PREPARED BY SAPEC-ECO, LLC.
PREPARED FOR MAVERICK PERMIAN, LLC.

Proposed Sampling and Remediation Work Plan

SANTA FE #133
nTO1425857071

April 25, 2025

Sapec-Eco
5846 E 21st Place
Tulsa, OK 74114

Attn: NMOCD District 1
1625 N French Dr.
Hobbs, NM 88240

Re: Proposed Sampling and Remediation Work Plan
NMOCD Incident Number: ***nTO1425857071***
Santa Fe #133 API No. 30-025-32333
Unit O, Section 31, Township 17S, Range 35E 435 FSL 1930 FEL Lea County, NM
GPS Coordinates: Latitude 32.7854347 Longitude -103.4947052 NAD83

Sapec-Eco (Sapec) has been contracted by Maverick Permian, LLC. (Maverick) to review and research this historic incident then prepare this proposed sampling and remediation work plan for a produced water release that occurred at the Santa Fe #133 (Site). This incident was assigned Incident ID nTO1425857071 by the New Mexico Oil Conservation Division (NMOCD).

Release Information – nTO1425857071

The initial Form C-141 was submitted for this incident on September 15, 2014, stating "On September 12th, 2014, in the early morning hours, at the Santa Fe 133 Battery, a release of oil and produced water occurred. The release originated from the test heater that fell over and was damaged during heavy thunderstorms. Operations was contacted by an offset operator and informed that the heater had fallen. The lease was shut in at the time of the incident. The affected area was 200 ft. X 200 ft. X 0.25 inches deep and resulted in 10 bbls oil and 10 bbls produced water, with 10 bbls recovered. The affected area will be remediated according to NMOCD guidelines. The lease was shut in at the time of the incident." The initial C-141 was approved by the NMOCD the same day.

Site Characterization

This Site is in Lea County, NM, approximately thirteen (13) miles southwest of Lovington, NM. The release area is in Unit O, Section 31, Township 17S, Range 35E, at 32.7854347 degrees latitude and -103.4947052 degrees longitude. A Location Map is included for reference in Figure 5.

The New Mexico Bureau of Geology and Mineral Resources shows the geology at this Site includes Ogallala Formation. Alluvial and eolian deposits, and petrocalcic soils of the southern High Plains. Locally includes Qoa. A Geologic Unit Map can be found in Appendix C.

The soil types present at the Site are 73% Kimbrough gravelly loam, dry, 0 to 3 percent slopes and 27% Kimbrough-Lea complex, dry, 0 to 3 percent slopes. The drainage class for both types is well drained. Soil type information is according to the United States Department of Agriculture Natural Resources Conservation Service soil survey. The Soil Surveys and a Soil Map can be referenced in Appendix C. Reference Figure 4 for a Topographic Map.

The Site resides in a low karst zone and is approximately 24.46 miles away from the nearest medium karst zone. Figure 3 refers to the Karst Map.

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 38 feet below grade surface (bgs). This information is recorded by L-13392-POD19 which is situated approximately 0.29 miles away from the Site. This information is from 2017. The United States Geological Survey (USGS) offers the site USGS 324657103292801 17S.35E.31.43411 which shows depth to the nearest groundwater is 95 feet bgs. The latest gauge of this site was conducted in 1991, and it is located approximately 255 feet from the Site.

The nearest surface water feature is an Unnamed Pond, and it is located approximately 1.42 miles to the north. The U.S. Fish and Wildlife Service National Wetlands Inventory shows the nearest wetland to be a Freshwater Pond approximately 280 feet southeast. According to Fema's National Flood Hazard Layer search, the Site is situated in Zone D – Area of Undetermined Flood Hazard and is greater than 5 miles away from the nearest flood hazard zone. See Appendix B for referenced Water Surveys and Water-Related Maps.

Readily available data were reviewed to determine if the Site lies within biologically sensitive areas. The U.S. Fish and Wildlife Services (USFWS) Information for Planning and Consultation (IPaC) and the New Mexico Department of Game and

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Fish (NMDGF) Environmental Review Tool (ERT) were queried to determine if sensitive wildlife or plant areas are present at the Site. The Site is not identified to be within biologically sensitive areas where remediation/reclamation would impact sensitive plant or wildlife habitats. A Special Status Plant/Wildlife Map is included in Figure 2.

The remediation area at the Site is in previously disturbed areas developed for oil and gas extraction; therefore, a cultural resource survey will not be required at the Site for planned remediation activities. Should the need arise for the remediation area to extend past the previously disturbed areas, the requirements of the Cultural Properties Protection (CCP) Rule will be followed.

Assessment and Delineation Activities

"At the request of ConocoPhillips, Tetra Tech personnel conducted a records review and a visual Site inspection on June 4, 2020 at the release area evaluate to current conditions at the Site. The formerly impacted area was identified from the description in the C-141 and was corroborated by aerial imagery. Photographic documentation from the visual assessment is included as Attachment C. A list of observations made during the records review and visual Site inspection follow:

- Historical imagery from November 2017 revealed fencing on the lease pad that is a possible indication of remediation on the pad.
- The release location indicated on Figure 1 is interpolated from the description of the release location provided on the C-141.
- No surficial staining was observed in the pad areas during the June 2020 visual Site inspection.
- No staining was observed in the adjacent pasture areas near the Site."

On October 19, 2020, ConocoPhillips submitted a Closure Letter Report requesting closure approval of this incident. This report was denied by the NMOCD on April 18, 2023. This documentation is included as Appendix E.

Proposed Sampling & Remediation Activities

In response to the previously denied Closure Letter Report, Maverick would like to propose the following:

- The area of concern measures approximately 40,000 square feet and is entirely on the previous pad surface including the lease road and a portion of the neighboring pad surface.
- Collect discrete samples from within and around the edges of the release area to evaluate the presence of contaminants. Ninety-five (95) samples will be collected from 19 different sample points within the release area from depths of surface, 1', 2', 3', and 4' bgs. Forty (40) samples will be collected from 8 different sample points around the edges of the release area from depths of surface, 1', 2', 3', and 4' bgs.
- All samples will be put on ice, prepared for delivery, then delivered to Envirotech Analytical Laboratories where they will be analyzed for all the constituents listed in Table 1 19.15.29.12 NMAC.
- A 48-hour sampling notification will be issued to the NMOCD for these sampling events. A variance request is included below for permission to use the delineation samples as confirmations samples depending on the sample results of the soil. A Proposed Sample Map can be found in Figure 1.
- If any samples do not verify delineation, then the "step-out" method will be used for horizontal delineation samples until sample results can confirm delineation. Also, for vertical delineation samples, any samples not verifying delineation will be advanced deeper until sample results can confirm delineation.
- Sample results from that are over the regulatory limits of the <50-foot depth to groundwater section of Table 1 will be measured for total area and affected volume then removed via mechanical excavation means. The contaminated soil will be hauled to an NMOCD-approved disposal facility and clean, like material will be brought to the Site for backfilling the excavated area.
- Once all sample results confirm delineation is complete, and contamination isn't present or has been removed, a remediation closure report will be drafted and submitted to the NMOCD Pay Portal for review/approval.

Variance Request

Maverick would like to respectfully request to use the delineation samples as confirmation samples in the event the laboratory samples results confirm that no contamination is present at any or all of the sample points. Maverick will diligently remediate all contaminants found that have reported results being over the regulatory limits of the <50-foot depth to groundwater section of Table 1 19.15.29.12 NMAC. Chlorides should be no more than 600 mg/kg.

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TPH (GRO+DRO+ORO) should be no more than 100 mg/kg. BTEX should be no more than 50 mg/kg. Benzene should be no more than 10 mg/kg.

Once official verification is received that contaminants are not present, or have been successfully removed from all areas within and around the Site, a remediation closure report will be drafted and submitted for approval.

Request for Proposed Sampling & Remediation Work Plan Approval

Maverick requests that this proposed sampling & remediation work plan for incident ID nTO1425857071 be approved. All rules and regulations set forth in 19.15.29.12 NMAC have been complied with.

For questions or additional information, please reach out to:
Maverick Permian – Bryce Wagoner – Bryce.Wagoner@mavresources.com – (928) 241-1862
Sapec-Eco, LLC – Tom Bynum – tombynum@sapec-eco.com – (580) 748-1613

Attachments

Figures:

1- Proposed Sample Map
2- Special Status Plant/Wildlife Map
3- Karst Map
4- Topographic Map
5- Location Map

Appendices:

Appendix A – Initial Form C-141
Appendix B – Water Surveys & Water-Related Maps
Appendix C – Soil Surveys, Soil Map, & Geologic Unit Map
Appendix D – Photographic Documentation
Appendix E – Closure Letter Report 2020

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Figures:

