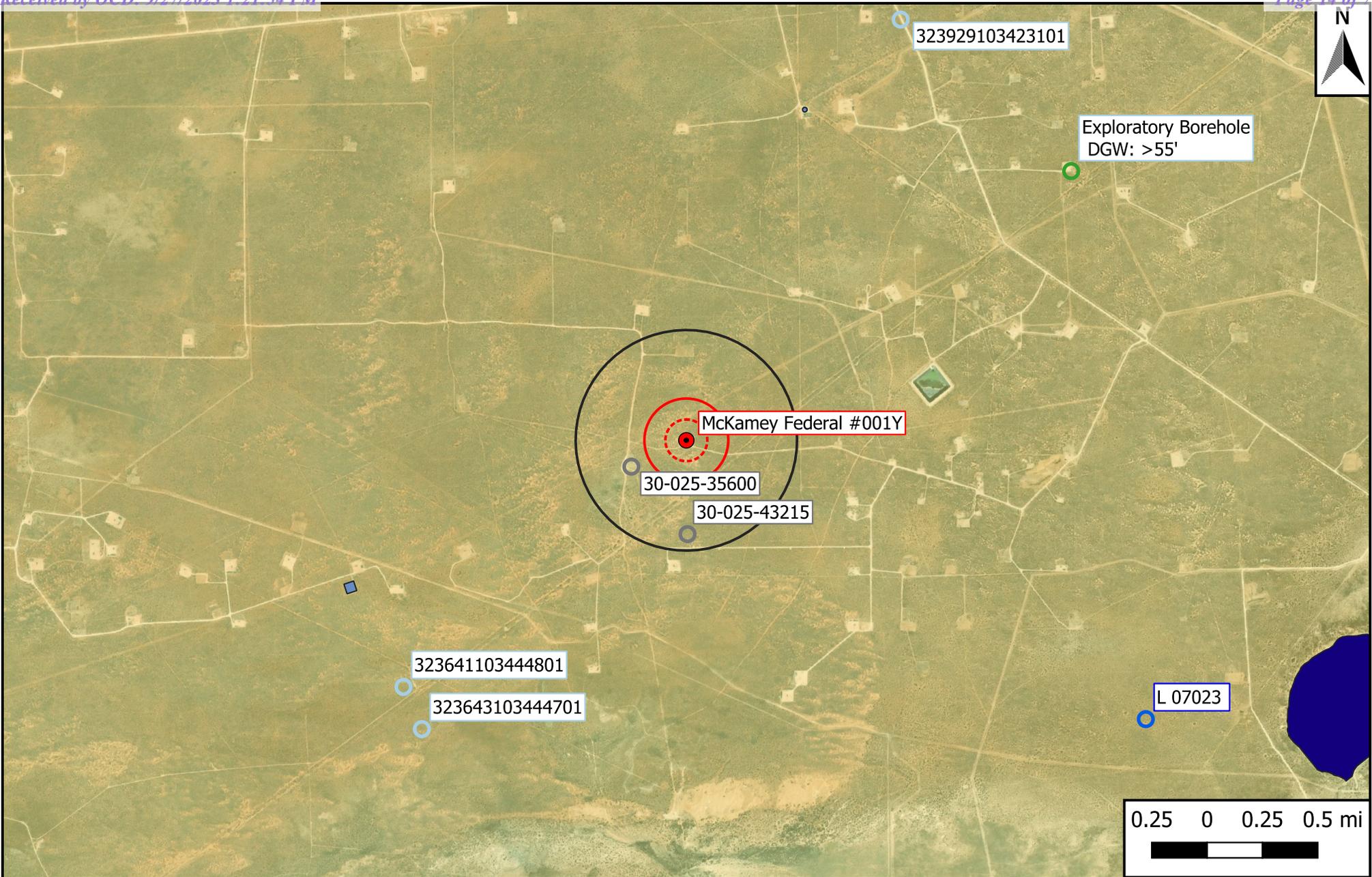


Drafted: bja

Checked: lc

Date: 8/14/23

## Figure 2 Site Characterization Map



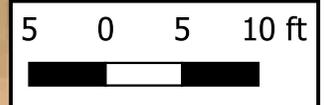
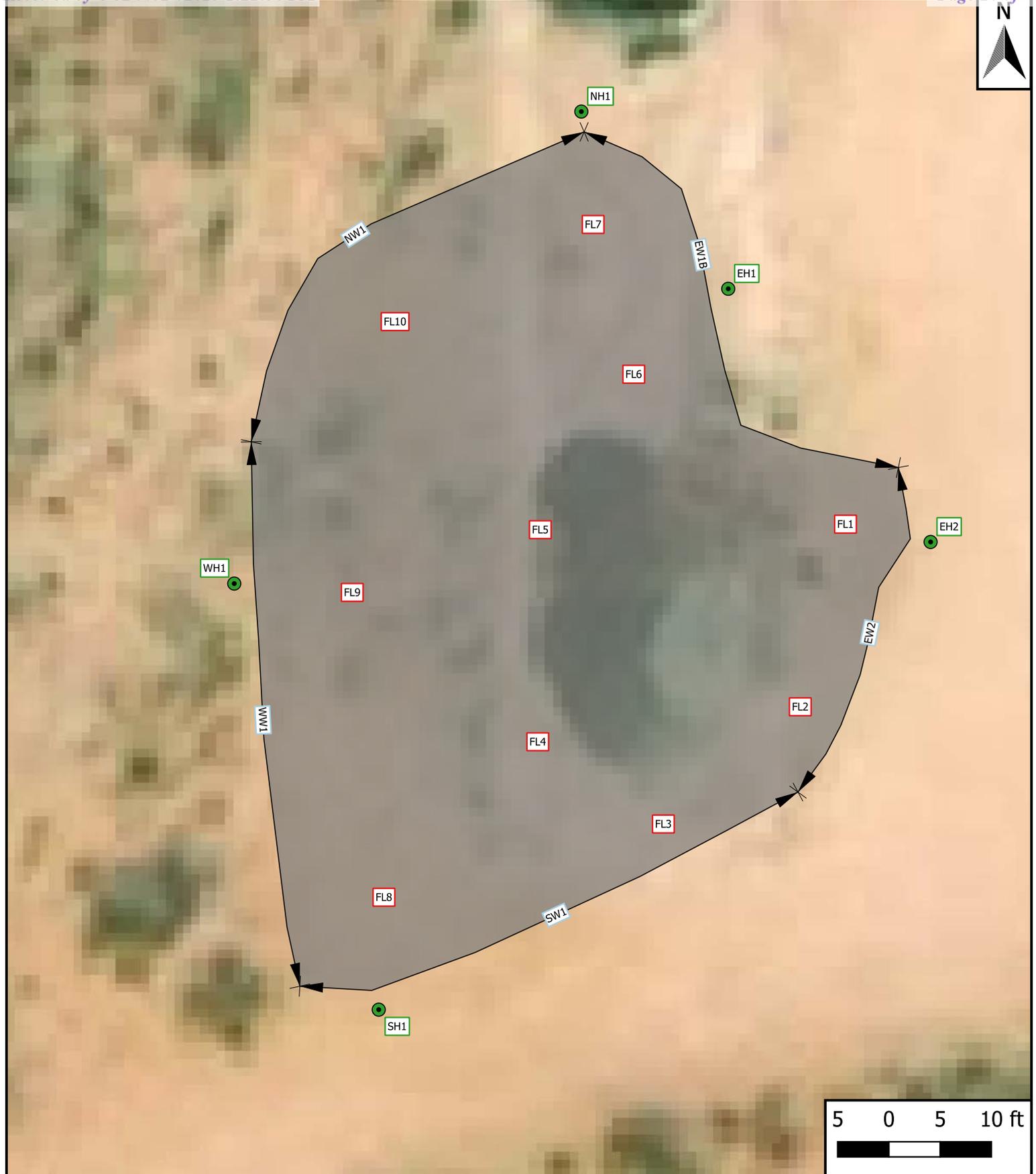
Legend			
	Site Location		500-Ft Radius
	Well - NMOSE		1,000-Ft Radius
	Well - USGS		0.5-Mi Radius
	Well - Exploratory/Monitor		Municipal Boundary
	Well - NMOCD		Potash Mine Workings
	1% Annual Flood Chance		Emergent/Forested Wetlands
	Freshwater Pond/Lake		Karst Potential (Low/Med./High)
	Riverine		

**Figure 2**  
 Site Characterization Map  
 Mewbourne Oil Company  
 McKamey Federal #001Y  
 GPS: 32.63078, -103.72612  
 Lea County



Drafted: bja      Checked: lc      Date: 9/26/23

## **Figure 3 Site & Sample Location Map**



**Legend**

-  Excavation Extent
-  Composite Floor Sample
-  Composite Wall Sample
-  Delineation Sample Location

**Figure 3**

Site & Sample Location Map  
 Mewbourne Oil Company  
 McKamey Federal #001Y  
 GPS: 32.63078, -103.72612  
 Lea County



Drafted: bja      Checked: lc      Date: 9/26/23

**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>McKamey Federal #001Y</b> <b>NMOCD Ref. #: nAPP2316627313</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)
<b>Delineation Samples</b>											
NH1	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EH1	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
EH2	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SH1	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
