
June 11, 2026

EMNRD – Oil Conservation Division
506 W. Texas
Artesia, New Mexico 88210

SUBJECT: Liner Inspection and Closure Report for Cotton Draw Unit #089– May 22, 2026 Site Visit

Incident IDs: nAPP2603445332
API Number (Name): 30-015-31381 (COTTON DRAW UNIT #089)
Facility Location: Unit O of Section 3, Township 25 South, Range 31 East, New Mexico
Facility GPS Coordinates: 32.153093, -103.763266
Eddy County, New Mexico

Introduction

KLJ Engineering (KLJ) has prepared this report on behalf of Devon Energy Production Company, LP (Devon) to detail the recent liner inspection conducted at Cotton Draw Unit #089 (Site) on May 22, 2026. The inspection followed the release of produced water that occurred on February 2, 2026 (Incident ID nAPP2603445332).

Site Information and Background

The Site is located approximately 20.88 miles southwest of Loving, New Mexico, on federal property. The Site lies within Unit O, Section 3, Township 25 South, Range 31 East, in Eddy County. KLJ conducted a liner inspection and associated site characterization in accordance with 19.15.29.11 and 19.15.29.12 of the New Mexico Administrative Code (NMAC) to assess the integrity of the containment system and evaluate any potential environmental impacts resulting from a release.

Release Descriptions and Immediate Response

On February 2, 2026, a Devon lease operator discovered that a fluid pump had froze, resulting in the release of approximately 28 barrels (bbls) of produced water. On February 3, 2026, Devon Energy submitted the initial Notice of Release (NOR) to the New Mexico Energy, Minerals, and Natural Resources Department – Oil Conservation Division (NMOCD) via the Operator’s Electronic Permitting and Payment Portal.

The February 2, 2026, release exceeded 25 bbls and was classified as a *major release* under 19.15.29.7(A)(1) NMAC, requiring enhanced notification procedures. In compliance with 19.15.29.8(A)(1) NMAC, Devon provided verbal and email notification to the NMOCD Environmental Bureau Chief and the appropriate Division District Office within 24 hours of discovery. A Form C-141 for the incident was submitted on February 5, 2026, in accordance with 19.15.29.9(A)(1) and 19.15.29.10(A)(1)(2) NMAC. The Form C-141 confirmed prior notifications and provided updated release details, fulfilling major release reporting requirements.

Site Characterization Summary

The Site lies within Qep – Eolian and piedmont deposits (Holocene to middle Pleistocene), including interlayered eolian sands and piedmont-slope deposits. Terrain for the Site and immediate surrounding area includes plains, uplands, dunes, interdunal areas, and fan piedmonts at elevations ranging from 2,800

to 5,000 feet above mean sea level (amsl). Parent material consists of mixed alluvium and/or eolian sands derived from sedimentary rock, with 8 to 13 inches of average annual precipitation. Soil within the Site tends to be well-drained, with low runoff potential and moderately high to high water-holding capacity.

The USDA – Web Soil Survey (WSS) identifies the predominant soil type at the Site as the Berino complex that is moderately deep to very deep, with surface textures ranging from loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam. Subsurface consists of loamy fine sand, coarse sandy loam, fine sandy loam or loam that averages less than 18 percent clay and less than 15 percent carbonates. Substratum includes a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and less than 40 percent calcium carbonate.

Vegetation reflects black grama, dropseeds, and bluestems, with scattered occurrences of shinney oak and sage. Ground cover consists of perennial and annual forbs, grasses, and bare ground, with composition varying based on precipitation. Declines in black grama can result in a transition toward a grass/shrub or shrub-dominated state, often featuring honey mesquite, snakeweed, sand sage, and shinnery oak. These changes are influenced by factors such as heavy grazing, drought, erosion, bare patches, and historical fire suppression, which promote shrub encroachment and reduce grass cover, leading to increased erosion potential and a competitive advantage for shrubs over grasses.

No surface water features were identified within 300 feet of the Site. The nearest significant watercourse is 3.95 miles southwest; the closest playa and wetland is 0.75 miles southwest. These distances comply with the requirements of 19.15.29.12(C)(4) NMAC.

Per the New Mexico Office of the State Engineer (NMOSE) Points of Diversion (POD) Map, the nearest POD used to reference Depth to Groundwater (DTGW) is located 0.13 miles southeast on an adjacent well pad (C-04632-POD1). The POD is identified as a temporary borehole/monitoring well used to determine DTGW. The well record indicates that the temporary borehole was drilled to a depth of 55 ft below ground surface (bgs), and no groundwater was encountered. The nearest water source, a domestic well used for stock watering purposes, C-02250, is located 2.97 miles southwest of the Site.

Karst potential for the Site is identified as low, with the nearest area of medium karst potential located 5.31 miles to the southwest. The Site is in a FEMA flood hazard area identified as Zone X (undetermined hazard); the nearest identified FEMA flood hazard area, classified as Zone A, is 1.31 miles to the southwest.

Additional information detailing the results of the Site characterization findings can be found in **Appendix B**.

Closure Criteria

Table 1 summarizes key Site and incident information relevant to closure evaluation, as required under 19.15.29.12 NMAC. This includes details such as release source, location, containment status, and site-specific features that may influence closure requirements. While contamination thresholds and applicable concentration limits are not listed in this table, the information provided supports regulatory assessment of whether the release meets criteria for closure. In accordance with NMAC 19.15.29.11(A)(5)(b), if the release occurred within lined, impermeable secondary containment with no evidence of escape, it may qualify for reduced remediation requirements or a No Further Action (NFA) determination.

Table 1: Release Information and Closure Criteria Limits			
Depth to Ground Water Determination: 51-100 feet bgs			
Site Name	Cotton Draw Unit #089	Company	Devon Energy Production Company, LP
Facility ID	30-015-31381	PLSS GPS	O-3-25S-31E 32.153093, -103.763266
Lease ID	NMNM0046525	Land Status	BLM (Federal)
Incident ID(s)	nAPP2603445332	Date Of Release(s)	2/2/2026
Source of Release	Water pump froze	Volume Released/Recovered	28 bbls/ 28 bbls pw
Specific Features	DTGW POD within 0.5-mile radius; Low karst potential; No surface water within proximity; FEMA Zone X		

Liner Inspection Activities

Prior to the inspection, an extension request was submitted to NMOCD on May 1, 2026, requesting an additional 45 days to pressure washer the containment, inspect the liner, and submit the final closure report. NMOCD approved the extension request on May 4, 2026. A copy of this request is included in **Appendix C**.

For incident nAPP2603445332, a notification of inspection was submitted to Devon via email on May 20, 2026, with official notification submitted through the Operator's Electronic Permitting and Payment Portal on the same date, in accordance with 19.15.29.11(A)(5)(a)(iii) NMAC. A copy of the notification is included with **Appendix C**.

During the visit on May 22, 2026, KLJ personnel conducted a visual inspection of the secondary containment to verify liner integrity. Observations included checks for perforations, tears, cuts, or weathering that could compromise containment performance. The liner was confirmed to be intact, with no observed integrity issues or conditions requiring repair or replacement. Photographic documentation is included in the Liner Inspection Field Notes & Photolog Report (**Appendix A**).

Conclusion


Based on the findings of the liner inspection, KLJ concludes that liner integrity is adequate to contain fluids and there are no further actions required in relation to incident nAPP2603445332.

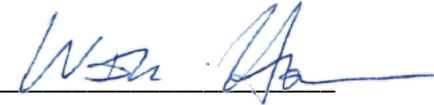
Based on the site assessment and activities conducted, Devon respectfully requests closure of incident nAPP2603445332 with a No Further Action (NFA) determination.

Submitted and prepared by:
KLJ Engineering

Written By
Name: Monica Peppin
Title: Environmental Specialist II

Reviewed By
Name: Will Harmon, P.G.
Title: Environmental Project Manager

Signature: 

Signature: 

Included Appendices

- Appendix A – LINER INSPECTION FIELD NOTES & PHOTOLOG REPORT
- Appendix B – CLOSURE CRITERIA RESEARCH
- Appendix C – CORRESPONDENCE

APPENDIX A

LINER INSPECTION FIELD NOTES & PHOTOLOG REPORT

Environmental Liner Inspection Field Notes & Photolog Report



Site & Incident Information

Client:	Devon Energy	Date:	May 22, 2026
Site:	Cotton Draw Unit #089	Arrival Time:	12:45 PM
Incident ID:	nAPP2603445332	County:	Eddy
GPS:	32.153093, -103.763266	Lease ID:	NMNM0046525
Land Status:	BLM	API #:	30-015-31381

Observations and Field Notes

KLJ

PROJECT Cotton Draw Unit #089
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____

Field Notes nAPP2603445332 30-015-31381

- * Travel to site, Arrive at 12:45 PM, complete JHA
- * Check surroundings for hazards, check in w/ supervisor
- * Begin liner inspection by walking around the containment and visually inspecting the walls, base of liner and any areas that look like there is potential for weathering, stress cracking, or seam separation.
- * Observations of liner show there are no signs of UV damage, degradation, or pinch points near congested areas of flowlines and equipment.
- * No rips, tears, cuts, abrasions, or potential points of concern for a potential breach to the native ground.
- * Liner passes inspection and liner integrity is confirmed.
- * Photos taken at each cardinal direction as well as in between, along with areas where liner would have a potentially higher risk of degradation, between tanks and under piping.
- * No further action for containment.