Proposed Sample Map

Special Status Plant/Wildlife Map

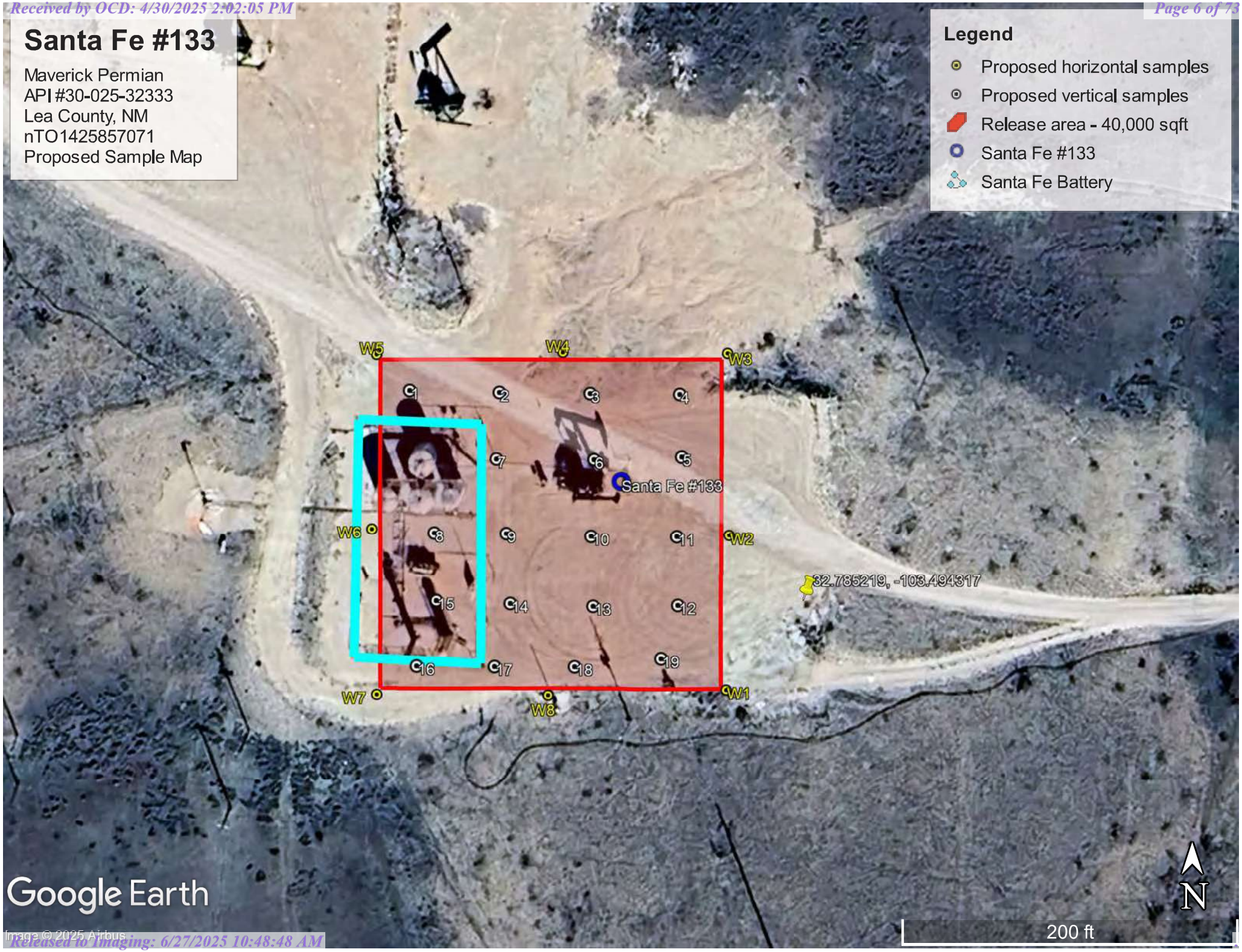
Karst Map

Topographic Map

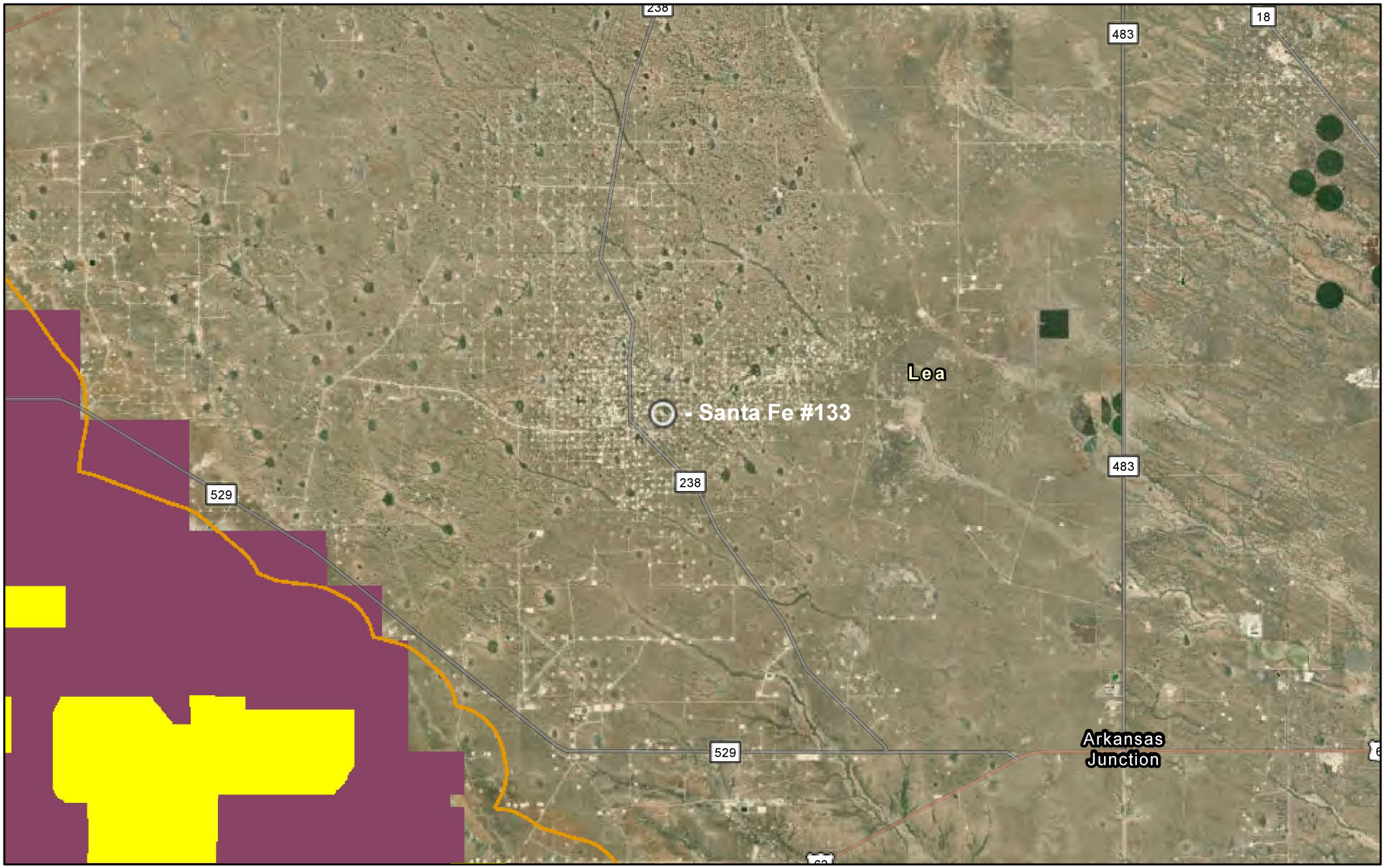
Location Map

Santa Fe #133

Maverick Permian
API #30-025-32333
Lea County, NM
nTO1425857071
Proposed Sample Map



Special Status Plant/Wildlife Map



4/21/2025

Dunes Sage Brush Lizard Habitat
Lesser Prairie Chicken Habitat
Habitat Evaluation Area
Isolated Population Area

World Imagery
Low Resolution 15m Imagery
High Resolution 60cm Imagery
High Resolution 30cm Imagery

Citations
38m Resolution Metadata

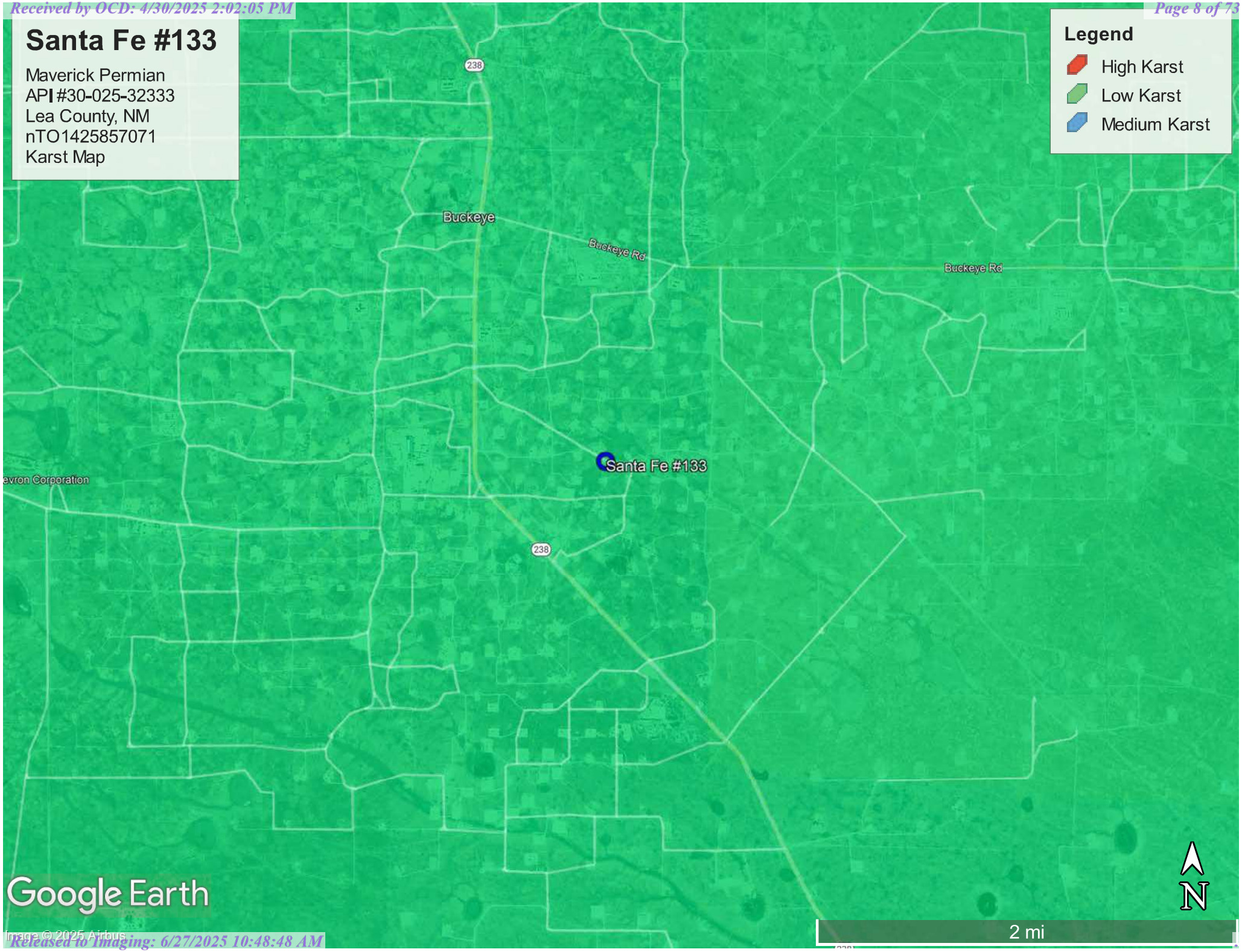
1:188,288

0 1.25 2.5 5 mi
0 2 4 8 km

Earthstar Geographics, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community,