WH1	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
<b>Excavation Samples</b>											
NW1	8/31/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
EW1	8/31/2023	0-0.5	Excavated	<0.050	<0.300	<10.0	2,370	<b>2,370</b>	685	<b>3,060</b>	16.0
EW1B	9/11/2023	0-0.5	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
EW2	8/31/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW1	8/31/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
WW1	8/31/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
FL 1 @ 6 IN	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL 2 @ 1 FT	8/31/2023	1	In-Situ	<0.050	<0.300	<10.0	246	246	66.5	313	368
FL 3 @ 1 FT	8/31/2023	1	In-Situ	<0.050	<0.300	<10.0	85.3	85.3	52.2	138	576
FL 4 @ 1 FT	8/31/2023	1	In-Situ	<0.050	<0.300	<10.0	132	132	71.7	204	112
FL 5 @ 6 IN	8/31/2023	0.5	Excavated	<0.050	<0.300	<10.0	2,380	<b>2,380</b>	633	<b>3,010</b>	992
FL 5 @ 1 FT	9/11/2023	0-0.5	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
FL 6 @ 6 IN	8/31/2023	0.5	Excavated	<0.050	<0.300	<10.0	1,480	<b>1,480</b>	426	1,910	2,600
FL 6 @ 1 FT	9/11/2023	0-0.5	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
FL 7 @ 6 IN	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	878	878	278	1,160	432
FL 8 @ 6 IN	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL 9 @ 6 IN	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 10 @ 6 IN	8/31/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0