Date: 5/22/26





Photolog



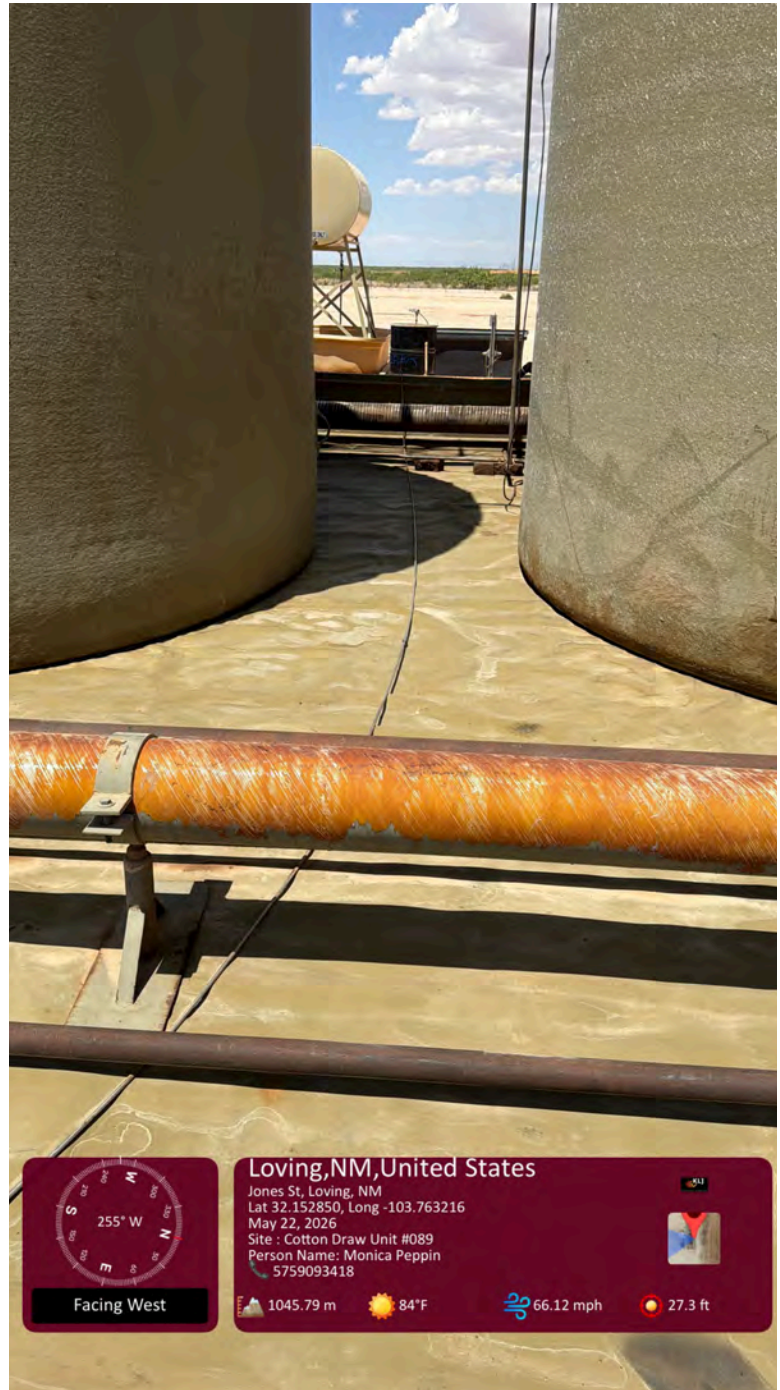


Photolog



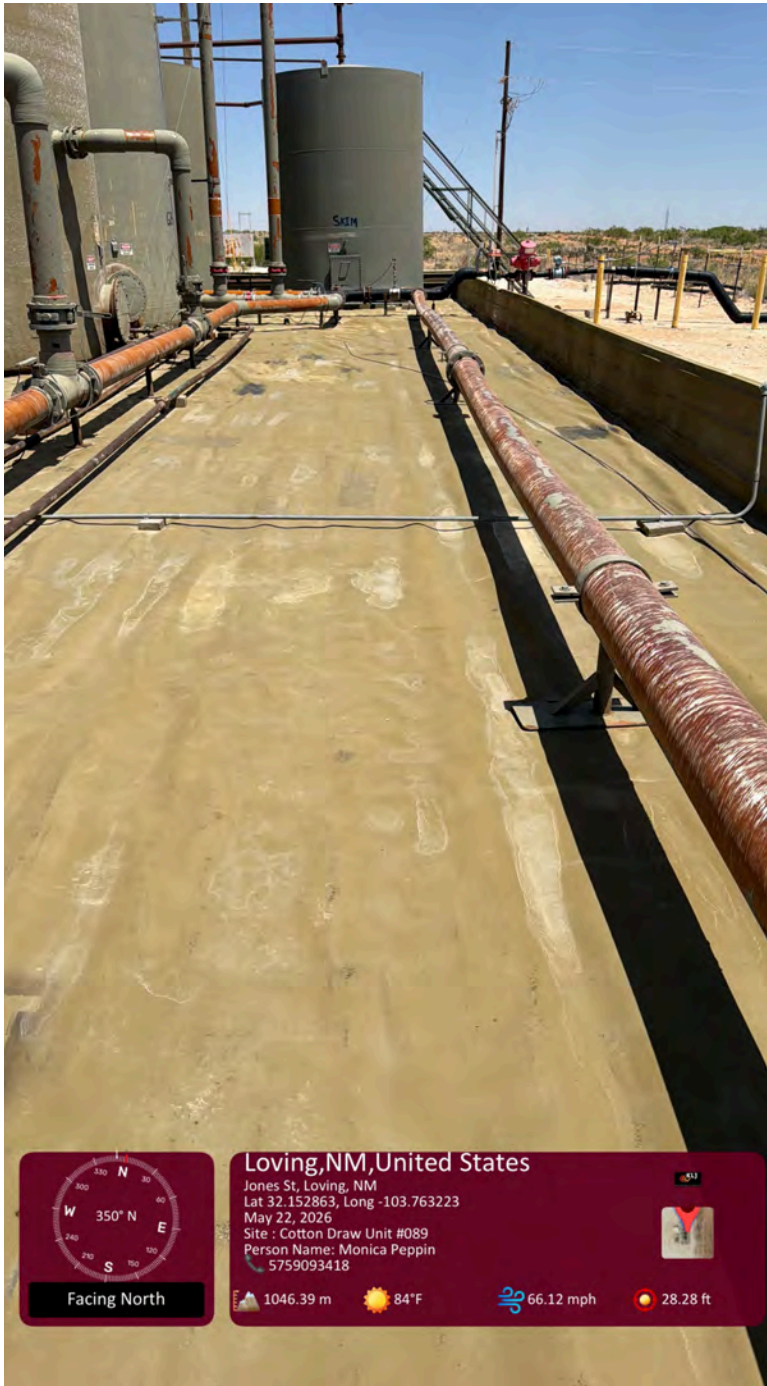


Photolog





Photolog





Photolog





Photolog



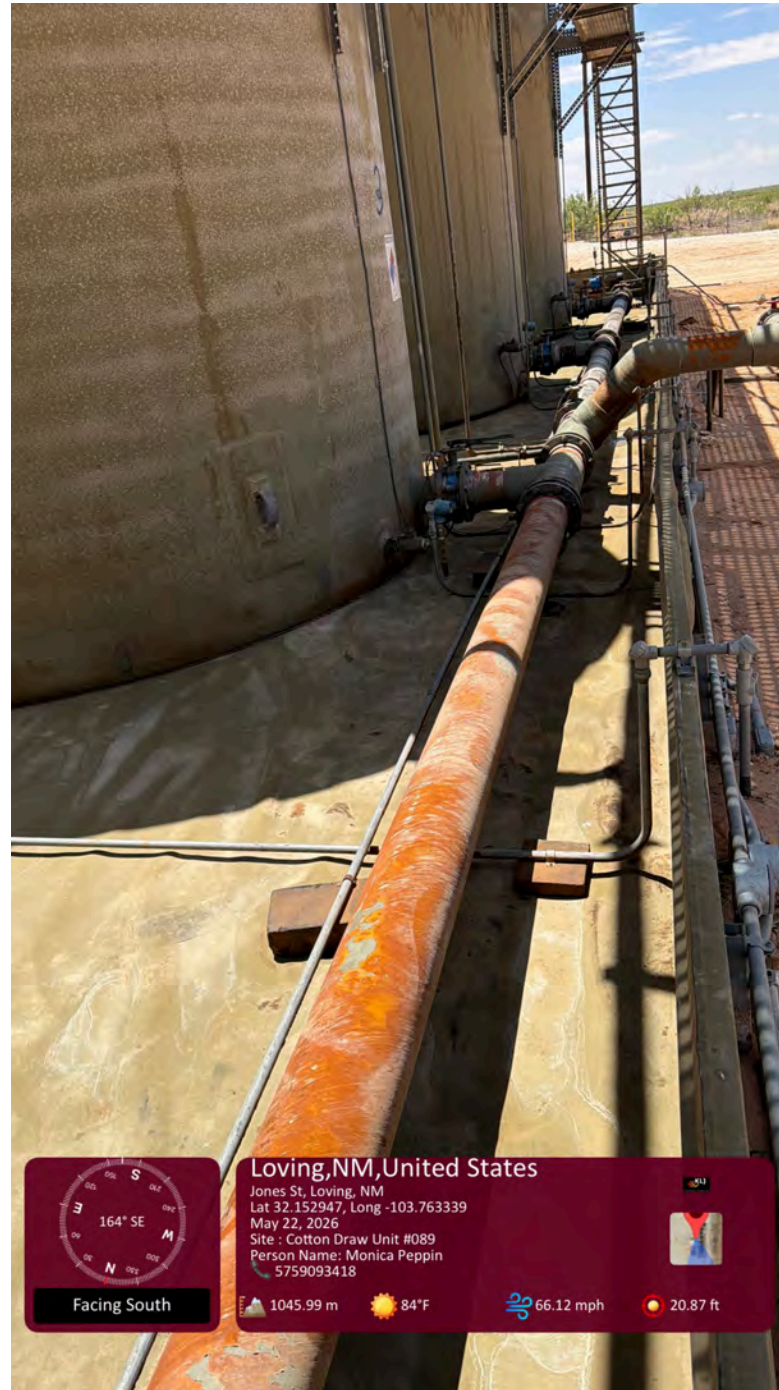


Photolog



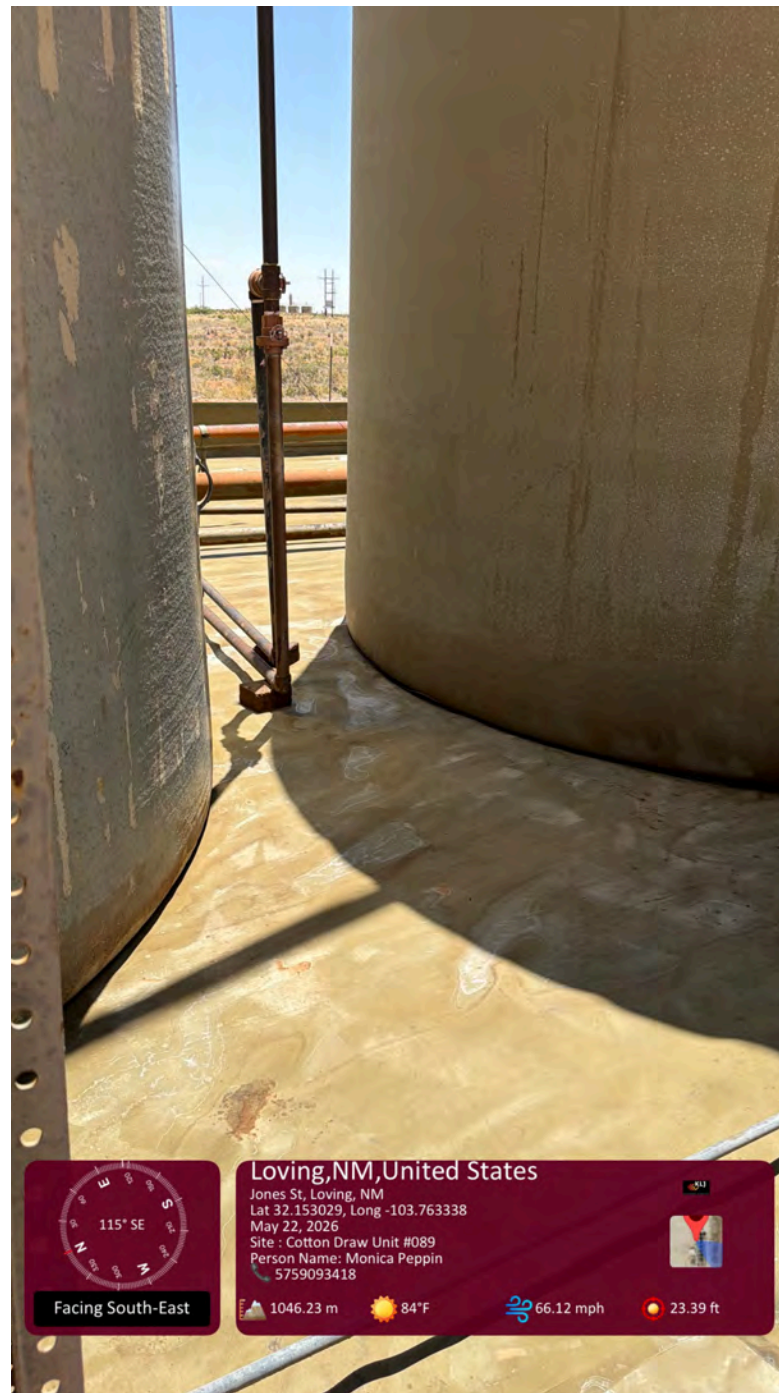


Photolog





Photolog



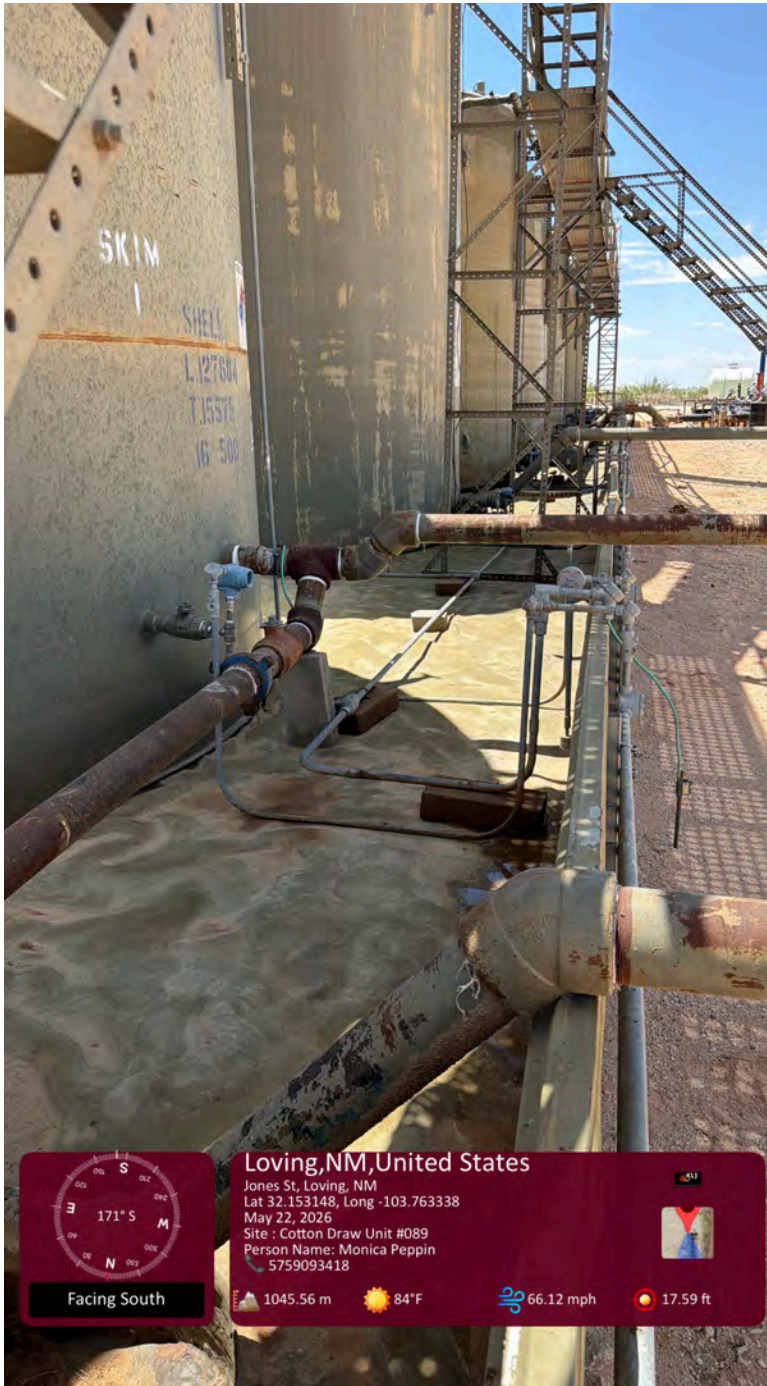


Photolog





Photolog





Additional Notes & Recommendations

- Inspection complete. Liner meets standards and is in compliance.
- No additional recommendations.
- Liner integrity confirmed.

Acknowledgement & Signature