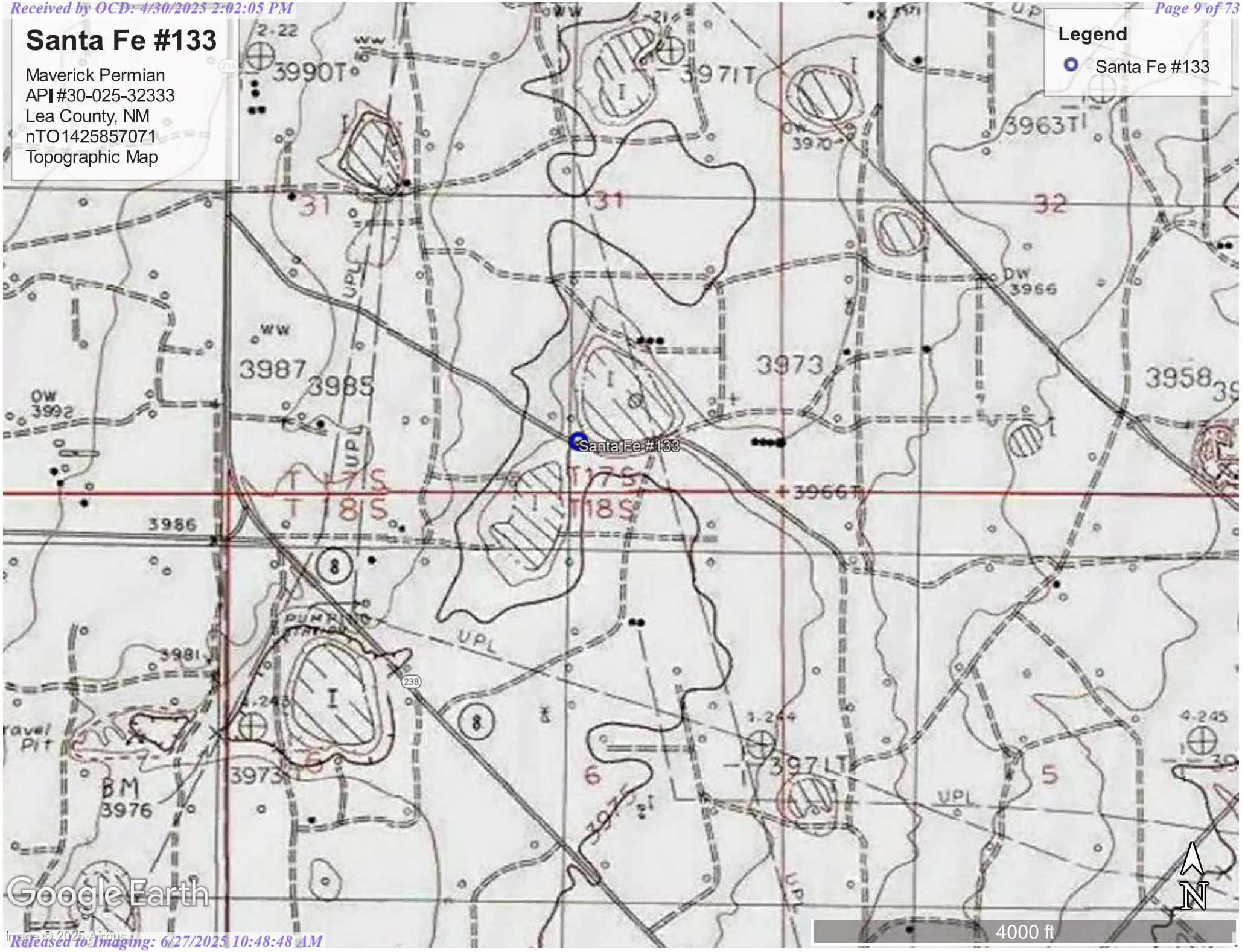
Santa Fe #133

Maverick Permian
API #30-025-32333
Lea County, NM
nTO1425857071
Karst Map



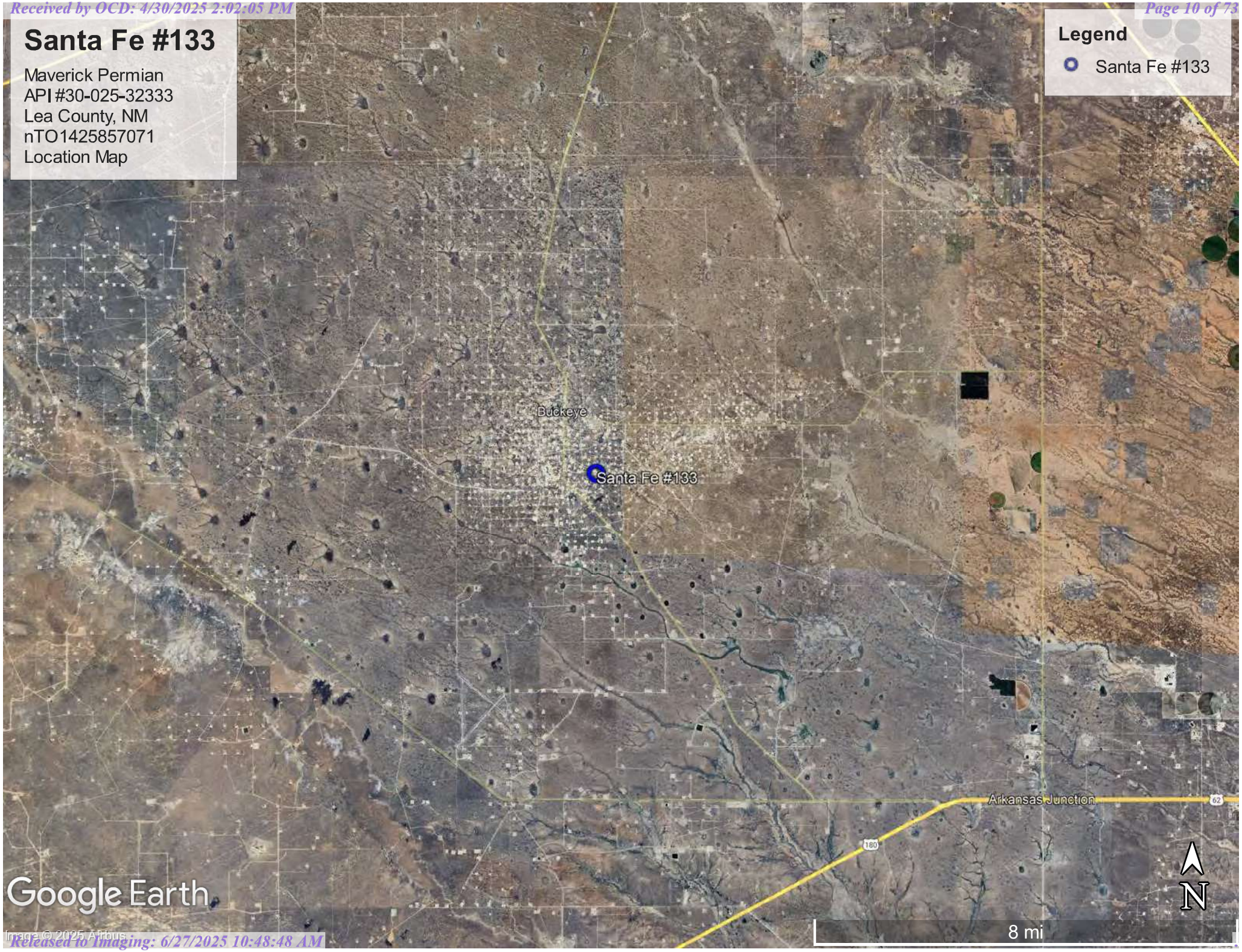
Santa Fe #133

Maverick Permian
API #30-025-32333
Lea County, NM
nTO1425857071
Topographic Map



Santa Fe #133

Maverick Permian
API #30-025-32333
Lea County, NM
nTO1425857071
Location Map



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Appendix A

Initial Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **ConocoPhillips**	Contact: **Spencer Cluff**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-391-3143**
Facility Name: **Santa Fe Battery**	Facility Type: **Heater Treater**

Surface Owner: NMOCD	Mineral Owner NMOCD	API No. 30-025-32333

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	31	17S	35E	435	South	1930	East	**LEA**

Latitude 32.7854367361682 **Longitude -** 103.494735819723

NATURE OF RELEASE

Type of Release: **Spill**	Volume of Release: 20 BBLS	Volume Recovered: 10 BBLS
Source of Release: Heater Treater	Date and Hour of Occurrence **09/11/14 4:00 am**	Date and Hour of Discovery **09/12/2014 7:3- am**
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? **Tomáš Oberding**	
By Whom? **Spencer Cluff**	Date and Hour: **09/12/2014 7:10 am**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On September 12th, 2014, in the early morning hours, at the Santa Fe 133 Battery, a release of oil and produced water occurred. The release originated from the test heater that fell over and was damaged during heavy thunderstorms. Operations was contacted by an offset operator and informed that the heater had fallen. The lease was shut in at the time of the incident. The affected area was 200 ft. X 200 ft. X 0.25 inches deep and resulted in 10 bbls oil and 10 bbls produced water, with 10 bbls recovered. The affected area will be remediated according to NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken.*

The lease was shut in at the time of the incident.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

	OIL CONSERVATION DIVISION	
Signature: *Spencer A. Cluff*	Approved by Environmental Specialist:	
Printed Name: Spencer Cluff		
Title: HSE Lead	Approval Date: 9-15-14	Expiration Date: 11-15-14
E-mail Address: **spencer.a.cluff@conocophillips.com**	Conditions of Approval: Site Supply [illegible] Delineate & remediate area as per NMOCD guide. Submit final C-141 by 11-15-14	Attached ☐ 1RP-3321
Date: 09/15/2014 Phone: 575-391-3143		

* Attach Additional Sheets If Necessary

08-19 2,7817
NTO 1425 85 7071
PTO 1425 85 7207

SEP 16 2014

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Appendix B

Water Surveys

Water-Related Maps

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are smallest to largest)

(meters) (In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Distance	Well Depth	Depth Water	Water Column
L 13392 POD13		L	LE	SE	NW	NE	06	18S	35E	641127.5	3628091.0		442			
L 13392 POD12		L	LE	SE	NW	NE	06	18S	35E	641148.4	3628085.2		456			
L 13392 POD1		L	LE	SE	NW	NE	06	18S	35E	641125.2	3628069.4		461			
L 13392 POD19		L	LE	SW	NE	NE	06	18S	35E	641154.7	3628080.9		462	138		
L 13392 POD2		L	LE	SE	NW	NE	06	18S	35E	641151.2	3628069.8		471			
L 13392 POD3		L	LE	SE	NW	NE	06	18S	35E	641125.5	3628050.9		479			
L 13392 POD4		L	LE	SE	NW	NE	06	18S	35E	641151.5	3628054.4		485			
L 13392 POD15		L	LE	SE	NW	NE	06	18S	35E	641118.6	3628041.6		486	137		
L 13392 POD5		L	LE	SE	NW	NE	06	18S	35E	641123.2	3628029.3		499			
L 13392 POD6		L	LE	SE	NW	NE	06	18S	35E	641144.0	3628032.7		502			
L 13041 POD1		L	LE		NE	NE	06	18S	35E	641151.9	3628026.7		511	130		
L 13041 POD2		L	LE		NE	NE	06	18S	35E	641151.9	3628026.7		511	140		
L 13041 POD3		L	LE		NE	NE	06	18S	35E	641151.9	3628026.7		511	140		
L 13041 POD4		L	LE		NE	NE	06	18S	35E	641151.9	3628026.7		511	140		
L 13392 POD20		L	LE	SE	NW	NE	06	18S	35E	641080.9	3628000.1		515	138		
L 13392 POD14		L	LE	SE	NW	NE	06	18S	35E	641118.3	3628007.1		518	133		
L 13392 POD7		L	LE	SE	NW	NE	06	18S	35E	641149.4	3628017.4		519			

