



Incident Number: nAPP2602836374

Liner Inspection Closure Report

Vega 29 Fed 1H_2H Battery

Unit B, Section 29, Township 19 South, Range 31 East

Facility I.D: fAPP2130651847

Coordinates: 32.63825633, -103.8904197

Eddy County

Vertex File Number: 26A-00873

Prepared for:

Devon Energy Production Company, LP

Prepared by:

Vertex Resource Services Inc.

Date:

May 2026

Devon Energy Production, LP
Vega 29 Fed 1H_2H Battery

Liner Inspection Closure Report
May 2026

Liner Inspection Closure Report
Vega 29 Fed 1H_2H Battery
Unit B, Section 29, Township 19 South, Range 31 East
Facility I.D: fAPP2130651847
Coordinates: 32.63825633, -103.8904197
Eddy County

Prepared for:
Devon Energy Production Company, LP
5313 Buena Vista Dr
Carlsbad, New Mexico 88220

New Mexico Oil Conservation Division
508 West Texas Avenue
Artesia, New Mexico 88210

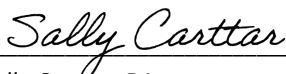
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John Rewis, B.Sc.
ENVIRONMENTAL TECHNICIAN, REPORTING

May 8, 2026

Date



Sally Carttar, BA
PROJECT MANAGER, REPORT REVIEW

May 8, 2026

Date

Devon Energy Production, LP
Vega 29 Fed 1H_2H Battery

Liner Inspection Closure Report
May 2026

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Devon Energy Production, LP
Vega 29 Fed 1H_2H Battery

Liner Inspection Closure Report
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1.0 Introduction

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to complete a Liner Inspection and Closure Report for a produced water release that occurred on January 26, 2026, at the Vega 29 Fed 1H_2H Battery (hereafter referred to as the “site”). Devon submitted an initial C-141 release notification to the New Mexico Oil Conservation Division (NMOCD) on January 29, 2026. Incident ID nAPP2602836374 was assigned to this release.

This report provides a description of the site assessment, clean-up activities, and a liner inspection associated with the site. The information presented demonstrates the closure requirements of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of the release site will be deferred until such time as all oil and gas activities are terminated and the site is reclaimed as per NMAC 19.15.29.13.

2.0 Incident Description

The release occurred on January 26, 2026, due to a nipple freezing on a line and allowing fluids to be released. The incident was reported on January 28, 2026, and involved the release of approximately 99 barrels (bbl.) of produced water into lined containment. All 99 bbl. of free fluid were contained within the lined containment and recovered during initial clean-up. Additional details relevant to the release are presented in the C-141 Report.

3.0 Site Characteristics

The site is located approximately 21.1 south miles south of Loco Hills, New Mexico. The legal location for the site is Unit B, Section 29, Township 19 South and Range 31 East in Eddy County, New Mexico. The release area is located on Federal property. An aerial photograph and site schematic are presented on Figure 1.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2026) indicates the site’s surface geology primarily comprises TO – Ogalla Formation (lower Pliocene to middle Miocene), and the soil at the site is characterized as KM – Kermit Berino Fine Sands (United States Department of Agriculture, Natural Resources Conservation Service, 2026). Additional soil characteristics include a drainage class of well drained with a runoff class of low. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018).

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production and storage. The following sections specifically describe the release area 32.63825633, -103.8904197 on to the constructed pad (Figure 1).

The surrounding landscape is associated with alluvial fans, valley plains with elevations ranging between 3,100 and 4,200 feet. The climate is semiarid with average annual precipitation ranging between 10 and 14 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be black gramma, tobosa, blue gramma, and other mixed shrubs. Grasses with shrubs and half-shrubs dominate the historical

plant community (United States Department of Agriculture, Natural Resources Conservation Service, 2026). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

4.0 Closure Criteria Determination

The nearest well is an exploration well (CP 01941) located approximately 0.31 miles southeast of the site with a recorded depth to groundwater of 54 feet below ground surface (New Mexico Office of the State Engineer, 2026). Information pertaining to the depth to ground water determinations is included in Appendix A.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is a riverine located approximately 0.84 miles northwest of the site (United States Fish and Wildlife Service, 2026).