Technician: Monica Peppin

Date: May 22, 2026

Signature: 

Departure Time: 1:39 PM

APPENDIX B

CLOSURE CRITERIA RESEARCH



Cotton Draw Unit #089

Incident ID: nAPP2603445332

Coordinates: 32.153093, -103.76366

Approx Containment Area: 5,374 sq ft

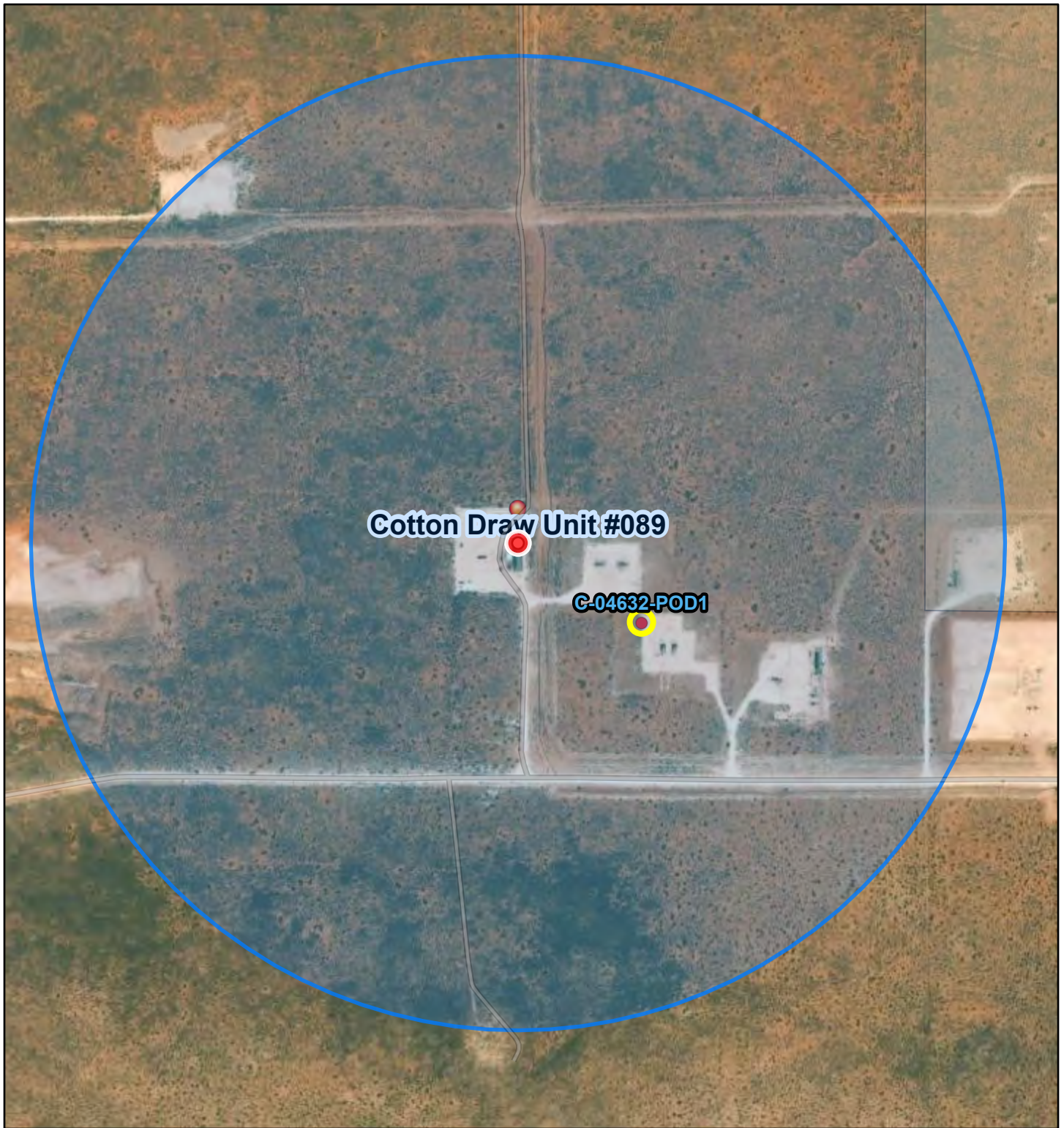
Legend

-  Containment Area
-  Cotton Draw Unit #089

Cotton Draw Unit #089



Cotton Draw Unit #089



6/4/2026, 1:40:03 PM

GIS WATERS PODs

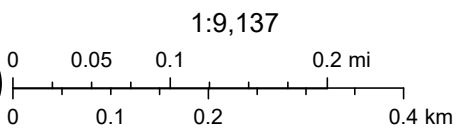
- Plugged
- New Mexico State Trust Lands
- Subsurface Estate
- World Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