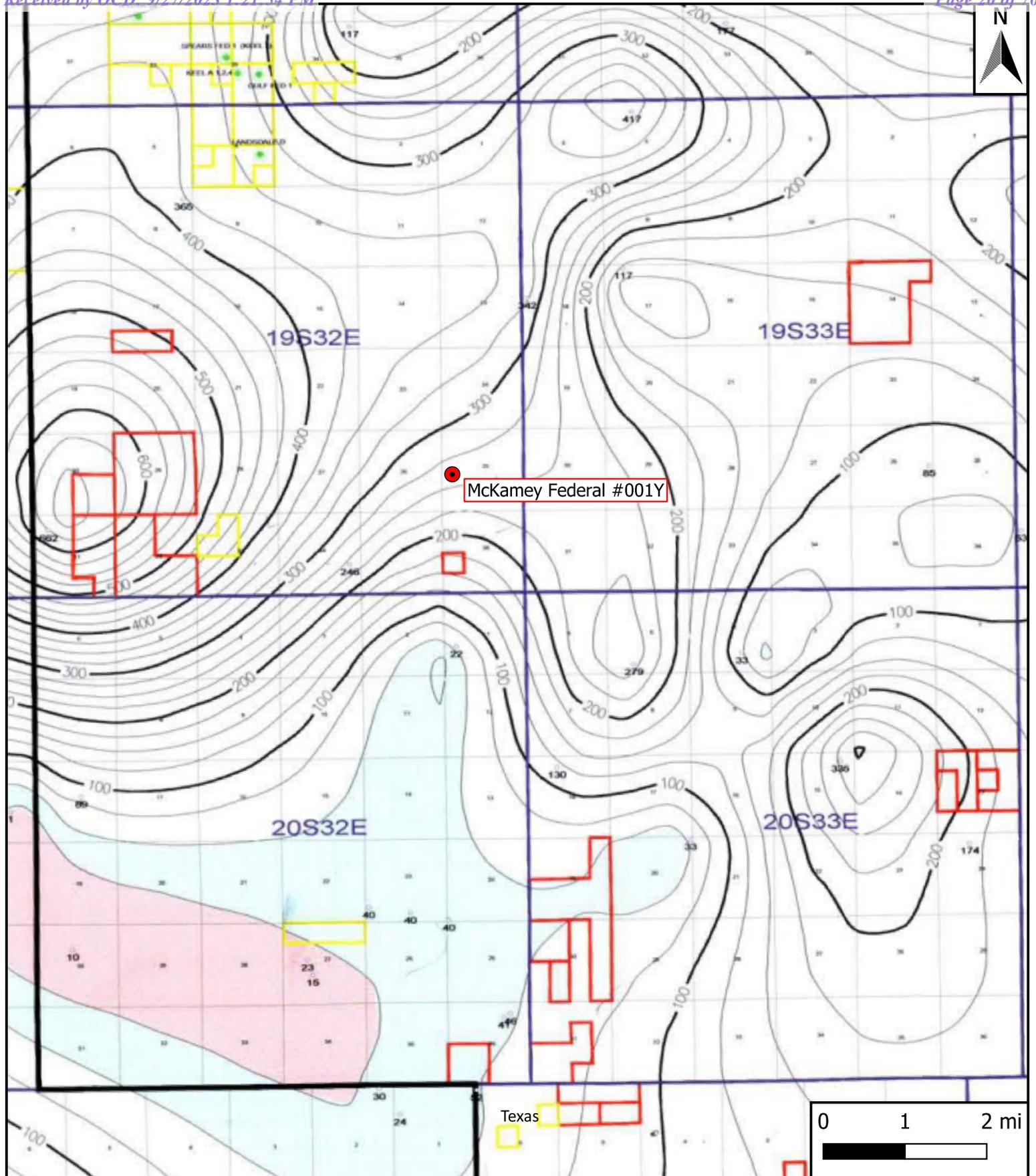
Dash (-): Sample not analyzed for that constituent.

**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  
 McKamey Federal #001Y  
 GPS: 32.63078, -103.72612  
 Lea County



Drafted: bja      Checked: lc      Date: 8/15/23



---

# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

---

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

No records found.