Average Depth to Water: **0 feet**

Minimum Depth: **0 feet**

Maximum Depth: **0 feet**

Record Count: 17

Basin/County Search:
County: LE

UTM Filters (in meters):
Easting: 640965.37
Northing: 3628502.87
Radius: 00520

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

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): (POD -19) LP-CHEVRON GRAYBURG 6-INCH MW13	OSE FILE NUMBER(S): L-13392
WELL OWNER NAME(S): PLAINS ALL AMERICAN PIPELINE	PHONE (OPTIONAL): 806-592-2555
WELL OWNER MAILING ADDRESS: 505 N BIG SPRING, SUITE 600	CITY: MIDLAND STATE: TX ZIP: 79701

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	46	~~896~~ 53.76	N
	LONGITUDE	103	29	33.864	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE: LOT1-5, SE4NW4,SW4NE4,6,18S 35E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER: WD-1710	NAME OF LICENSED DRILLER: MARTIN STRAUB	NAME OF WELL DRILLING COMPANY: STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
11-13-17	11-13-17	138'	138'	N/A

COMPLETED WELL IS: ○ ARTESIAN ○ DRY HOLE ◉ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID: ◉ AIR ○ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ◉ ROTARY ○ HAMMER ○ CABLE TOOL ○ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
118'	138'	6 1/4"	SCH 40 .010 SCREEN	FJ	2"	0.154	.010
+3	118'	6 1/4"	SCH 40 RISER	FJ	2"	0.154	RISER

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
116'	138'	6 1/4"	12 BAGS OF 20/40 SAND		TOPLOAD
110'	116'	6 1/4"	4 BAG OF 3/8 HOLEPLUG		TOPLOAD
0	110'	61/4"	14 BAGS CEMENT GROUT		TREMIE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER: L-13392	POD NUMBER: 19	TRN NUMBER: 615428
LOCATION: 18S.35E.6.2.2.3	monitor	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	3'	3'	BROWN SILTY CLAY & CALICHE	○ Y ◉ N	N/A
3'	10'	7'	HARD CALICHE LAYERS	○ Y ◉ N	N/A
10'	27'	17'	MEDIUM HARD CALICHE	○ Y ◉ N	N/A
27"	38'	11'	TAN SILTY SAND & SANDSTONE	○ Y ◉ N	N/A
38'	61'	23'	TAN SANDSTONE & SILTY SAND	○ Y ◉ N	N/A
61'	80'	19'	TAN SILTY SAND	○ Y ◉ N	N/A
80'	83'	3'	TAN SANDSTONE	○ Y ◉ N	N/A
83'	138'	55'	TAN SILTY SAND & SANDSTONE LAYERS	◉ Y ○ N	N/A
TD	138'			◉ Y ○ N	N/A
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

4X4X60 HIGH RISE
3X3 PAD
LEA COUNTY NM

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

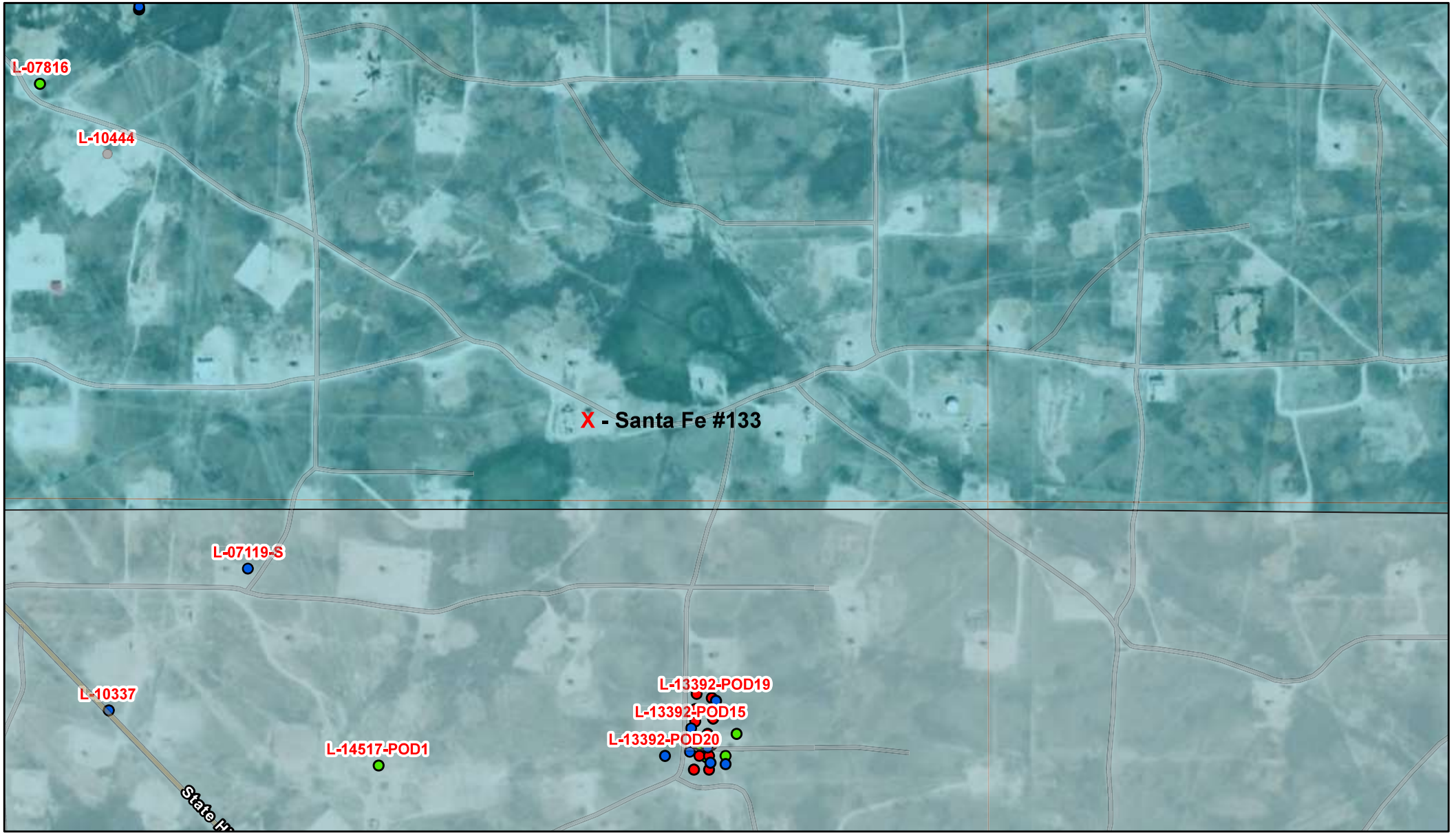
Martin Straub — MARTIN STRAUB — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

12-15-17 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	L-13392	POD NUMBER	19	TRN NUMBER	615428
LOCATION	185.35E.6.2.2.3			Monitor	PAGE 2 OF 2

OSE POD Location Map



4/21/2025, 1:26:08 PM

GIS WATERS PODs
- Active
- Pending
- Inactive
- Plugged

OSE District Boundary
Water Right Regulations
Closure Area

New Mexico State Trust Lands
Both Estates

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Online web user

This is an unofficial map from the OSE's online application.

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

site_no list =

- 324657103292801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

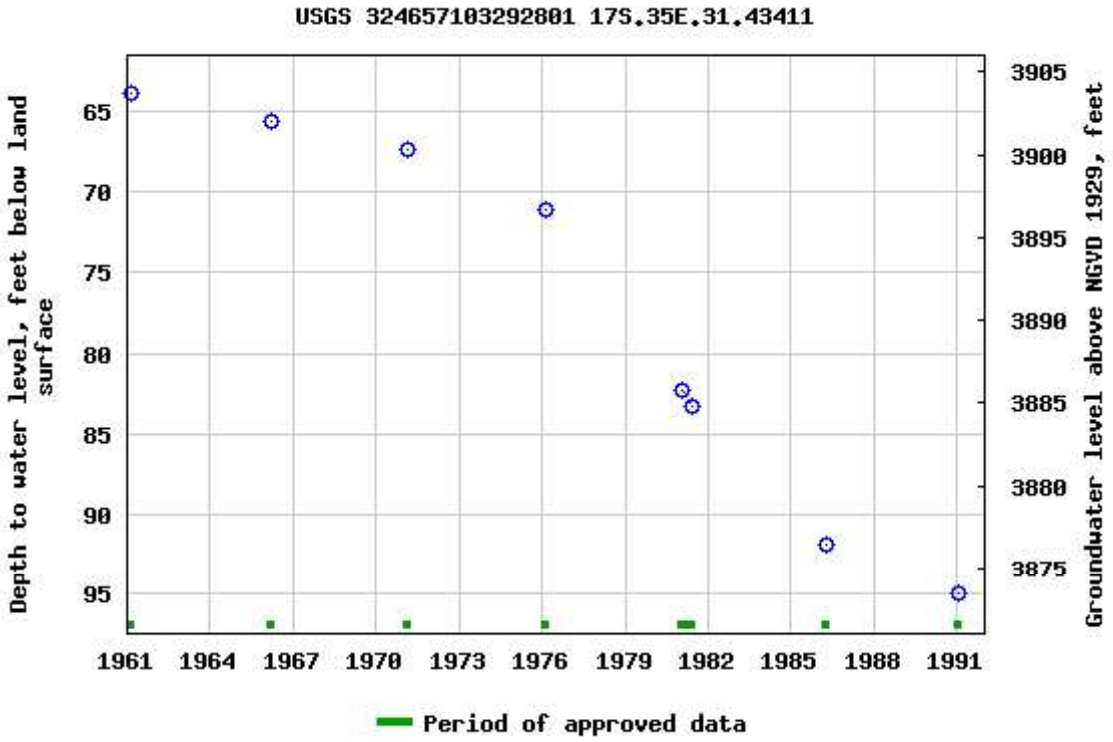
USGS 324657103292801 17S.35E.31.43411

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°47'08", Longitude 103°29'38" NAD27
Land-surface elevation 3,968.00 feet above NGVD29
The depth of the well is 146 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions or Comments
Help
Data Tips
Explanation of terms
Subscribe for system changes