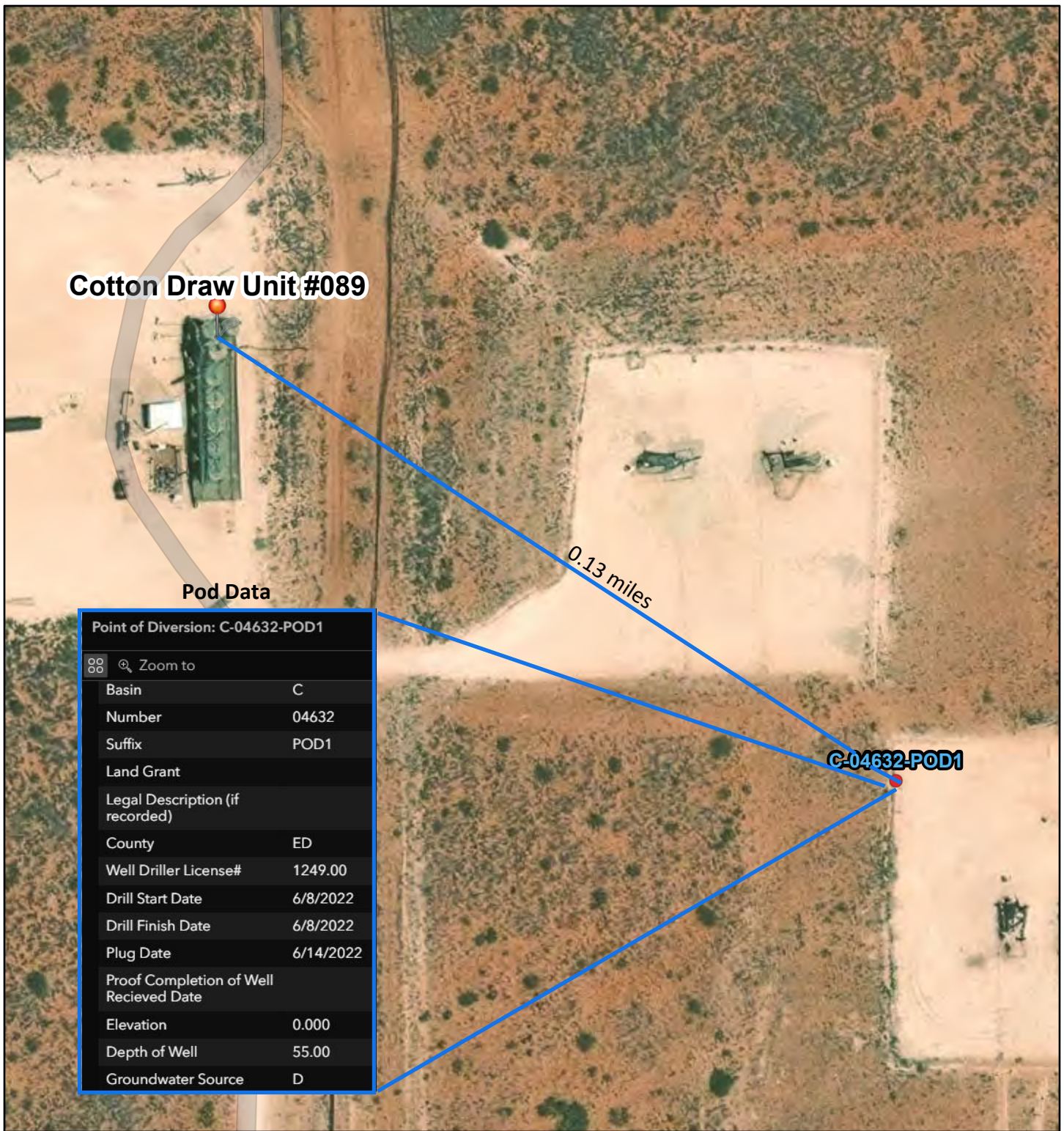
Citations

2.4m Resolution Metadata



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

Cotton Draw Unit #089 DTGW Proximity Map



6/4/2026, 1:43:52 PM

GIS WATERS PODs

• Plugged

World Imagery

High Resolution 60cm Imagery

Cotton Draw Unit #089

Nearest DTGW POD

C-04632-POD1

Distance

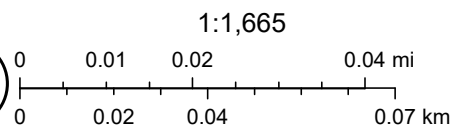
0.13 miles

Well Depth

55 ft bgs

Well Type

Monitor Well



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



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 1 (TW-1)		WELL TAG ID NO. N/A		OSE FILE NO(S). C-4632	
	WELL OWNER NAME(S) Devon Energy				PHONE (OPTIONAL) 575-748-1838	
	WELL OWNER MAILING ADDRESS 6488 7 Rivers Hwy				CITY Artesia	STATE ZIP NM 88210
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE	MINUTES 9	SECONDS 7.47	* ACCURACY REQUIRED: ONE TENTH OF A SECOND	
		LONGITUDE	103	45	41.06	* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE
NW NE NE Sec.10 T25S R31S NMPM

2. DRILLING & CASING INFORMATION	LICENSE NO. 1249	NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.			
	DRILLING STARTED 6/8/2022	DRILLING ENDED 6/8/2022	DEPTH OF COMPLETED WELL (FT) Temporary Well	BORE HOLE DEPTH (FT) ±55	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 6/14/2022		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	55	±6.5	Boring-HSA	--	--	--	--

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				

FOR OSE INTERNAL USE			WR-20 WELL RECORD & LOG (Version 01/28/2022)		
FILE NO.	C-4632	POD NO.	1	TRN NO.	726269
LOCATION	25S.31E.10 122	WELL TAG ID NO.		PAGE 1 OF 2	

Mike A. Hamman, P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 726269
File Nbr: C 04632
Well File Nbr: C 04632 POD1

Jun. 24, 2022

DALE WOODALL
DEVON ENERGY
6488 7 RIVERS HWY
ARTESIA, NM 88210

Greetings:

The above numbered permit was issued in your name on 05/24/2022.

The Well Record was received in this office on 06/16/2022, stating that it had been completed on 06/08/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 05/24/2023.

If you have any questions, please feel free to contact us.

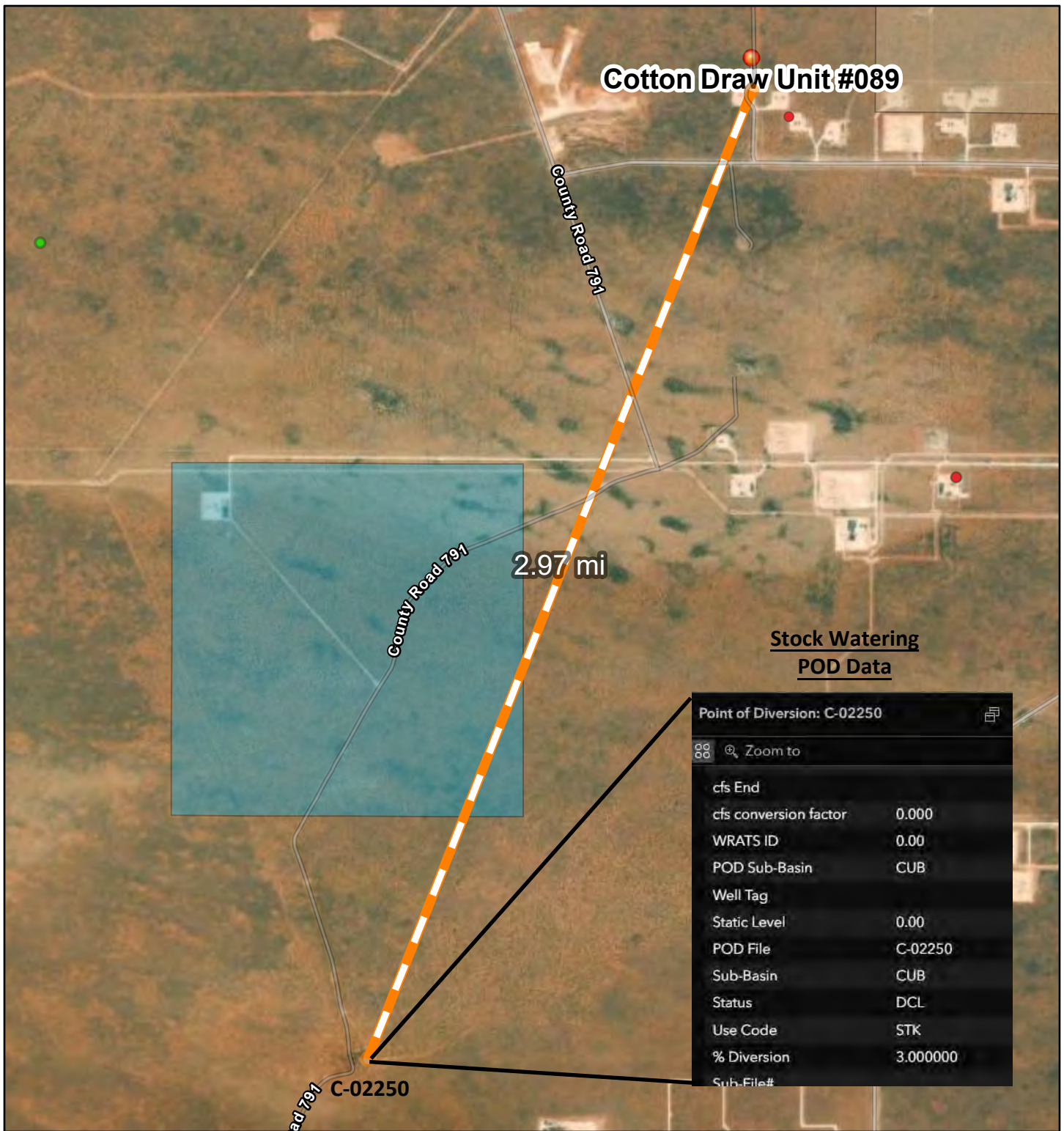
Sincerely,

A handwritten signature in blue ink, appearing to read "Azucena Ramirez".