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

**Easting (X):** 619497.89

**Northing (Y):** 3611072.78

**Radius:** 1610

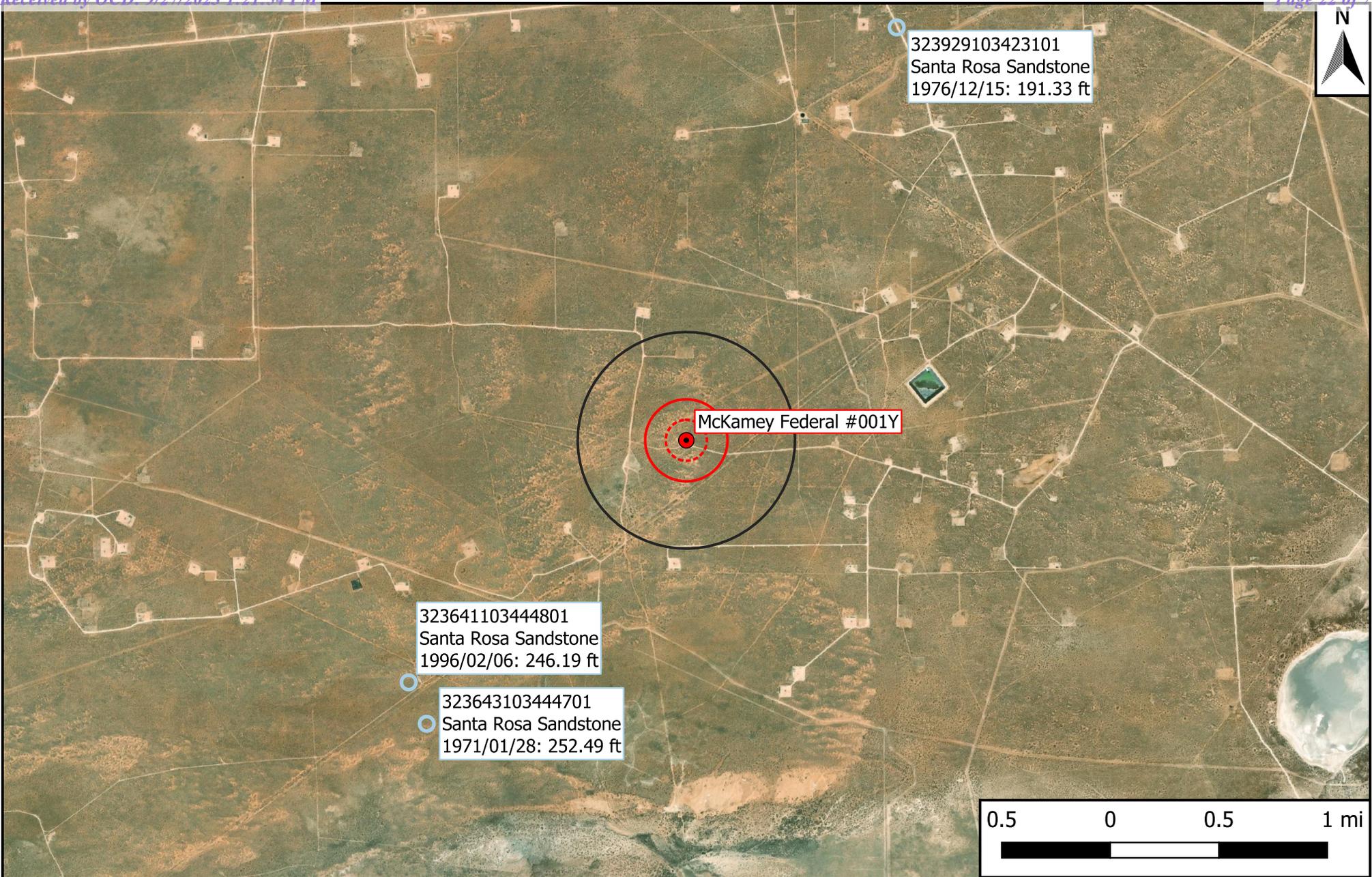
---

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.

---

8/11/23 10:43 AM

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



- 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  
 McKamey Federal #001Y  
 GPS: 32.63078, -103.72612  
 Lea County



Drafted: bja

Checked: lc

Date: 8/15/23



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Data Category: Groundwater Geographic Area: United States GO

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Groundwater levels for the Nation

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =  
• 323641103444801

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

USGS 323641103444801 19S.32E.34.42322

Lea County, New Mexico  
Latitude 32°36'53", Longitude 103°44'52" NAD27  
Land-surface elevation 3,559.00 feet above NGVD29  
The depth of the well is 575 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Santa Rosa Sandstone (231SNRS) 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
1965-11-18			D	263.84			1	Z			A
1968-06-27			D	255.50			1	Z			A
1971-01-28			D	252.27			1	Z			A
1976-12-14			D	247.38			1	Z			A
1986-03-27			D	248.74			1	Z			A
1991-05-24			D	248.54			1	Z			A
1996-02-06			D	246.19			1	S			A

Explanation

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

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

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



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0.29 0.24 nadww02



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Groundwater levels for the Nation

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**Search Results -- 1 sites found**

Agency code = usgs  
site\_no list =  
• 323643103444701

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

**USGS 323643103444701 19S.32E.34.421442**

Lea County, New Mexico  
Latitude 32°36'43", Longitude 103°44'47" NAD27  
Land-surface elevation 3,553 feet above NAVD88  
The depth of the well is 575 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

**Output formats**

- [Table of data](#)
- [Tab-separated data](#)
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- [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
1965-11-18		D	72019	262.85			1	Z			A
1971-01-28		D	72019	252.49			1	Z			A

Explanation

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

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

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



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0.3 0.25 nadww02



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Data Category: Groundwater   
 Geographic Area: United States

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[Groundwater levels for the Nation](#)

**i** Important: [Next Generation Monitoring Location Page](#)

**Search Results -- 1 sites found**

Agency code = usgs

site\_no list =  
 • 323929103423101

Minimum number of levels = 1

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

**USGS 323929103423101 19S.33E.18.133223**

Lea County, New Mexico

Latitude 32°39'29", Longitude 103°42'31" NAD27

Land-surface elevation 3,636 feet above NAVD88

The depth of the well is 870 feet below land surface.

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

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

**Output formats**

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1968-03-15			D	72019	231.04		1	Z			A
1971-01-28			D	72019	211.86		1	Z			A
1976-12-15			D	72019	191.33		1	Z			A

Explanation

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

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

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0.29 0.25 nadww02

**DRILLING PROGRAM  
EOG RESOURCES, INC.  
LUSK "26" FEDERAL NO. 1  
1,832' FSL & 660' FEL  
SEC. 26, T19S, R32E  
LEA COUNTY, NM**

Obtained from the Well  
File Documents in the  
NMOCD Imaging System  
for well #30-025-35600.