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

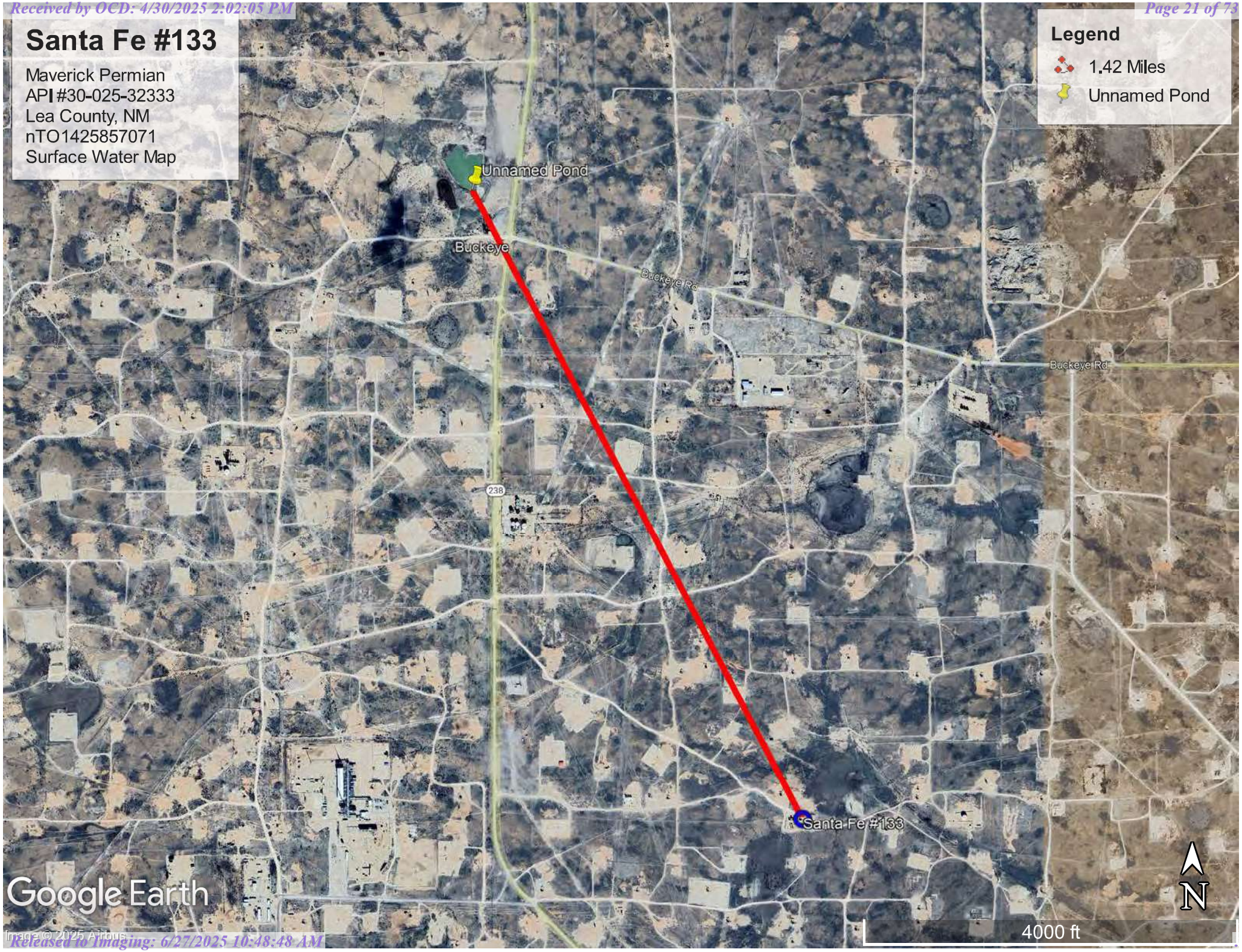
Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2025-04-21 14:29:22 EDT
0.62 0.46 nadww02

USGS science for a changing world

National Water Information System: Mapper

Santa Fe #133

Maverick Permian
API #30-025-32333
Lea County, NM
nTO1425857071
Surface Water Map



U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands Map

April 21, 2025

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

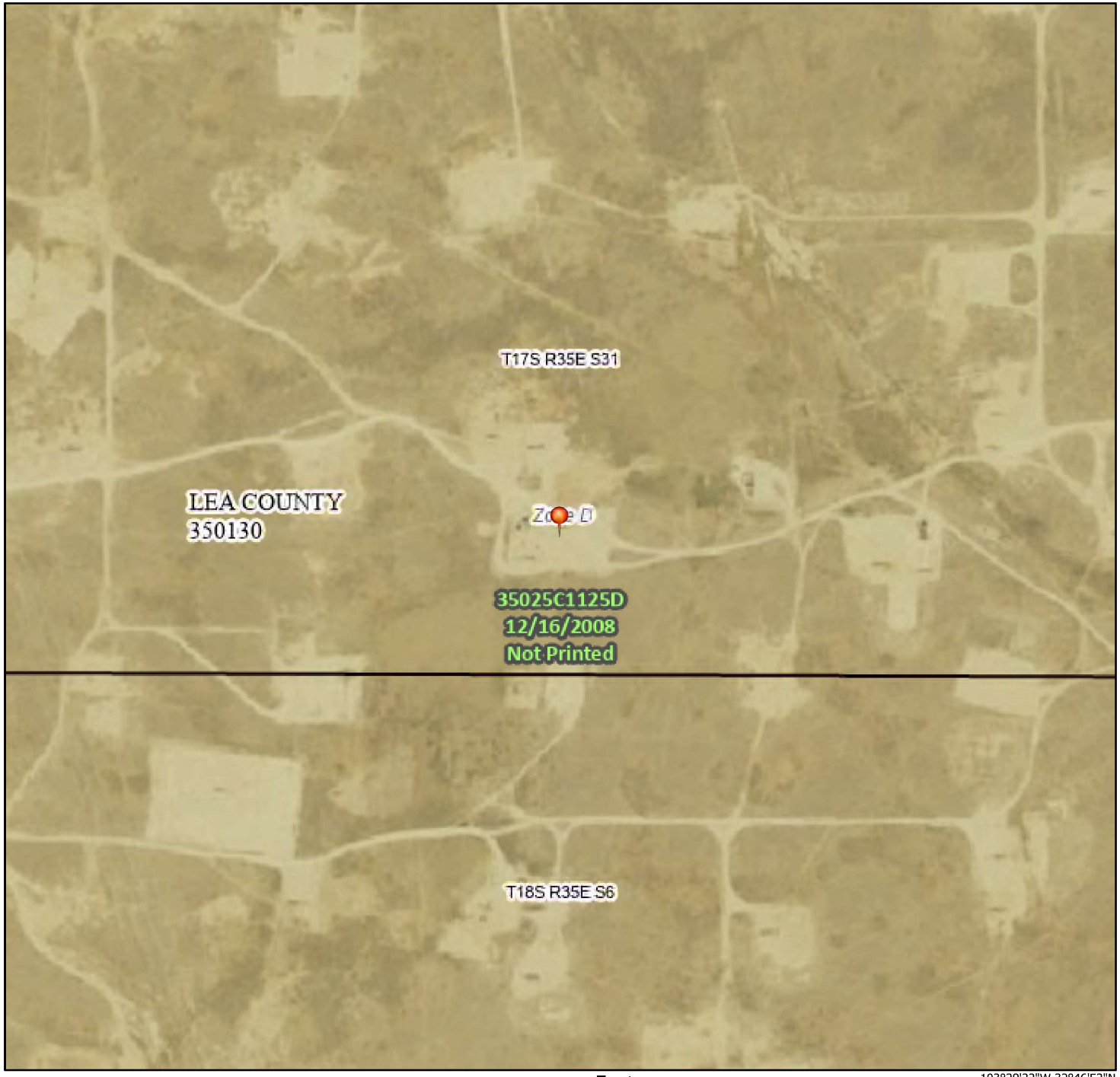
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

National Flood Hazard Layer FIRMette

FEMA

103°30'W 32°47'22"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

103°29'22"W 32°46'52"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/21/2025 at 6:32 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Sapec-Eco
5846 E 21st Place
Tulsa, OK 74114

Appendix C

Soil Surveys

Soil Map

Geologic Unit Map

Lea County, New Mexico

KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw43
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough, dry, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough, Dry

Setting

Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Concave, linear
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Minor Components

Eunice
Percent of map unit: 10 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Spraberry
Percent of map unit: 6 percent
Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Kenhill
Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 21, Sep 3, 2024

Lea County, New Mexico

KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw46
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough and similar soils: 45 percent
Lea and similar soils: 25 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough

Setting

Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Concave, linear
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Description of Lea

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam
Bk - 10 to 18 inches: loam
Bkk - 18 to 26 inches: gravelly fine sandy loam
Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 90 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Hydric soil rating: No

Minor Components

Douro

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

Kenhill

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 21, Sep 3, 2024

Soil Map—Lea County, New Mexico

Map Scale: 1:818 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 21, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

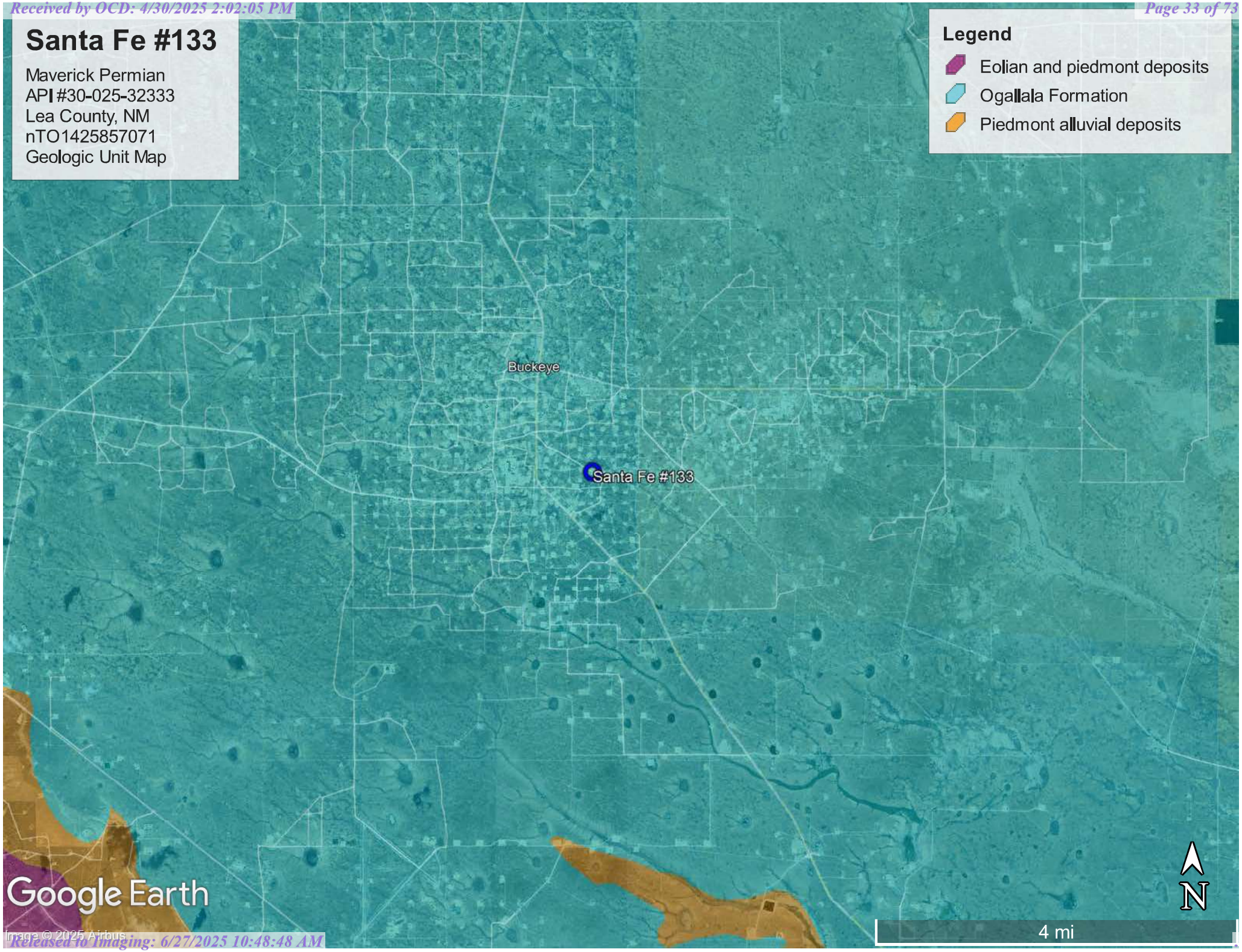
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	2.3	72.6%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0.9	27.4%
Totals for Area of Interest		**3.2**	**100.0%**