Azucena Ramirez
(575) 622-6521

drywell

Cotton Draw Unit #089 Stock Watering POD Distance Map



6/4/2026, 3:16:30 PM

GIS WATERS PODs

- Pending
- Plugged
- Unknown

New Mexico State Trust Lands

- Subsurface Estate

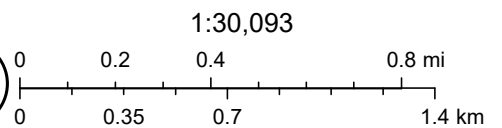
Both Estates

World Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations



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



U.S. Fish and Wildlife Service

National Wetlands Inventory

Cotton Draw Unit #089

Nearest Significant Watercourse: Riverine

Distance: 3.95 miles



June 9, 2026

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.

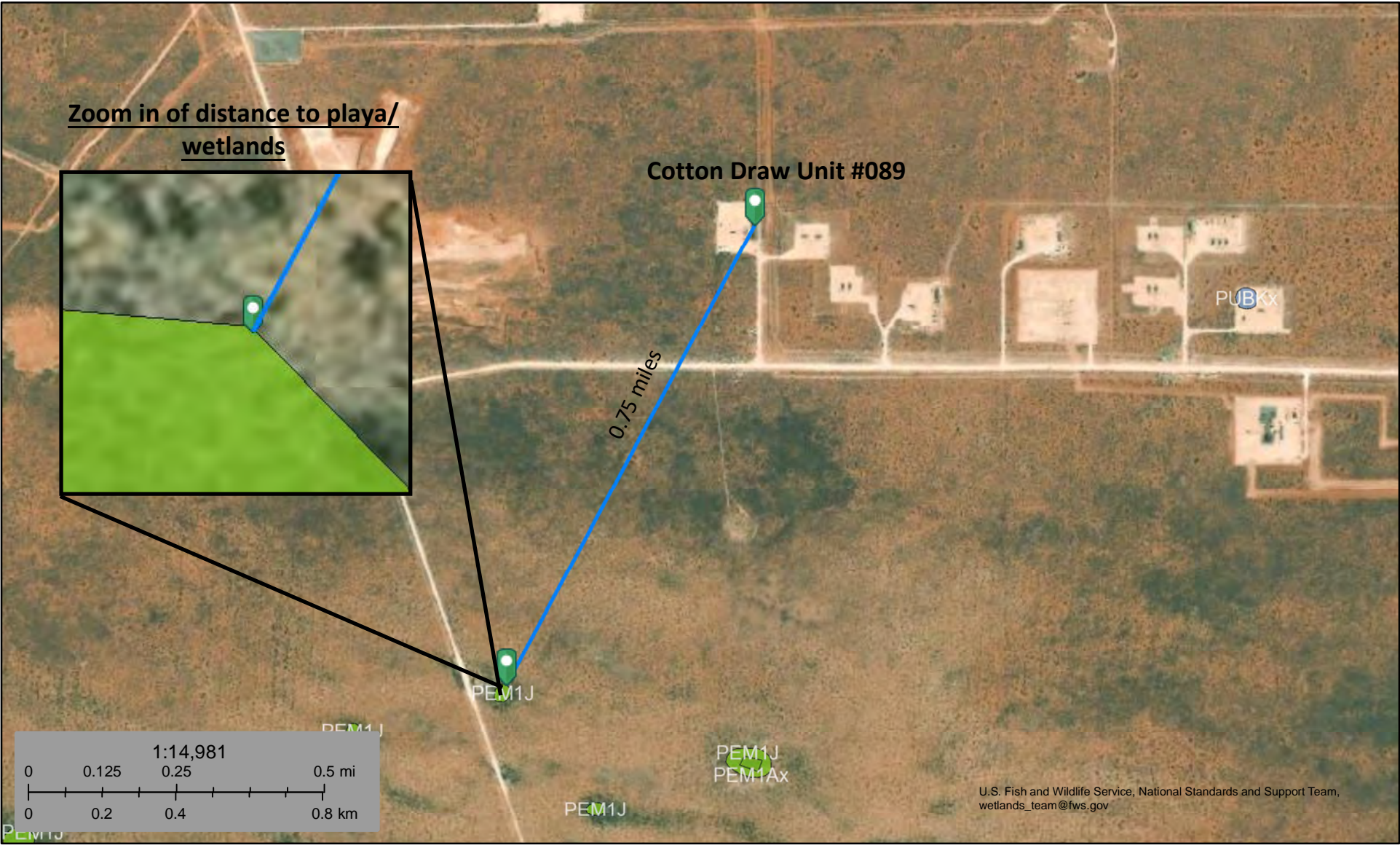


U.S. Fish and Wildlife Service

National Wetlands Inventory

Nearest Playa/Wetlands: Freshwater Emergent Wetland

Distance: 0.75 miles



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov

June 4, 2026

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.

Cotton Draw Unit #089

Nearest Distance to Residence: 12.28 miles

Legend

-  Cotton Draw Unit #089
-  Distance to Residence
-  Residence



Zoom in of distance to nearest residence

Residence

12.28 miles

Cotton Draw Unit #089






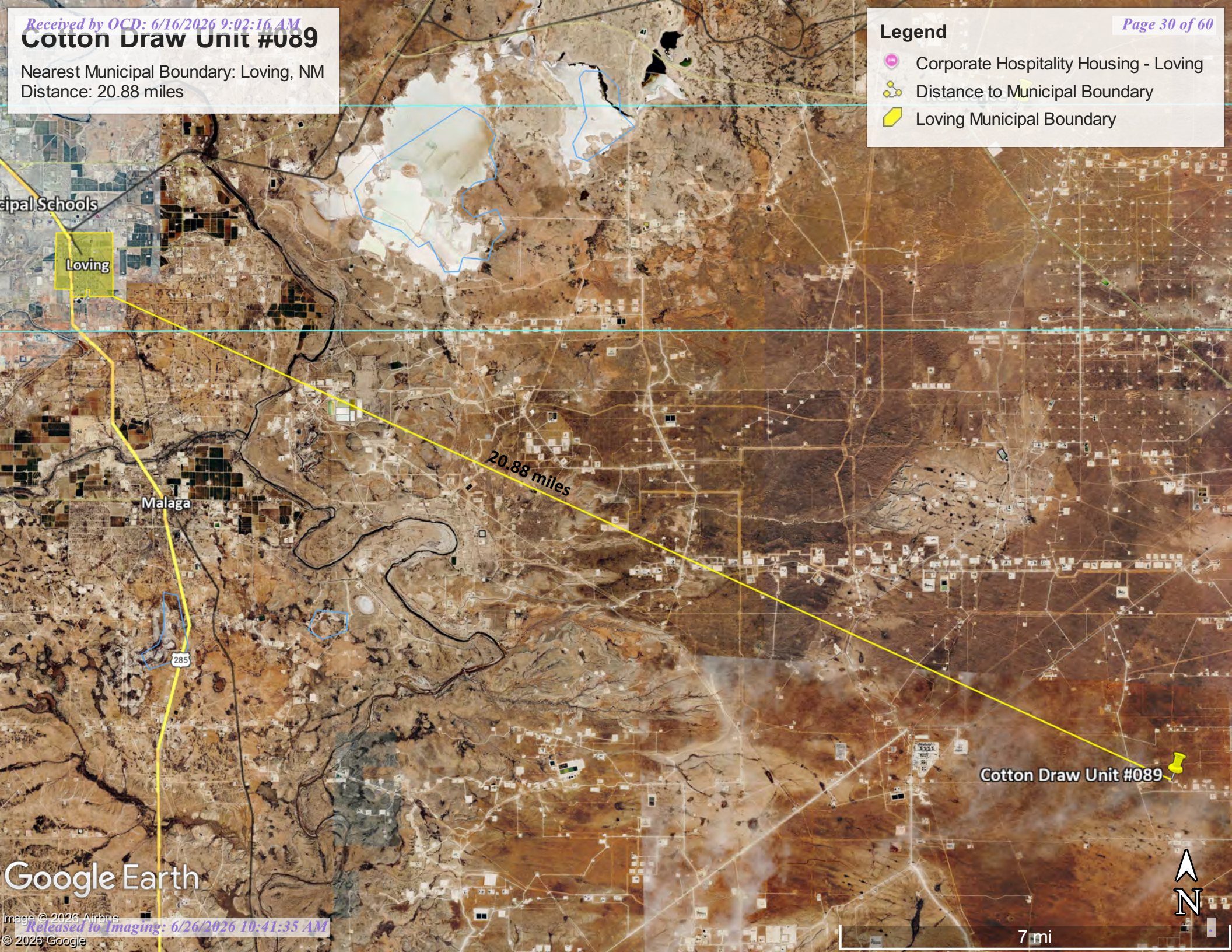
6 mi

Cotton Draw Unit #089

Nearest Municipal Boundary: Loving, NM
Distance: 20.88 miles

Legend

-  Corporate Hospitality Housing - Loving
-  Distance to Municipal Boundary
-  Loving Municipal Boundary