**1. GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:**

Yates	2950'
Delaware	4925'
Bone Spring	7750'
Wolfcamp	10900'
Strawn	12150'
Atoka Shale	12600'
Morrow Clastics	13100'
Lower Morrow	13575'
Mississippian	13675'

**3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:**

Upper Permian Sands	Above 250'	Fresh Water
Delaware	4925'	Oil
Bone Spring	8500'	Oil
Wolfcamp	10900'	Oil
Strawn	12150'	Oil
Morrow	13200'	Gas

**4. CASING PROGRAM**

<u>Hole Size</u>	<u>Interval</u>	<u>OD Casing</u>	<u>Weight Grade Jt.</u>	<u>Cond. Type</u>
14 3/4"	0-600'	11 3/4"	42# H-40	ST&C
11"	0-4000'	8 5/8"	32# J-55	LT&C
11"	4000-4600'	8-5/8"	32# HCK	LT&C
7 7/8"	0-13700'	5 1/2"	17# S95/P110	L&TC

Cementing Program:

- 11 3/4" Surface Casing: Cement to surface with 150 sx Prem Plus, 3% Econolite, 25 Calcium Chloride, 0.25#/sx Flocele, 150 sx Prem Plus, 2% Calcium Chloride
  
- 8 5/8" Intermediate: Cement to surface with 900 sx Interfill C, .25#/sx flocele, 250 sx Premium Plus, 2% Calcium Chloride
  
- 5 1/2" Production: Cement w/930 sx Premium, 3% Econolite, 5#/sx Salt (3%), 0.2% HR5, .25#/sk Flocele, 250 sx Prem 50/50 Poz mix 'A', 2% Halliburton-Gel First 2%, .5% Halad-322. This is designed to bring TOC to 5000'.

Mewbourne Oil Company, McKamey 25 B2MD Fed Com #1H

Sec 25, T19S, R32E

SL: 210' FSL & 660' FWL

BHL: 330' FNL & 330' FWL

Extracted from the "Application for Permit to Drill or Reenter" in the NMOCD Imaging System for well #30-025-43215.

1. Geologic Formations

TVD of target	9878'	Pilot hole depth	NA
MD at TD:	14425'	Deepest expected fresh water:	250'

Reef

Formation	Depth (TVD) from KB)	Water/Mineral Bearing/Target Zone?	Hazards
Quaternary Alluvium	Surface	Water	
Rustler	1180	Water	
Top of Salt	1460	Salt	
Castile (Base of Salt)	2704		
Yates	2970		
Seven Rivers			
Capitan Reef	3200		
Delaware Group	4920	Oil/Gas	
Bone Spring	7810	Oil/Gas	
2 <sup>nd</sup> Bone Spring	9420	Target Zone	
Wolfcamp		Will Not Penetrate	
Cisco			
Canyon			
Strawn			
Atoka			
Morrow			
Barnett Shale			
Woodford Shale			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