Santa Fe #133

Maverick Permian
API #30-025-32333
Lea County, NM
nTO1425857071
Geologic Unit Map



Sapec-Eco
5846 E 21st Place
Tulsa, OK 74114

Appendix D

Photographic Documentation

Photographic Documentation
Maverick Permian, LLC
Santa Fe #133 – nTO1425857071

Photographic Documentation
Maverick Permian, LLC
Santa Fe #133 – nTO1425857071

Sapec-Eco
5846 E 21st Place
Tulsa, OK 74114

Appendix D

Closure Letter Report 2020

TETRA TECH

October 19, 2020

Bradford Billings
Hydrologist
District 2 Artesia
Oil Conservation Division
Santa Fe, NM 87505

Subject: **Closure Letter Report**
ConocoPhillips
1RP-3321
Santa Fe Battery Heater Treater Release
PLSS Unit Letter O, Section 31, Township 17 South, and Range 35 East
Lea County, New Mexico

Mr. Billings:

On behalf of ConocoPhillips, Tetra Tech, Inc. (Tetra Tech) submits the following Closure Report for review. The ConocoPhillips Sante Fe Battery is located approximately 1.3 miles east-southeast of Buckeye in Lea County, New Mexico. The well listed in the C-141 is the Santa Fe #133 (API No. 30-025-32333) and is located immediately adjacent to the Santa Fe Battery. The release area (Site) is located in the Public Land Survey System (PLSS) Unit Letter O, Section 31, Township 17 South, and Range 35 East at GPS coordinates 32.78543°, -103.49473° (Figure 1).

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Attachment A), on September 11, 2014 a release occurred at the Santa Fe Battery when the test heater fell over and was damaged during heavy thunderstorms. The release consisted of 10 barrels (bbls) of oil and 10 bbls of produced water and affected a 200-foot (ft) by 200-ft by 0.25-in deep area. During initial response activities, a vacuum truck recovered 10 bbls of the released fluids. Immediate notice was given to the New Mexico Oil Conservation Division (NMOCD) on September 12, 2014. The initial C-141 was dated September 15, 2014 and submitted to NMOCD, who subsequently assigned the release the Remediation Permit (RP) number 1RP-3321.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, lakebeds, sinkholes, residences, schools, hospitals, institutions, churches, springs, public or private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. The Site is located in a low karst potential area. Two playa lakes are located adjacent to the lease pad, one northeast and the other southwest, each approximately 200 ft from the release area.

Based on data from the New Mexico Office of the State Engineer (NMOSE), there are twenty-five (25) water wells located within 800 meters (approximately ½-mile) of the release location. The average depth to groundwater is 95 feet. The site characterization data is shown in Attachment B.

REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total

petroleum hydrocarbons (TPH), and chlorides in soil. Based on the proximity of the playa lakes to the Site, the RRALs for the Site are as follows:

- Benzene: 10 milligrams per kilogram (mg/kg);
- Total BTEX (sum of benzene, toluene, ethylbenzene, and xylene): 50 mg/kg;
- TPH (GRO + DRO + ORO): 100 mg/kg;
- Chloride: 600 mg/kg.

VISUAL SITE INSPECTION SUMMARY

At the request of ConocoPhillips, Tetra Tech personnel conducted a records review and a visual Site inspection on June 4, 2020 at the release area evaluate to current conditions at the Site. The formerly impacted area was identified from the description in the C-141 and was corroborated by aerial imagery. Photographic documentation from the visual assessment is included as Attachment C. A list of observations made during the records review and visual Site inspection follow:

- Historical imagery from November 2017 revealed fencing on the lease pad that is a possible indication of remediation on the pad.
- The release location indicated on Figure 1 is interpolated from the description of the release location provided on the C-141.
- No surficial staining was observed in the pad areas during the June 2020 visual Site inspection.
- No staining was observed in the adjacent pasture areas near the Site.

CONCLUSION

Based on the apparent remediation conducted in the vicinity of the release area and lack of staining observed during the recent visual inspection, ConocoPhillips request closure for this release. The final C-141 form is enclosed in Attachment A.

Should you have any questions or comments regarding this report, please do not hesitate to contact me by telephone at 512-338-2861 or by email at christian.llull@tetratech.com.

Sincerely,

Christian M. Llull
Project Manager
Tetra Tech, Inc.

FIGURES

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\ACO\FIGURE 1 SITE LOCATION_1RP-3321.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

CONOCOPHILLIPS

1RP-3321
(32.78543674°, -103.4947358°)
LEA COUNTY, NEW MEXICO

SANTA FE BATTERY HEATER TREATER RELEASE
SITE LOCATION MAP

PROJECT NO.:	212C-MD-02152
DATE:	JUNE 24, 2020
DESIGNED BY:	AAM

Figure No.
1

ATTACHMENT A
C-141 Forms

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-141 Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **ConocoPhillips**	Contact: **Spencer Cluff**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-391-3143**
Facility Name: **Santa Fe Battery**	Facility Type: **Heater Treater**

Surface Owner: NMOCD	Mineral Owner NMOCD	API No. 30-025-32333

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	31	17S	35E	435	South	1930	East	**LEA**

Latitude 32.7854367361682 **Longitude -** 103.494735819723

NATURE OF RELEASE

Type of Release: **Spill**	Volume of Release: 20 BBLS	Volume Recovered: 10 BBLS
Source of Release: Heater Treater	Date and Hour of Occurrence **09/11/14 4:00 am**	Date and Hour of Discovery **09/12/2014 7:3- am**
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? **Tomáš Oberding**	
By Whom? **Spencer Cluff**	Date and Hour: **09/12/2014 7:10 am**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On September 12th, 2014, in the early morning hours, at the Santa Fe 133 Battery, a release of oil and produced water occurred. The release originated from the test heater that fell over and was damaged during heavy thunderstorms. Operations was contacted by an offset operator and informed that the heater had fallen. The lease was shut in at the time of the incident. The affected area was 200 ft. X 200 ft. X 0.25 inches deep and resulted in 10 bbls oil and 10 bbls produced water, with 10 bbls recovered. The affected area will be remediated according to NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken.*

The lease was shut in at the time of the incident.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: *Spencer A. Cluff*	OIL CONSERVATION DIVISION Approved by Environmental Specialist: [signature]	
Printed Name: Spencer Cluff		
Title: HSE Lead	Approval Date: 9-15-14	Expiration Date: 11-15-14
E-mail Address: **spencer.a.cluff@conocophillips.com**	Conditions of Approval: Site Supply require Delineate & remediate area as per NMOCD guides. Submit final C-141 by 11-15-14	Attached ☐ 1RP-3321
Date: 09/15/2014 Phone: 575-391-3143		

* Attach Additional Sheets If Necessary

08-19 2,7817
nTO 1425 85 7071
pTO 1425 85 7207

SEP 16 2014

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-3321
Facility ID	
Application ID	

Closure

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

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

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

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

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

☐ Description of remediation activities

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

Printed Name: Charles Beauvais Title: Environmental Coordinator

Signature: Charles R. Beauvais II Date: 10/19/2020

email: charles.r.beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

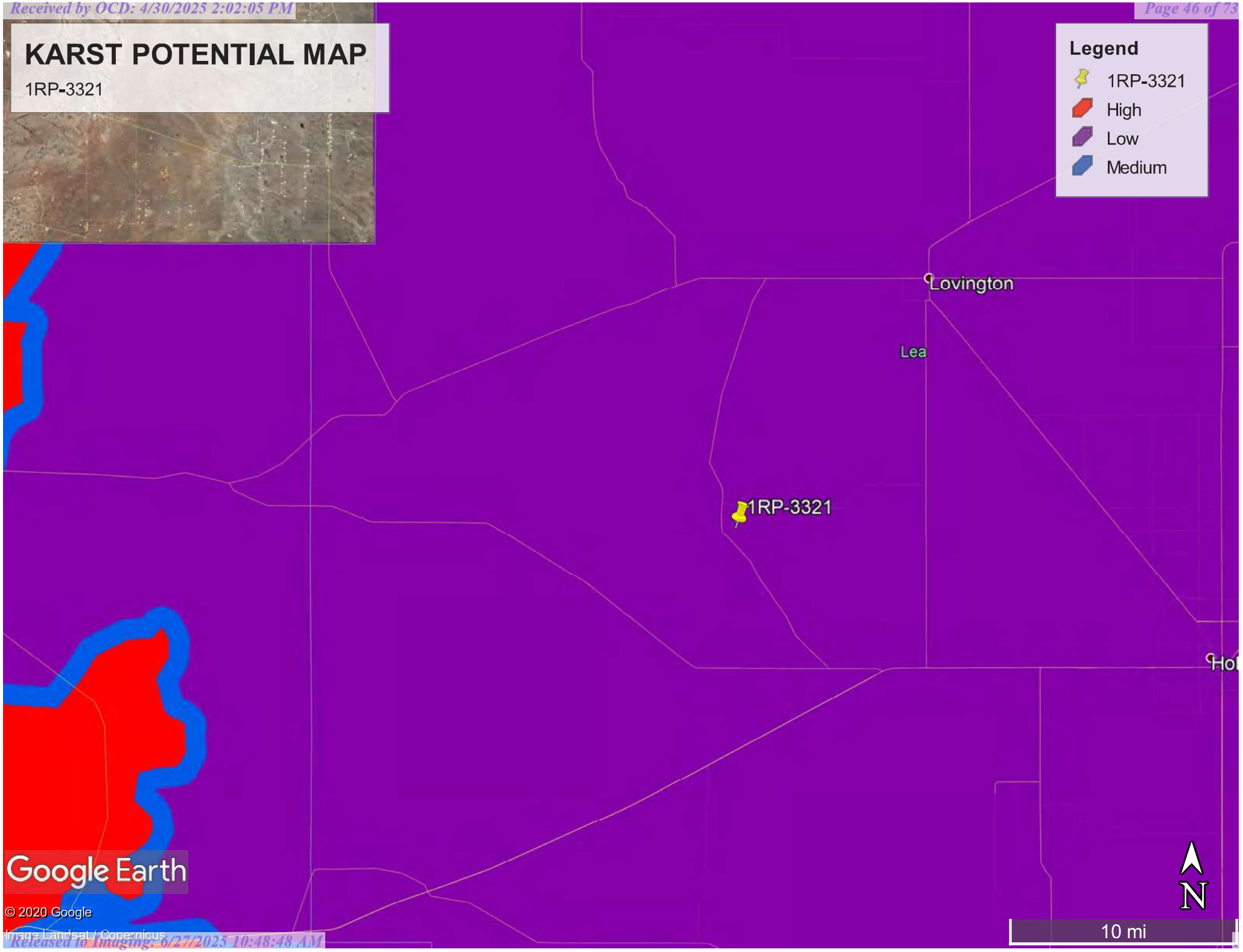
Received by: Jocelyn Harimon Date: 04/18/2023

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.