Municipal Schools

Loving

Malaga

285

20.88 miles

Cotton Draw Unit #089

Google Earth

7 mi

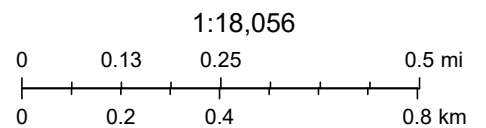


Cotton Draw Unit #089 Mines Proximity Map



6/9/2026, 10:31:31 AM

No Mines with 5-mile radius



Esri, HERE, Garmin, iPC, Vantor

Cotton Draw Unit #089 - Karst Potential Map



6/4/2026, 3:13:15 PM

Cotton Draw Unit #089

Karst Occurrence Potential

Low

Medium

Karst Potential

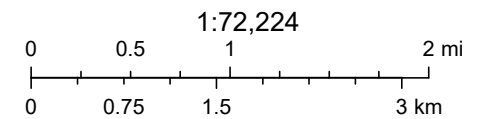
Low

Nearest Karst Zone

Medium

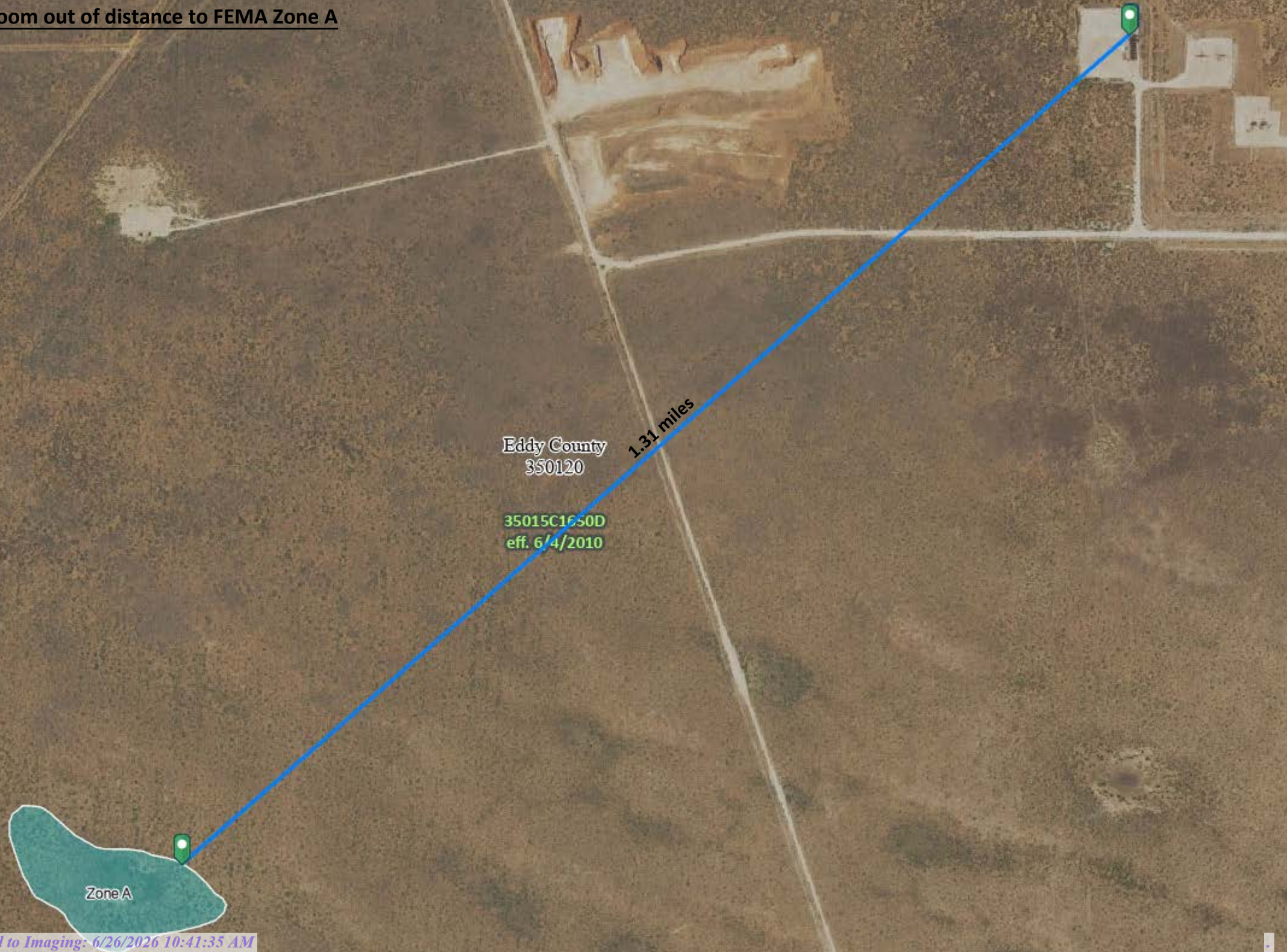
Distance

5.31 miles



Esri, HERE, Garmin, BLM, OCD, New Mexico Tech, Earthstar Geographics

Zoom out of distance to FEMA Zone A



National Flood Hazard Layer FIRMette

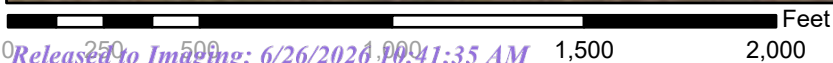
103°46'6"W 32°9'26"N



Legend

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

- | | | |
|------------------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
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 <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | Channel, Culvert, or Storm Sewer |
| OTHER FEATURES | | Levee, Dike, or Floodwall |
| | | 20.2 Cross Sections with 1% Annual Chance |
| | | 17.5 Water Surface Elevation |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| MAP PANELS | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |
- The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



1:6,000

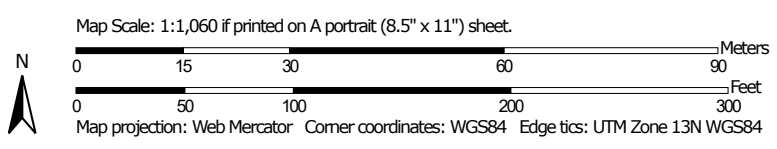
103°45'29"W 32°8'56"N

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 6/4/2026 at 9:43 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.


Soil Map—Eddy Area, New Mexico




Soil Map—Eddy Area, New Mexico


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: Eddy Area, New Mexico
 Survey Area Data: Version 21, Sep 9, 2025

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.

Soil Map—Eddy Area, New Mexico

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BB	Berino complex, 0 to 3 percent slopes, eroded	5.4	100.0%
Totals for Area of Interest		5.4	100.0%

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Eddy Area, New Mexico

BB—Berino complex, 0 to 3 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1w43

Landscape: Uplands

Elevation: 2,000 to 5,700 feet

Mean annual precipitation: 5 to 15 inches

Mean annual air temperature: 57 to 70 degrees F

Frost-free period: 180 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 60 percent

Pajarito and similar soils: 25 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landscape: Uplands

Landform: Fan piedmonts, Sandy plains

Landform position (three-dimensional): Riser

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand

H2 - 17 to 58 inches: sandy clay loam

H3 - 58 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Description of Pajarito

Setting

Landscape: Uplands

Landform: Interdunes, Sandy plains, Sand dunes

Landform position (three-dimensional): Side slope

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 9 inches: loamy fine sand

H2 - 9 to 72 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High
(2.00 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): 2e

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 4 percent

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Wink

Percent of map unit: 4 percent

Ecological site: R070BD003NM - Loamy Sand

Map Unit Description: Berino complex, 0 to 3 percent slopes, eroded---Eddy Area, New Mexico

Hydric soil rating: No

Cacique

Percent of map unit: 4 percent

Ecological site: R070BD004NM - Sandy

Hydric soil rating: No

Kermit

Percent of map unit: 3 percent

Ecological site: R070BD005NM - Deep Sand

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 21, Sep 9, 2025

Ecological site R070BD003NM Loamy Sand

Accessed: 06/09/2026

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Associated sites

R070BD004NM	Sandy Sandy
R070BD005NM	Deep Sand Deep Sand

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site is on uplands, plains, dunes, fan piedmonts and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands derived from sedimentary rock. Slope range on this site range from 0 to 9 percent with the average of 5 percent.

Low stabilized dunes may occur occasionally on this site. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont (2) Alluvial fan (3) Dune
Elevation	850 – 1,520 m
Slope	0 – 10 %

Aspect	Aspect is not a significant factor
--------	------------------------------------

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity-short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 207 to 220 days. The last killing frost being late March or early April and the first killing frost being in later October or early November.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest from January through June, which accelerates soil drying during a critical period for cool season plant growth.

Climate data was obtained from <http://www.wrcc.sage.dri.edu/summary/climsmnm.html> web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

Table 3 Representative climatic features

Frost-free period (average)	220 days
Freeze-free period (average)	240 days
Precipitation total (average)	330 mm

Influencing water features

This site is not influenced from water from wetlands or streams.

Soil features

Soils are moderately deep or very deep. Surface textures are loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam.

Subsurface is a loamy fine sand, coarse sandy loam, fine sandy loam or loam that averages less than 18 percent clay and less than 15 percent carbonates.