## **Appendix B Field Data**



## **Appendix C Photographic Log**

### Photographic Log

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

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

### Photographic Log

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

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

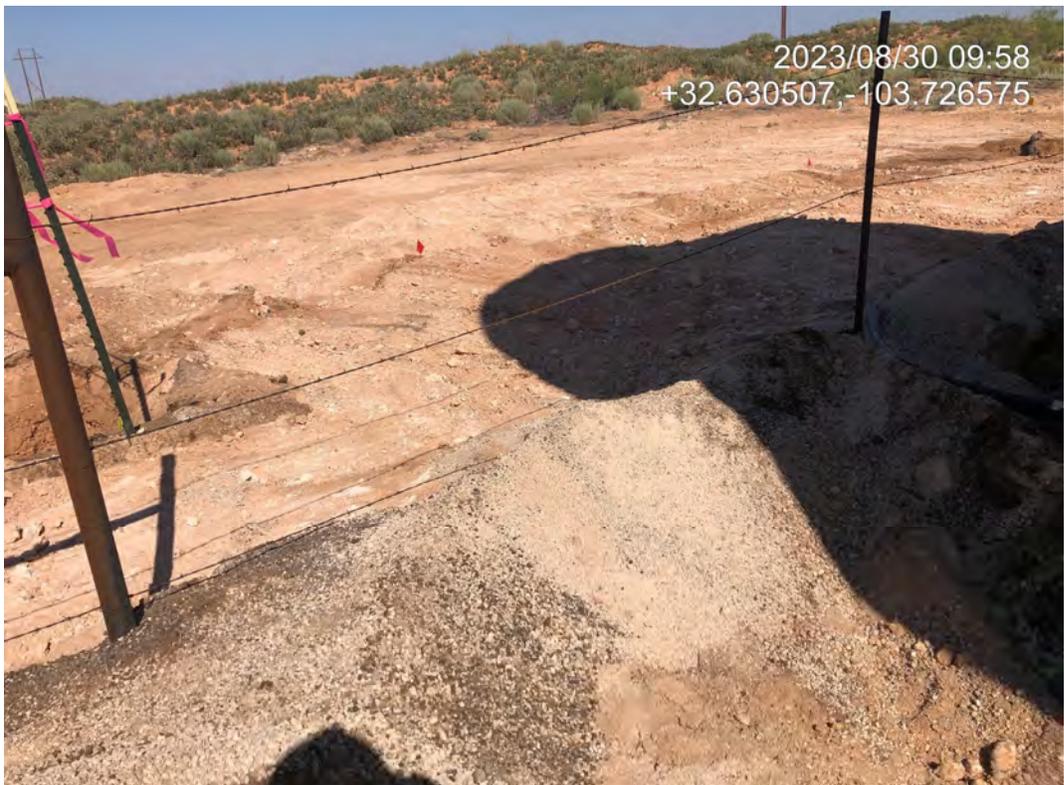
### Photographic Log

<b>Photo Number:</b> 5	
<b>Photo Direction:</b> Northwest	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 6	
<b>Photo Direction:</b> South-Southeast	
<b>Photo Description:</b>  View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 7	
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 8	
<b>Photo Direction:</b> Northwest	
<b>Photo Description:</b>  View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 9	 <p>2023/08/30 09:59 +32.630426,-103.726634</p>
<b>Photo Direction:</b> North-Northwest	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 10	 <p>September 15, 2023 at 10:44 AM +32.630714,-103.726398</p>
<b>Photo Direction:</b> South-Southwest	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

### Photographic Log

<b>Photo Number:</b> 11	 <p>September 15, 2023 at 10:45 AM +32.630714, -103.726398</p>
<b>Photo Direction:</b> South-Southwest	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

<b>Photo Number:</b> 12	 <p>September 15, 2023 at 10:45 AM +32.630714, -103.726398</p>
<b>Photo Direction:</b> West	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

### Photographic Log

<b>Photo Number:</b> 13	 <p>September 15, 2023 at 10:45 AM +32.630714,-103.726398</p>
<b>Photo Direction:</b> West	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

<b>Photo Number:</b> 14	 <p>September 15, 2023 at 10:45 AM +32.630460,-103.726597</p>
<b>Photo Direction:</b> North	
<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

---

September 07, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: MCKAMEY FED #0014

Enclosed are the results of analyses for samples received by the laboratory on 08/31/23 15:42.

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: 08/31/2023  
 Reported: 09/07/2023  
 Project Name: MCKAMEY FED #0014  
 Project Number: MEWBOURNE  
 Project Location: RURAL HOBBS

Sampling Date: 08/31/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: NW 1 (H234744-01)**

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	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/01/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 74.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: NH 1 (H234744-02)**

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	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/01/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 88.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: SW 1 (H234744-03)**

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	09/01/2023	ND	1.90	95.1	2.00	5.12		
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51		
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81		
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20		
Total BTEX	<0.300	0.300	09/01/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	48.0	16.0	09/01/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72		
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62		
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND						

Surrogate: 1-Chlorooctane 76.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.0 % 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:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: SH 1 (H234744-04)**

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	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/01/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 79.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: WH 1 (H234744-05)**

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	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	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	<16.0	16.0	09/01/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 80.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: WW 1 (H234744-06)**

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	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/01/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 72.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: EW 1 (H234744-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/01/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	2370	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	685	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 65.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: EW 2 (H234744-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	09/01/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/06/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/06/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/06/2023	ND					

Surrogate: 1-Chlorooctane 76.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: EH 1 (H234744-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	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	16.0	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 64.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 63.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: EH 2 (H234744-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 60.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 59.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 1 @ 6 IN. (H234744-11)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 80.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 2 @ 1 FT. (H234744-12)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>368</b>	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>246</b>	10.0	09/01/2023	ND	176	87.9	200	7.62	
<b>EXT DRO &gt;C28-C36</b>	<b>66.5</b>	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 72.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 3 @ 1 FT. (H234744-13)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>576</b>	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>85.3</b>	10.0	09/01/2023	ND	176	87.9	200	7.62	
<b>EXT DRO &gt;C28-C36</b>	<b>52.2</b>	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 83.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 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:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 4 @ 1 FT. (H234744-14)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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
<b>Chloride</b>	<b>112</b>	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>132</b>	10.0	09/01/2023	ND	176	87.9	200	7.62	
<b>EXT DRO &gt;C28-C36</b>	<b>71.7</b>	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 76.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 5 @ 6 IN. (H234744-15)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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
<b>Chloride</b>	<b>992</b>	16.0	09/01/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	09/01/2023	ND	175	87.7	200	3.72		
<b>DRO &gt;C10-C28*</b>	<b>2380</b>	10.0	09/01/2023	ND	176	87.9	200	7.62		
<b>EXT DRO &gt;C28-C36</b>	<b>633</b>	10.0	09/01/2023	ND						

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 167 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 6 @ 6 IN. (H234744-16)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2600</b>	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>1480</b>	10.0	09/01/2023	ND	176	87.9	200	7.62	
<b>EXT DRO &gt;C28-C36</b>	<b>426</b>	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 73.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 7 @ 6 IN. (H234744-17)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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
<b>Chloride</b>	<b>432</b>	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>878</b>	10.0	09/01/2023	ND	176	87.9	200	7.62	
<b>EXT DRO &gt;C28-C36</b>	<b>278</b>	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 71.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 8 @ 6 IN. (H234744-18)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	64.0	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	175	87.7	200	3.72	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	176	87.9	200	7.62	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 61.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 61.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 9 @ 6 IN. (H234744-19)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	188	94.2	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	196	97.9	200	0.743	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 83.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.9 % 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:	08/31/2023	Sampling Date:	08/31/2023
Reported:	09/07/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FED #0014	Sampling Condition:	Cool & Intact
Project Number:	MEWBOURNE	Sample Received By:	Dionica Hinojos
Project Location:	RURAL HOBBS		