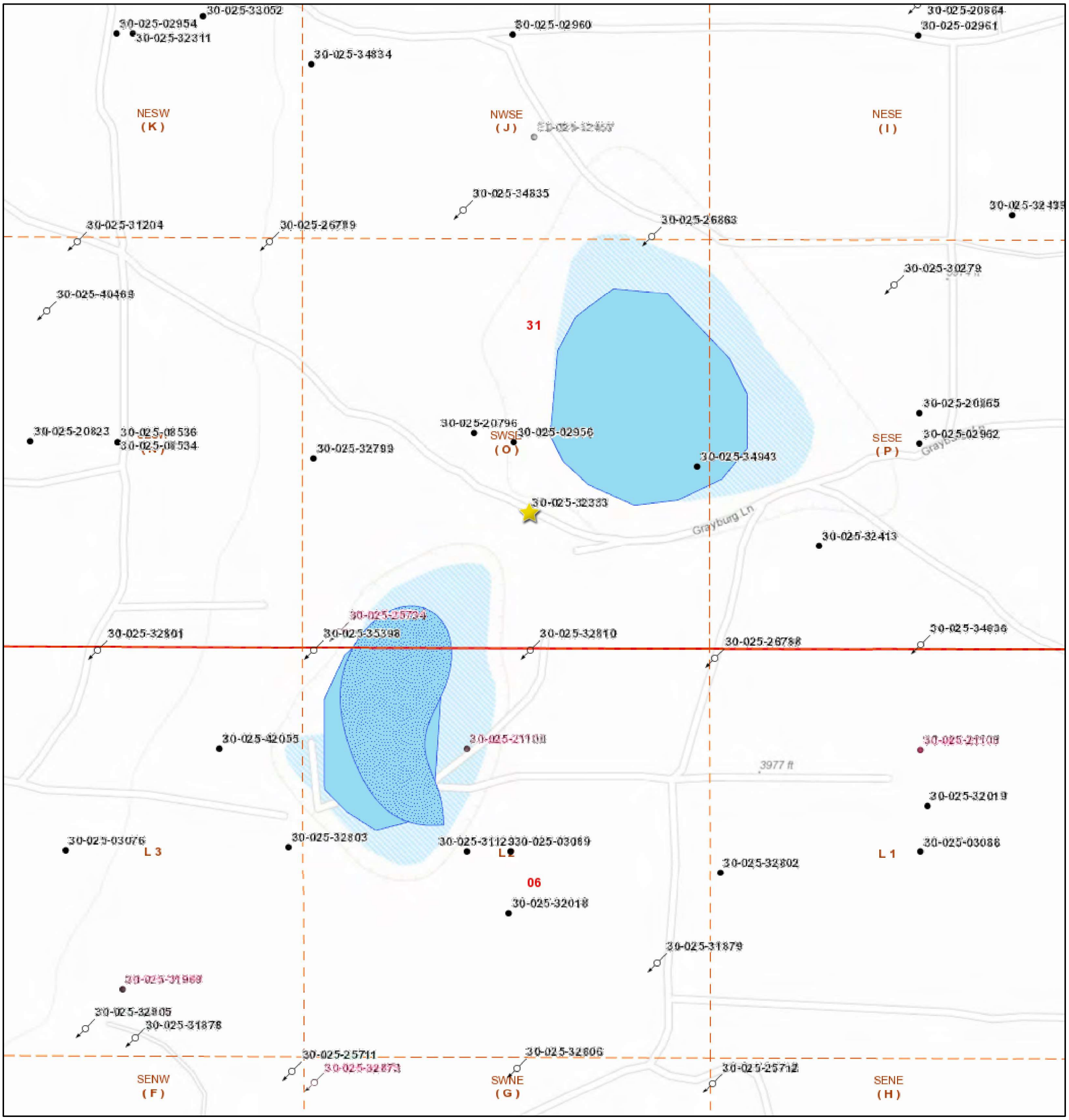
Closure Approved by: closure not approved Date: 04/18/2023

Printed Name: Jocelyn Harimon Title: Environmental Specialist

ATTACHMENT B
Site Characterization Data


KARST POTENTIAL MAP
1RP-3321
Legend
1RP-3321
High
Low
Medium
Lovington
Lea
1RP-3321
Google Earth
© 2020 Google
Image Landsat / Copernicus
N
10 mi

1RP-3321



7/27/2020, 4:26:18 PM

1:4,514

0 0.04 0.09 0.17 mi

0 0.05 0.1 0.2 km

- Override 1

Wells - Large Scale

- undefined
- Miscellaneous
- CO2, Active
- CO2, Cancelled
- CO2, New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas, Active
- Gas, Cancelled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection, Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- OCD District Offices
- PLSS First Division
- PLSS Second Division
- OSE Streams
- OSE Water-bodies

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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 13392 POD13		L	LE	4	1	2	06	18S	35E	641128	3628091	443			
L 13392 POD12		L	LE	4	1	2	06	18S	35E	641148	3628085	456			
L 13392 POD1		L	LE	4	1	2	06	18S	35E	641125	3628069	462			
L 13392 POD19		L	LE	3	2	2	06	18S	35E	641155	3628080	463	138		
L 13392 POD2		L	LE	4	1	2	06	18S	35E	641151	3628069	472			
L 13392 POD3		L	LE	4	1	2	06	18S	35E	641126	3628050	480			
L 13392 POD4		L	LE	4	1	2	06	18S	35E	641152	3628054	486			
L 13392 POD15		L	LE	4	1	2	06	18S	35E	641119	3628041	486	137		
L 13392 POD5		L	LE	4	1	2	06	18S	35E	641123	3628029	499			
L 13392 POD6		L	LE	4	1	2	06	18S	35E	641144	3628032	503			
L 13041 POD1		L	LE		2	2	06	18S	35E	641152	3628026	512	130		
L 13041 POD2		L	LE		2	2	06	18S	35E	641152	3628026	512	140		
L 13041 POD3		L	LE		2	2	06	18S	35E	641152	3628026	512	140		
L 13041 POD4		L	LE		2	2	06	18S	35E	641152	3628026	512	140		
L 13392 POD20		L	LE	4	1	2	06	18S	35E	641081	3628000	516	138		
L 13392 POD14		L	LE	4	1	2	06	18S	35E	641118	3628007	519	133		
L 13392 POD7		L	LE	4	1	2	06	18S	35E	641149	3628017	519			
L 13392 POD18		L	LE	4	1	2	06	18S	35E	641143	3628014	520	138		
L 13392 POD8		L	LE	4	1	2	06	18S	35E	641131	3628001	528			
L 13392 POD9		L	LE	4	1	2	06	18S	35E	641147	3628002	533			
L 13392 POD17		L	LE	4	1	2	06	18S	35E	641149	3627992	543	138		
L 13392 POD10		L	LE	4	1	2	06	18S	35E	641124	3627980	546			
L 13392 POD11		L	LE	4	1	2	06	18S	35E	641147	3627980	553			
L 13392 POD16		L	LE	3	2	2	06	18S	35E	641171	3627989	554	138		
L 07119 S		L	LE	1	2	1	06	18S	35E	640445	3628259*	572	233	95	138

Average Depth to Water: **95 feet**
Minimum Depth: **95 feet**
Maximum Depth: **95 feet**

Record Count: 25

UTMNAD83 Radius Search (in meters):

Easting (X): 640963 **Northing (Y):** 3628502.698 **Radius:** 800

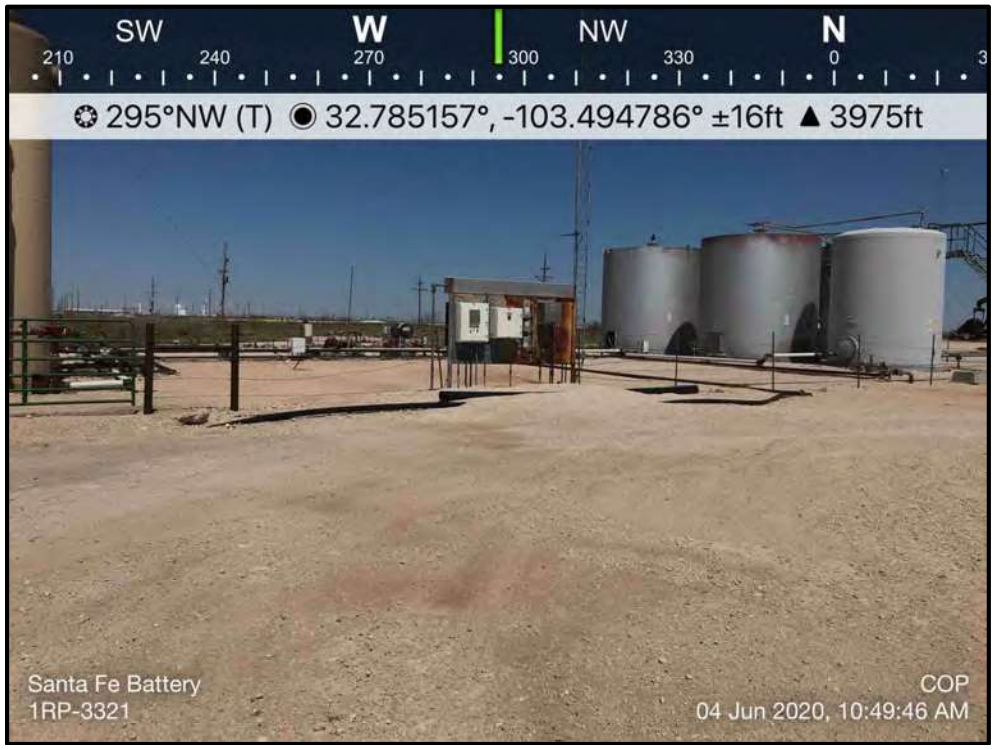
***UTM location was derived from PLSS - see Help**

9/15/20 12:23 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

ATTACHMENT C
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northwest of well pad. Heater treater and battery tanks in background.	1
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020