Substratum is a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and with less than 40 percent calcium carbonate. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic soils are:

- Maljamar
- Berino
- Parjarito
- Palomas
- Wink
- Pyote

Table 4. Representative soil features

Surface texture	(1) Fine sand (2) Fine sandy loam (3) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to moderately rapid
Soil depth	100 – 180 cm
Surface fragment cover <=3"	0 – 10 %
Surface fragment cover >3"	Not specified
Available water capacity (0-101.6cm)	12.7 – 17.78 cm
Calcium carbonate equivalent (0-101.6cm)	0 – 40 %
Electrical conductivity (0-101.6cm)	Not specified
Sodium adsorption ratio (0-101.6cm)	Not specified
Soil reaction (1:1 water) (0-101.6cm)	6.6 – 8.4
Subsurface fragment volume <=3" (Depth not specified)	0 – 10 %

Subsurface fragment volume >3" (Depth not specified)	Not specified
---	---------------

Ecological dynamics

Overview

The Loamy Sand site intergrades with the Deep Sand and Sandy sites (SD-3). These sites can be differentiated by surface soil texture and depth to a textural change. Loamy Sand and Deep Sand sites have coarse textured (sands and loamy sand) surface soils while Sandy sites have moderately coarse textured (sandy loam and fine sandy loam) surfaces. Although Loamy Sand and Deep Sand sites have similar surface textures, the depth to a textural change is different—Loamy Sand sub-surface textures typically increase in clay at approximately 20 to 30 inches, and Deep Sand sites not until around 40 inches.

The historic plant community of Loamy Sand sites is dominated by black grama (*Bouteloua eriopoda*), dropseeds (*Sporobolus flexuosus*, *S. contractus*, *S. cryptandrus*), and bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), with scattered shinnery oak (*Quercus havardii*) and sand sage (*Artemisia filifolia*). Perennial and annual forb abundance and distribution are dependent on precipitation. Litter and to a lesser extent, bare ground, are a significant proportion of ground cover while grasses compose the remainder. Decreases in black grama indicate a transition to either a grass/shrub or shrub-dominated state. The grass/shrub state is composed of grasses/honey mesquite (*Prosopis glandulosa*), grasses/broom snakeweed (*Gutierrezia sarothrae*), or grasses/sand sage. The shrub-dominated state occurs after a severe loss of grass cover and a prevalence of sand sage with secondary shinnery oak and mesquite. Heavy grazing intensity and/or drought are influential drivers in decreasing black grama and bluestems and subsequently increasing shrub cover, erosion, and bare patches. Historical fire suppression also encourages shrub pervasiveness and a competitive advantage over grass species (McPherson 1995). Brush and grazing management, however, may reverse grass/shrub and shrub-dominated states toward the grassland-dominated historic plant community.

State and transition model

Additional community tables

Table 5. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
Grass/Grasslike					
1	Warm Season			68-138	
	little bluestem	SCSC	<i>Schizachyrium scoparium</i>	68-138	–
2	Warm Season			41-68	
	sand bluestem	ANHA	<i>Andropogon hallii</i>	41-68	–
3	Warm Season			41-68	
	cane bluestem	BOBA3	<i>Bothriochloa barbinodis</i>	41-68	–
	silver bluestem	BOSA	<i>Bothriochloa saccharoides</i>	41-68	–
4	Warm Season			138-206	
	black grama	BOER4	<i>Bouteloua eriopoda</i>	138-206	–
	bush muhly	MUPO2	<i>Muhlenbergia porteri</i>	138-206	–
5	Warm Season			138-206	
	thin paspalum	PASE5	<i>Paspalum setaceum</i>	138-206	–
	plains bristlegass	SEVU2	<i>Setaria vulpiseta</i>	138-206	–
	fringed signalgrass	URCI	<i>Urochloa ciliatissima</i>	138-206	–
6	Warm Season			138-206	
	spike dropseed	SPCO4	<i>Sporobolus contractus</i>	138-206	–
	sand dropseed	SPCR	<i>Sporobolus cryptandrus</i>	138-206	–
	mesa dropseed	SPFL2	<i>Sporobolus flexuosus</i>	138-206	–
7	Warm Season			68-138	

	hooded windmill grass	CHCU2	<i>Chloris cucullata</i>	68-138	-
	Arizona cottontop	DICA8	<i>Digitaria californica</i>	68-138	-
9	Other Perennial Grasses			41-68	
	Grass, perennial	2GP	<i>Grass, perennial</i>	41-68	-
Shrub/Vine					
8	Warm Season			41-68	
	New Mexico feathergrass	HENE5	<i>Hesperostipa neomexicana</i>	41-68	-
	giant dropseed	SPGI	<i>Sporobolus giganteus</i>	41-68	-
10	Shrub			68-138	
	sand sagebrush	ARFI2	<i>Artemisia filifolia</i>	68-138	-
	Havard oak	QUHA3	<i>Quercus havardii</i>	68-138	-
11	Shrub			38-68	
	fourwing saltbush	ATCA2	<i>Atriplex canescens</i>	41-68	-
	featherplume	DAFO	<i>Dalea formosa</i>	41-68	-
12	Shrub			41-68	
	jointfir	EPHED	<i>Ephedra</i>	41-68	-
	littleleaf ratany	KRER	<i>Krameria erecta</i>	41-68	-
13	Other Shrubs			41-68	
	Shrub (>.5m)	2SHRUB	<i>Shrub (>.5m)</i>	41-68	-
Forb					
14	Forb			68-138	
	leatherweed	CRPOP	<i>Croton pottsii var. pottsii</i>	68-138	-
	Indian blanket	GAPU	<i>Gaillardia pulchella</i>	68-138	-
	globemallow	SPHAE	<i>Sphaeralcea</i>	68-138	-
15	Forb			13-41	
	woolly groundsel	PACA15	<i>Packera cana</i>	13-41	-
16	Forb			68-138	
	touristplant	DIWI2	<i>Dimorphocarpa wislizeni</i>	68-138	-
	woolly plantain	PLPA2	<i>Plantago patagonica</i>	68-138	-
17	Other Forbs			41-68	
	Forb (herbaceous, not grass nor grass-like)	2FORB	<i>Forb (herbaceous, not grass nor grass-like)</i>	41-68	-

Table 6. Community 2.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
-------	-------------	--------	-----------------	----------------------	------------------

Table 7. Community 3.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
-------	-------------	--------	-----------------	----------------------	------------------

Animal community

This Ecological Site provides habitat which supports a resident animal community that is characterized by pronghorn antelope, desert cottontail, spotted ground squirrel, black-tailed prairie dog, yellow faced pocket gopher, Ord’s kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, roadrunner, meadowlark, burrowing owl, white necked raven, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake, dusty hognose snake and ornate box turtle. Where mesquite has invaded, most resident birds and scissor-tailed flycatcher, morning dove and Swainson’s hawk, nest. Vesper and grasshopper sparrows utilize the site during migration.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups. Hydrologic Interpretations Soil Series Hydrologic Group Berino B Kinco A Maljamar B Pajarito B Palomas B Wink B Pyote A

Recreational uses

This site offers recreation potential for hiking, horseback riding, nature observation, photography and hunting. During years of abundant spring moisture, this site displays a colorful array of wildflowers during May and June.

Wood products

This site has no potential for wood products.

Other products

This site is suitable for grazing by all kinds and classes of livestock at any time of year. In cases where this site has been invaded by brush species it is especially suited for goats. Mismanagement of this site will cause a decrease in species such as the bluestems, black grama, bush muhly, plains bristlegrass, New Mexico feathergrass, Arizona cottontop and fourwing saltbush. A corresponding increase in the dropseeds, windmill grass, fall witchgrass, silver bluestem, sand sagebrush, shiner oak and ephedra will occur. This will also cause an increase in bare ground which will increase soil erodibility. This site will respond well to a system of management that rotates the season of use.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month Similarity Index Ac/AUM 100 - 76 2.3 - 3.5 75 - 51 3.0 - 4.5 50 - 26 4.6 - 9.0 25 - 0 9.1 +

Inventory data references

Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico. This site has been mapped and correlated with soils in the following soil surveys. Eddy County, Lea County, and Chaves County.

Other references

Literature Cited:

Ansley, R. J.; Jacoby, P. W. 1998. Manipulation of fire intensity to achieve mesquite management goals in north Texas. In: Pruden, Teresa L.; Brennan, Leonard A., eds. Fire in ecosystem management: shifting the paradigm from suppression to prescription: Proceedings, Tall Timbers fire ecology conference; 1996 May 7-10; Boise, ID. No. 20. Tallahassee, FL: Tall Timbers Research Station: 195-204.

Ansley, R. J.; Jones, D. L.; Tunnell, T. R.; [and others]. 1998. Honey mesquite canopy responses to single winter fires: relation to herbaceous fuel, weather and fire temperature. *International Journal of Wildland Fire* 8(4):241-252.

Britton, Carlton M.; Wright, Henry A. 1971. Correlation of weather and fuel variables to mesquite damage by fire. *Journal of Range Management* 24:136-141.

Davis, Joseph H., III and Bonham, Charles D. 1979. Interference of sand sagebrush canopy with needleandthread. *Journal of Range Management* 32(5):384-386.

Herbel, C. H., Steger, R., Gould, W. L. 1974. Managing semidesert ranges of the Southwest Circular 456. Las Cruces, NM: New Mexico State University, Cooperative Extension Service. 48 p.

McDaniel, Kirk C.; Pieper, Rex D.; Loomis, Lyn E.; Osman, Abdelgader A. 1984. Taxonomy and ecology of perennial snakeweeds in New Mexico. Bulletin 711. Las Cruces, NM: New Mexico State University, Agricultural Experiment Station. 34 p.

McPherson, Guy R. 1995. The role of fire in the desert grasslands. In: McClaran, Mitchell P.; Van Devender, Thomas R., eds. *The desert grassland*. Tucson, AZ: The University of Arizona Press: 130-151.

Pettit, Russell D. 1986. Sand shinnery oak: control and management. Management Note

8. Lubbock, TX: Texas Tech University, College of Agricultural Sciences, Department of Range and Wildlife Management. 5 p.