**Sample ID: FL 10 @ 6 IN. (H234744-20)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2023	ND	1.90	95.1	2.00	5.12	
Toluene*	<0.050	0.050	09/01/2023	ND	1.91	95.7	2.00	5.51	
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	2.05	102	2.00	4.81	
Total Xylenes*	<0.150	0.150	09/01/2023	ND	6.16	103	6.00	4.20	
Total BTEX	<0.300	0.300	09/01/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	09/01/2023	ND	400	100	400	7.69	

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	09/01/2023	ND	188	94.2	200	4.42	
DRO >C10-C28*	<10.0	10.0	09/01/2023	ND	196	97.9	200	0.743	
EXT DRO >C28-C36	<10.0	10.0	09/01/2023	ND					

Surrogate: 1-Chlorooctane 76.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

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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

1062

Company Name: <u>E tech</u>		<b>BILL TO</b>			<b>ANALYSIS REQUEST</b>																
Project Manager: <u>Lane Cronshaw</u>		P.O. #:																			
Address: <u>2617 West Marland</u>		Company: <u>MW/Bourn</u>																			
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		Attn: <u>Jeff Broom</u>																			
Phone #: _____ Fax #: _____		Address: _____																			
Project #: _____ Project Owner: <u>MW/Bourn</u>		City: <u>Hobbs</u>																			
Project Name: <u>MCKamey Fed # 0014</u>		State: <u>NM</u> Zip: _____																			
Project Location: <u>Rural Hobbs</u>		Phone #: _____																			
Sampler Name: <u>Dominic Casarez</u>		Fax #: _____																			
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(GRAB OR (C)OMP. # CONTAINERS)	MATRIX	PRESERV.	SAMPLING	DATE	TIME	Chloride	TPH (8015M)	BTEX (801B)										
<u>H234744</u>	DC 1	NW1	C	SOIL	✓	ICE / COOL	8-31		✓	✓	✓										
	2	NH1																			
	3	SW1																			
	4	SH1																			
	5	WH1																			
	6	WW1																			
	7	EW1																			
	8	EW2																			
	9	EH1																			
	10	EH2																			

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Relinquished By: <u>[Signature]</u>		Date: <u>8-31/23</u>		Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: <u>15:42</u>		Time: _____		Time: _____		All Results are emailed. Please provide Email address:			
Relinquished By: _____		Date: _____		Received By: _____		REMARKS:			
Time: _____		Time: _____		Time: _____		Turnaround Time: <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush			
Delivered By: (Circle One) _____		Observed Temp. °C: <u>64.4</u>		Sample Condition: <input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact		CHECKED BY: (Initials) <u>[Signature]</u>		Bacteria (only) Sample Condition: <input type="checkbox"/> Cool <input type="checkbox"/> Intact	
Sampler - UPS - Bus - Other: _____		Corrected Temp. °C: <u>64.0</u>		<input type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID #140		<input type="checkbox"/> Yes <input type="checkbox"/> No	
FORM-006 R 3.4 07/11/23		_____		<input type="checkbox"/> No <input type="checkbox"/> No		Correction Factor 0°C		<input type="checkbox"/> No <input type="checkbox"/> No	

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

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

Page 24 of 24

Company Name: <b>Etech</b>		<b>BILL TO</b>			<b>ANALYSIS REQUEST</b>						
Project Manager: <b>Lane Crenshaw</b>		P.O. #:									
Address: <b>2617 West Marland</b>		Company: <b>MENBORN</b>									
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88240</b>		Attn: <b>Jeff Broom</b>									
Phone #: _____ Fax #: _____		Address: _____									
Project #: _____ Project Owner: _____		City: <b>Hobbs</b>									
Project Name: <b>McKamey Fed # 0014</b>		State: <b>NM</b> Zip: _____									
Project Location: <b>Rural Hobbs</b>		Phone #: _____			<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (8015M)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021B)</div> </div>						
Sampler Name: <b>Dominic Casarez</b>		Fax #: _____									
FOR LAB USE ONLY <b>H234744</b>		MATRIX		PRESERV.	SAMPLING						
Lab I.D.	Sample I.D.	(GRAB OR (C)OMP. # CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	ACID/BASE: ICE / COOL OTHER:	DATE	TIME					
DC 11	FL1 @ 6in	1	✓	✓	8-31		✓	✓	✓		
12	FL2 @ 1ft										
13	FL3 @ 1ft										
14	FL4 @ 1ft										
15	FL5 @ 6in										
16	FL6 @ 6in										
17	FL7 @ 6in										
18	FL8 @ 6in										
19	FL9 @ 6in										
20	FL10 @ 6in										

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Relinquished By:	Date: <b>8-31/23</b>	Received By:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
Time: <b>15:42</b>	Time: _____	Time: _____	All Results are emailed. Please provide Email address: _____	
Relinquished By: _____	Date: _____	Received By: _____	REMARKS: _____	
Time: _____	Time: _____	Time: _____	Time: _____	
Delivered By: (Circle One)	Observed Temp. °C: <b>6.48</b>	Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact	CHECKED BY: (Initials)	Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Sampler - UPS - Bus - Other:	Corrected Temp. °C: <b>7.9/1/23</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition
		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Cool <input type="checkbox"/> Intact
			Thermometer ID #140	<input type="checkbox"/> Yes <input type="checkbox"/> No
			Correction Factor 0°C	<input type="checkbox"/> Yes <input type="checkbox"/> No
				Observed Temp. °C
				Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

---

September 13, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: MCKAMEY FEDERAL 1Y

Enclosed are the results of analyses for samples received by the laboratory on 09/12/23 10:08.