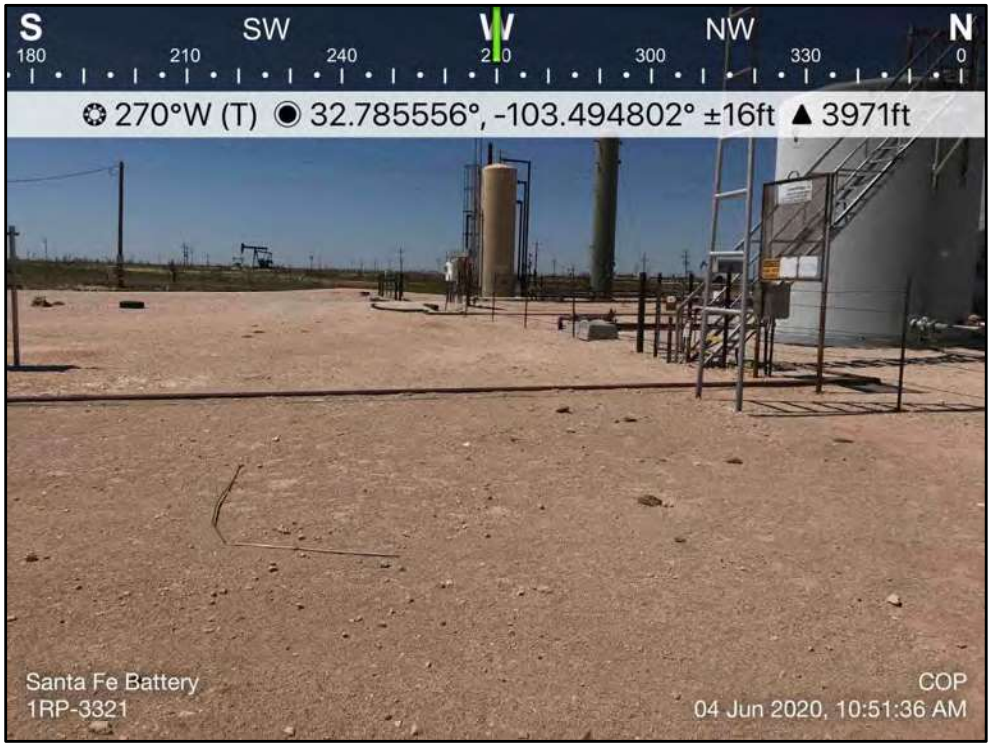


TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northwest of control panels and battery tanks.	2
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020

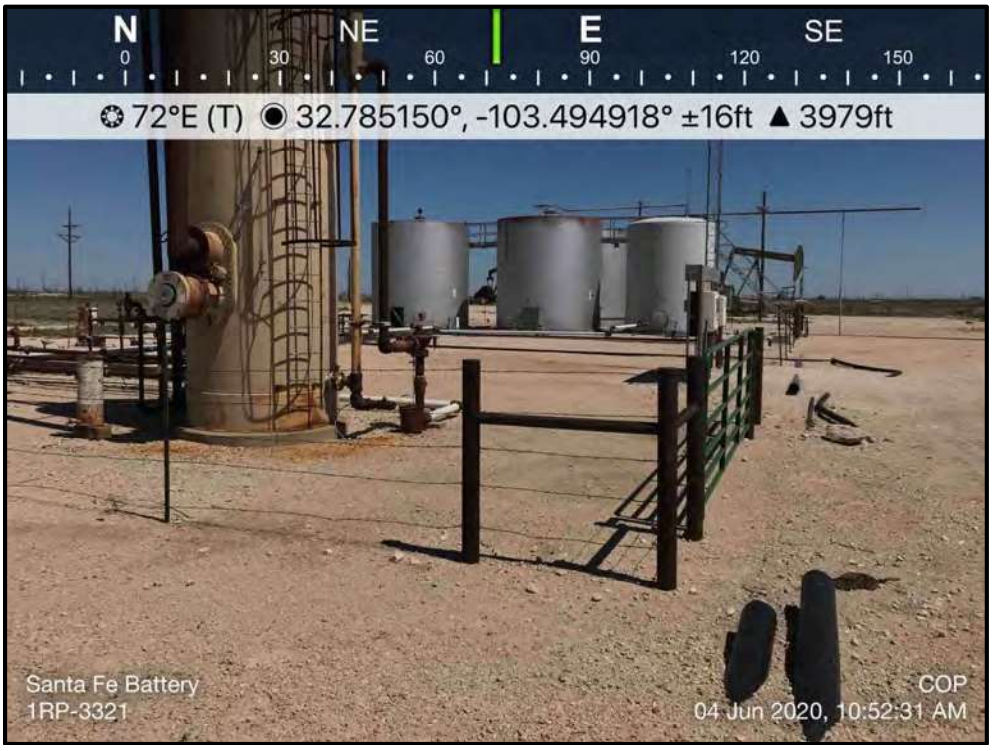
TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing east of well pad. Lease road in background.	3
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northwest of well pad and equipment.	4
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northwest of pumpjack and battery tanks.	5
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing west of heater treater and battery tanks.	6
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing east of heater treater and battery tanks.	7
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing southeast of well head.	8
	SITE NAME	Santa Fe Battery Heater Treater Release	6/4/2020

nTO1425857071

Initial Site Assessment Locaitons

CARDINAL Laboratories

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

June 26, 2024

CHUCK TERHUNE

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: SANTA FE #133

Enclosed are the results of analyses for samples received by the laboratory on 06/20/24 8:33.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 1 (0-0.5') (H243625-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2024	ND	191	95.7	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/22/2024	ND	217	108	200	0.719	
EXT DRO >C28-C36	<10.0	10.0	06/22/2024	ND					

Surrogate: 1-Chlorooctane *83.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 1 (2-2.5') (H243625-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2024	ND	191	95.7	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/22/2024	ND	217	108	200	0.719	
EXT DRO >C28-C36	<10.0	10.0	06/22/2024	ND					

Surrogate: 1-Chlorooctane *94.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 2 (0-0.5') (H243625-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2024	ND	191	95.7	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/22/2024	ND	217	108	200	0.719	
EXT DRO >C28-C36	<10.0	10.0	06/22/2024	ND					

Surrogate: 1-Chlorooctane *86.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.9 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 2 (2-2.5') (H243625-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2024	ND	191	95.7	200	1.11	
DRO >C10-C28*	<10.0	10.0	06/22/2024	ND	217	108	200	0.719	
EXT DRO >C28-C36	<10.0	10.0	06/22/2024	ND					

Surrogate: 1-Chlorooctane *92.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 3 (0-0.5') (H243625-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2024	ND	198	98.9	200	0.900	
DRO >C10-C28*	<10.0	10.0	06/21/2024	ND	187	93.3	200	0.578	
EXT DRO >C28-C36	<10.0	10.0	06/21/2024	ND					

Surrogate: 1-Chlorooctane *97.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 3 (2-2.5') (H243625-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2024	ND	198	98.9	200	0.900	
DRO >C10-C28*	<10.0	10.0	06/21/2024	ND	187	93.3	200	0.578	
EXT DRO >C28-C36	<10.0	10.0	06/21/2024	ND					

Surrogate: 1-Chlorooctane *85.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *70.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 4 (0-0.5') (H243625-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2024	ND	198	98.9	200	0.900	
DRO >C10-C28*	<10.0	10.0	06/21/2024	ND	187	93.3	200	0.578	
EXT DRO >C28-C36	<10.0	10.0	06/21/2024	ND					

Surrogate: 1-Chlorooctane *87.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *75.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TETRA TECH
CHUCK TERHUNE
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	SANTA FE #133	Sampling Condition:	Cool & Intact
Project Number:	nTO1425887071	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY		

Sample ID: BH 4 (2-2.5') (H243625-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2024	ND	2.10	105	2.00	0.266	
Toluene*	<0.050	0.050	06/22/2024	ND	2.13	106	2.00	0.962	
Ethylbenzene*	<0.050	0.050	06/22/2024	ND	2.19	109	2.00	0.728	
Total Xylenes*	<0.150	0.150	06/22/2024	ND	6.68	111	6.00	0.924	
Total BTEX	<0.300	0.300	06/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/24/2024	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/21/2024	ND	198	98.9	200	0.900	
DRO >C10-C28*	<10.0	10.0	06/21/2024	ND	187	93.3	200	0.578	
EXT DRO >C28-C36	<10.0	10.0	06/21/2024	ND					

Surrogate: 1-Chlorooctane *84.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *73.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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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

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Tetra Tech	**BILL TO** P.O. #:	
Project Manager:	Chuck Terhune	Company:	Tetra Tech
Address:		Attn:	
City:	Midland	State: TX Zip:	Address:
Phone #:		Fax #:	City:
Project #:	NTO14258B7071	Project Owner:	State: Zip:
Project Name:	Santa Fe #133		Phone #:
Project Location:	Lea County		Fax #:
Sampler Name:	Cristo Sanchez		

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	TPH (DRO / GRO / ORO)	Chloride 4500
H243625																	
1	BH1 (0-0.5')					X					X		6.19.24		X	X	X
2	BH1 (2-2.5')																
3	BH2 (0-0.5')																
4	BH2 (2-2.5')																
5	BH3 (0-0.5')																
6	BH3 (2-2.5')																
7	BH4 (0-0.5')																
8	BH4 (2-2.5')																

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

Relinquished By:	Date: 6.20.24 Time: 0833	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Cristo Sanchez		Rodriguez	All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:

Delivered By: (Circle One)	Observed Temp. °C: 3.2	Sample Condition Cool: Yes / Intact: Yes	CHECKED BY: (Initials)	Turnaround Time: Standard ☒ Rush ☐	Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C			Thermometer ID #140 Correction Factor 0°C	Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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

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

QUESTIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 457240
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nTO1425857071**
Incident Name	**NTO1425857071 SANTA FE #133 @ 30-025-32333**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-025-32333] SANTA FE #133**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	SANTA FE #133
Date Release Discovered	09/11/2014
Surface Owner	State

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Human Error | Separator | Produced Water | Released: 20 BBL | Recovered: 10 BBL | Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 457240
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Chuck Terhune Title: Program Manager Email: chuck.terhune@tetratech.com Date: 07/12/2024

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 457240
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	Estimate or Other
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 100 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 100 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	96
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	08/01/2025
On what date will (or did) the final sampling or liner inspection occur	08/15/2025
On what date will (or was) the remediation complete(d)	08/30/2025
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	40000
What is the estimated volume (in cubic yards) that will be remediated	5926
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Number: 457240
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Chuck Terhune Title: Program Manager Email: chuck.terhune@tetratech.com Date: 04/30/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Number: 457240
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator:	OGRID:
Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	331199
	Action Number: 457240
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**355210**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**06/19/2024**
What was the (estimated) number of samples that were to be gathered	**4**
What was the sampling surface area in square feet	**800**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 457240
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	The Sampling and Remediation Work Plan is approved with one stipulation: delineation samples cannot be used for confirmation purposes due to differing collection methods. For clarity, confirmation requires a 5-point composite sample from the sidewalls and floor, whereas delineation is a single-point grab sample.	6/27/2025