Contributors

Don Sylvester
Quinn Hodgson

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. Number and extent of rills:

2. Presence of water flow patterns:

3. Number and height of erosional pedestals or terracettes:

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):

5. Number of gullies and erosion associated with gullies:

6. Extent of wind scoured, blowouts and/or depositional areas:

7. Amount of litter movement (describe size and distance expected to travel):

8. Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):

9. Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):

10. Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):

12. Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

Dominant:

Sub-dominant:

Other:

Additional:

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):

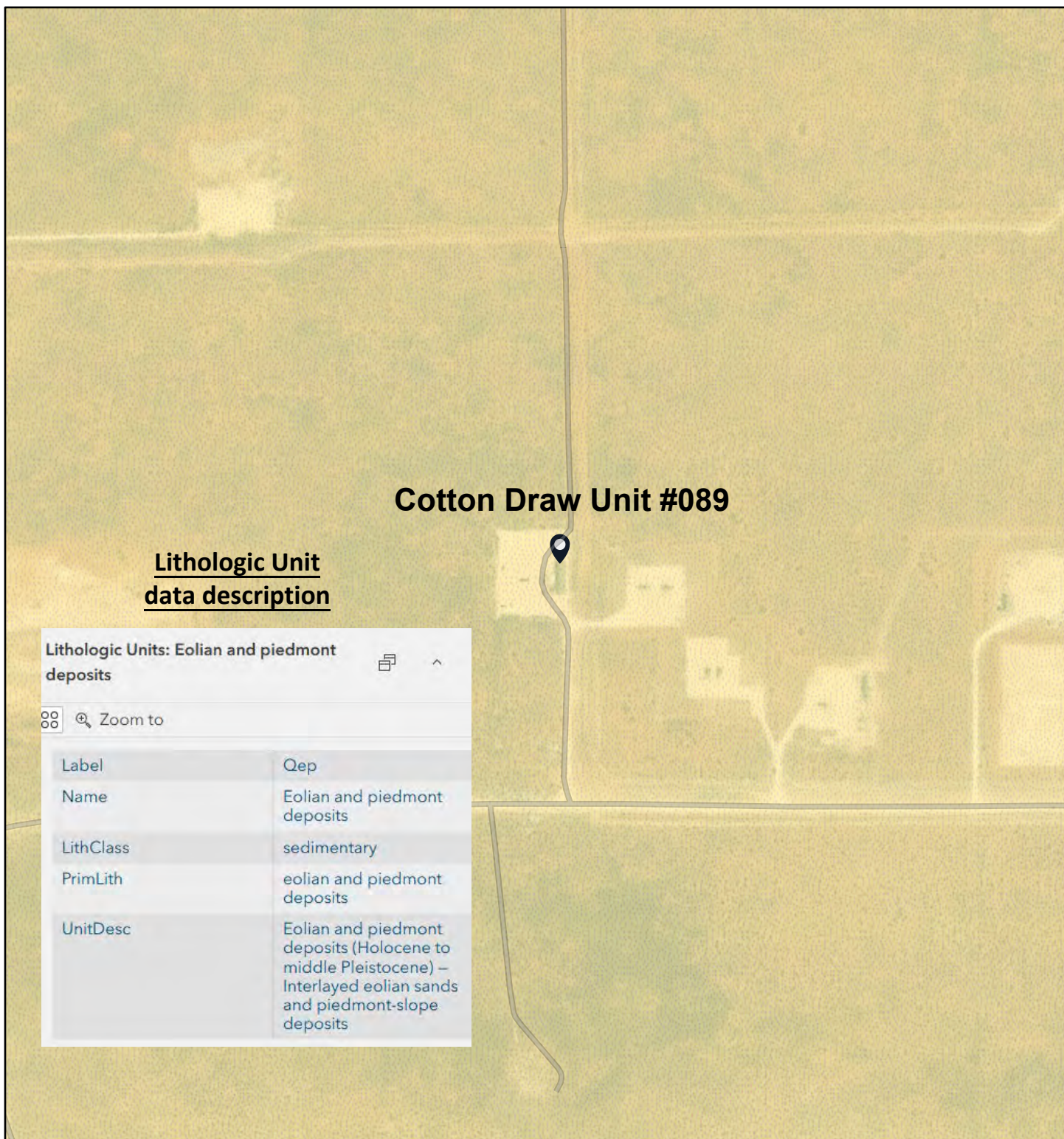
14. Average percent litter cover (%) and depth (in):

15. Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):

16. Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:

17. Perennial plant reproductive capability:

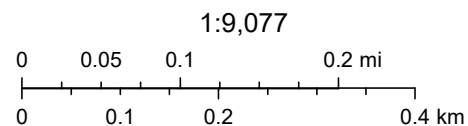
Cotton Draw Unit #089 - Geological Map



6/9/2026

Lithologic_Units

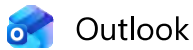
Qep—Eolian and piedmont deposits (Holocene to middle Pleistocene) — Interlayered eolian sands and piedmont-slope deposits



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

APPENDIX C

CORRESPONDENCE



RE: [EXTERNAL] nAPP2603445332 Cotton Draw Unit #089 SWD Extension Request

From Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>

Date Mon 2026-05-04 10:07 AM

To Monica Peppin <Monica.Peppin@kljeng.com>

Cc Will Harmon <will.harmon@kljeng.com>; Bob Raup <Bob.Raup@kljeng.com>; Raley, Jim <jim.ralej@dvn.com>

You don't often get email from scott.rodgers@emnrd.nm.gov. [Learn why this is important](#)

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Your time extension request is approved. Remediation Due date has been updated to June 18, 2026 within the incident page. Ensure that the site characterization/assessment report has been completed and is provided within the final closure report.

Please keep a copy of this communication for inclusion within the appropriate reporting documentation.

If you have any questions, please contact me via email at your convenience.

Thank you,
Scott

Scott Rodgers • Senior Environmental Scientist
Environmental Bureau
EMNRD - Oil Conservation Division
5200 Oakland NE, Suite B | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd>



From: Monica Peppin <Monica.Peppin@kljeng.com>

Sent: Friday, May 1, 2026 6:10 PM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

Cc: Will Harmon <will.harmon@kljeng.com>; Bob Raup <Bob.Raup@kljeng.com>; Raley, Jim

<Jim.Raley@dvN.com> <Jim.Raley@dvN.com>

Subject: [EXTERNAL] nAPP2603445332 Cotton Draw Unit #089 SWD Extension Request

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

To whom it may concern:

On behalf of Devon Energy, KLJ respectfully requests a 45-day extension for the release associated with incident ID nAPP2603445332.

Due to recent inclement weather, the secondary containment has accumulated water. As a result, the scheduled inspection is being delayed allowing time for the containment to dry out and/or pressure washed so it is ready for inspection.

The current deadline is on May 4, 2026. The requested extension will allow provide sufficient time to clear the containment, reschedule the inspection, and complete reporting.

We appreciate your time and consideration of this request.

Thank you,
Monica

Monica Peppin, A.S.
Environmental Specialist II



575-213-9010 Direct

575-909-3418 Cell

Carlsbad, NM 88220

kljeng.com



[Book time to meet with me](#)



RE: [EXTERNAL] nAPP2603445332 Cotton Draw Unit #089 Liner Inspection Notification

From Raley, Jim <Jim.Raley@dvn.com>
Date Wed 2026-05-20 12:04 PM
To Monica Peppin <Monica.Peppin@kljeng.com>
Cc Will Harmon <will.harmon@kljeng.com>

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Submitted 5/20

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.rale@dvn.com



From: Monica Peppin <Monica.Peppin@kljeng.com>
Sent: Wednesday, May 20, 2026 11:18 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Will Harmon <will.harmon@kljeng.com>
Subject: [EXTERNAL] nAPP2603445332 Cotton Draw Unit #089 Liner Inspection Notification

Jim,

Here is the liner notification for the Cotton Draw Unit 089. It is scheduled for Friday, May 22, 2026 at 1:00 PM. Let me know if I need to adjust the time any or if you have any questions.

Liner Inspection

What is the liner inspection surface area in square feet	5,374
Have all the impacted materials been removed from the liner	Yes
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	5/22/2026
Time liner inspection will commence	1300PM
Please provide any information necessary for observers to liner inspection	Monica Peppin 575.909.3418
Please provide any information necessary for navigation to liner inspection site	32.153093, -103.763266
Incident	nAPP2603445332

Thank you,

Monica

Monica Peppin, A.S.
Environmental Specialist II



575-213-9010 **Direct**

575-909-3418 **Cell**

Carlsbad, NM 88220

kljeng.com



[Book time to meet with me](#)

Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 595730

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 595730
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2603445332
Incident Name	NAPP2603445332 COTTON DRAW UNIT #089 @ 30-015-31381
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-31381] COTTON DRAW UNIT #089

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	COTTON DRAW UNIT #089
Date Release Discovered	02/02/2026
Surface Owner	Federal

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

Nature and Volume of Release	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Freeze Pump Produced Water Released: 28 BBL Recovered: 28 BBL Lost: 0 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)	Pump froze and allowed fluids to leak into lined secondary containment.

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS, Page 2

Action 595730

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 595730
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

Initial Response

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

The source of the release has been stopped	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: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 06/16/2026
--	--

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS, Page 3

Action 595730

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 595730
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
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	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
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 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
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	Between 1 and 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
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
<i>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>	
On what estimated date will the remediation commence	05/22/2026
On what date will (or did) the final sampling or liner inspection occur	05/22/2026
On what date will (or was) the remediation complete(d)	05/22/2026
What is the estimated surface area (in square feet) that will be remediated	5374
What is the estimated volume (in cubic yards) that will be remediated	0

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.

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS, Page 4

Action 595730

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 595730
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
Is (or was) there affected material present needing to be removed	Yes
Is (or was) there a power wash of the lined containment area (to be) performed	Yes
OTHER (Non-listed remedial process)	Not answered.
<i>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>	
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: James Raley Title: EHS Professional Email: jim.raley@dvnm.com Date: 06/16/2026
<i>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.</i>	

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS, Page 6

Action 595730

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 595730
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Liner Inspection Information	
Last liner inspection notification (C-141L) recorded	587063
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	05/22/2026
Was all the impacted materials removed from the liner	Yes
What was the liner inspection surface area in square feet	5374

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
What was the total surface area (in square feet) remediated	5374
What was the total volume (cubic yards) remediated	0
Summarize any additional remediation activities not included by answers (above)	Liner Inspected

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

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 06/16/2026
--	--

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 595730

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 595730
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	Liner Inspection Report is approved	6/26/2026