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:	09/12/2023	Sampling Date:	09/11/2023
Reported:	09/13/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FEDERAL 1Y	Sampling Condition:	Cool & Intact
Project Number:	18295	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: EW 1B (H234912-01)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2023	ND	191	95.5	200	3.61	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	202	101	200	1.82	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					
<i>Surrogate: 1-Chlorooctane</i>		<i>77.1 %</i>	<i>48.2-134</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>79.9 %</i>	<i>49.1-148</i>						

**Sample ID: FL 5 @ 1FT (H234912-02)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/12/2023	ND	191	95.5	200	3.61	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	202	101	200	1.82	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					
<i>Surrogate: 1-Chlorooctane</i>		<i>78.3 %</i>	<i>48.2-134</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>79.0 %</i>	<i>49.1-148</i>						

Cardinal Laboratories

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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:	09/12/2023	Sampling Date:	09/11/2023
Reported:	09/13/2023	Sampling Type:	Soil
Project Name:	MCKAMEY FEDERAL 1Y	Sampling Condition:	Cool & Intact
Project Number:	18295	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FL 6 @ 1FT (H234912-03)**

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	09/12/2023	ND	191	95.5	200	3.61	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	202	101	200	1.82	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					
<hr/>									
Surrogate: 1-Chlorooctane	75.6 %	48.2-134							
Surrogate: 1-Chlorooctadecane	77.9 %	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

Notes and Definitions

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

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



## **Appendix E**

# **Regulatory Correspondence**

**From:** [Lance Crenshaw](#)  
**To:** [Enviro, OCD, EMNRD](#); [Connor Walker](#); [jbroom@mewbourne.com](mailto:jbroom@mewbourne.com)  
**Cc:** [Ben Arguijo](#); [Matthew A. Grieco](#)  
**Subject:** Extension request for projects  
**Date:** Tuesday, August 1, 2023 11:48:02 AM

---

Dear NMOCD Environmental Bureau,

Mewbourne Oil Company (Mewbourne) has contracted Etech Environmental & Safety Solutions, Inc. (Etech), to conduct remediation activities for the releases known as the Santo Nino SWD Line (NMOCD Incident # nAPP2316042324) and the Mckamey Fed #1Y (nAPP2316627313). Both are located in Eddy County. Pursuant to NMOCD regulations, a work plan or closure report is due for the Santo Nino release on **August 28, 2023 and on the McKamey release on August 31, 2023**. Etech has started excavation activities at the Santo Nino SWD Line and plans to move to the McKamey directly following the completion of remediation activities at the Santo Nino. We are also working another release for Mewbourne, the Chile Verde Water Transfer Line, which most of our crews are dedicated to. We just want to make sure we get everything done in a timely manner and are able to meet deadlines, with multiple crews working.

In consideration of this, Etech, on behalf of Mewbourne, requests a **30 day extension** until **Friday, September 29, 2023**, to allow us to fully excavate the sites, gather excavation confirmation samples, backfill the site and prepare a site closure request.

If you have any questions or need any additional information, please do not hesitate to contact me by phone or email.

Thank you for your time and consideration.

**Lance Crenshaw**  
**Etech Environmental & Safety Solutions**  
**575-631-2532**

**From:** [Velez, Nelson, EMNRD](#)  
**To:** [Lance Crenshaw](#)  
**Cc:** [cwalker@mewbourne.com](#); [jbroom@mewbourne.com](#); [Ben Arguijo](#); [Matthew A. Grieco](#); [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#)  
**Subject:** Extension request for projects: Santo Nino SWD Line (NMOCD Incident # nAPP2316042324) and the Mckamey Fed #1Y (nAPP2316627313)  
**Date:** Wednesday, August 2, 2023 8:42:14 AM  
**Attachments:** [Outlook-ol0aob5r.png](#)

---

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

Good morning Lance,

Your 30-day (September 29, 2023) time extension request is approved. Remediation Due date has been updated for both incidents.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

**Nelson Velez • Environmental Specialist - Adv**  
**Environmental Bureau | EMNRD - Oil Conservation Division**  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>



previous email submittal;

---

**From:** Tamarah Kendrick <[tamarah@etechenv.com](mailto:tamarah@etechenv.com)>  
**Sent:** Thursday, August 24, 2023 9:04 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>; [blm\\_nm\\_cfo\\_spill@blm.gov](mailto:blm_nm_cfo_spill@blm.gov)  
**Cc:** Lance Crenshaw <[lance@etechenv.com](mailto:lance@etechenv.com)>; Joel Lowry <[joel@etechenv.com](mailto:joel@etechenv.com)>  
**Subject:** [EXTERNAL] nAPP2316627313 - Mewbourne Oil Company -McKamey Federal #001Y - Sampling Notification

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 08/28/2023.

nAPP2316627313 - McKamey Federal #001Y

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@etechenv.com](mailto:lance@etechenv.com)

*Tamarah Kendrick*  
**Project Coordinator**  
**Etech - Environmental and Safety Solutions**  
**2617 W. Marland Blvd**  
**Hobbs, NM 88240**



---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Thursday, August 24, 2023 9:27 AM  
**To:** Tamarah Kendrick <tamarah@etechenv.com>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Subject:** RE: [EXTERNAL] nAPP2316627313 - Mewbourne Oil Company -McKamey Federal #001Y - Sampling Notification

Good morning Tamarah,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion 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/>

**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 269665

**CONDITIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 269665
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
scott.rodgers	None	1/16/2024