At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Devon Energy Production Company, LP
 Vega 29 Fed 1H_2H Battery

Liner Inspection Closure Report
 May 2026

Table 1. Closure Criteria Determination			
Site Name: Vega 29 Fed 1H_2H Battery			
Spill Coordinates: 32.63825633,-103.8904197		X: 604076	Y: 3611729
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	54	feet
	Distance between release and nearest DTGW reference	1,636	feet
		0.31	miles
	Date of nearest DTGW reference measurement	May 4, 2023	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	7,329	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	12,578	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	4,957	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or	5,270	feet
	ii) Within 1000 feet of any fresh water well or spring	5,270	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	
7	Within 300 feet of a wetland	7,444	feet
8	Within the area overlying a subsurface mine	No	
	Distance between release and nearest registered mine	35,975	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	827	feet
10	Within a 100-year Floodplain	No	
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	11,986	feet
11	Soil Type	KM - Kermit Berino Fine Sands	
12	Ecological Classification	Deep Sand	
13	Geology	TO	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	≤ 50' 51-100' >100'

5.0 Remedial Actions Taken

A liner inspection was scheduled and completed on May 8, 2026. The liner was washed prior to the inspection, removing all, gravel, mud, trash, salt, and brush. Visual observation of the liner was completed on all sides and the base of the containment, around equipment, and of all seams in the liner. As evidenced in the Daily Field Report (Appendix B), liner integrity was confirmed with no damage or breaches of material. Notification that the liner inspection was being performed was submitted on May 6, 2026, and can be found on the NMOCD Web Portal.

6.0 Closure Request

Vertex recommends no additional remediation action to address the release at the site. The containment liner was intact and contained the release. There are no anticipated risks to human, ecological, or hydrological receptors associated with the release site.

Vertex requests that this Incident (nAPP2602836374) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Devon certifies that all information in this report and appendices are correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the site.

Should you have any questions or concerns, please do not hesitate to contact Sally Carttar at 575.361.3561 or Scarttar@vertexresource.com

7.0 References

- Google Inc. (2026). *Google Earth Pro (Version 7.3.3)* [Software]. Retrieved from <https://earth.google.com>
- New Mexico Bureau of Geology and Mineral Resources. (2026). *Interactive Geologic Map*. Retrieved from <https://maps.nmt.edu/>
- New Mexico Department of Surface Water Quality Bureau. (2026). *Assessed and Impaired Waters of New Mexico*. Retrieved from <https://gis.web.env.nm.gov/oem/?map=swqb>
- New Mexico Energy, Minerals and Natural Resources Department. (2026). *OCD Permitting - Spill Search*. Retrieved from <https://wwwapps.emnrd.nm.gov/ocd/ocdpermitting/Data/Spills/Spills.aspx>
- New Mexico Mining and Minerals Division. (2026). *Coal Mine Resources in New Mexico*. Retrieved from <https://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=5f80f3b0faa545e58fe747cc7b037a93>
- New Mexico Office of the State Engineer. (2026a). *Point of Diversion Location Report - New Mexico Water Rights Reporting System*. Retrieved from <http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html>
- New Mexico Office of the State Engineer. (2026b). *Water Column/Average Depth to Water Report - New Mexico Water Rights Reporting System*. Retrieved from <http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html>
- New Mexico Office of the State Engineer. (2026c). *Well Log/Meter Information Report - New Mexico Water Rights Reporting System*. Retrieved from <http://nmwrrs.ose.state.nm.us/nmwrrs/meterReport.html>
- New Mexico Oil Conservation Division. (2018). *New Mexico Administrative Code – Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.
- United States Department of Agriculture, Natural Resources Conservation Service. (2026). *Web Soil Survey*. Retrieved from <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- United States Department of Homeland Security, Federal Emergency Management Agency. (2026). *FEMA Flood Map Service: Search by Address*. Retrieved from <https://msc.fema.gov/portal/search?AddressQuery=malaga%20new%20mexico#searchresultsanchor>
- United States Department of the Interior, Bureau of Land Management. (2018). *New Mexico Cave/Karst*. Retrieved from https://www.nm.blm.gov/shapeFiles/cfo/carlsbad_spatial_data.html
- United States Fish and Wildlife Service. (2026). *National Wetland Inventory - Surface Waters and Wetlands*. Retrieved from <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>
- United States Geological Survey. (2026). *National Water Information System: Web Interface*. Retrieved from <https://waterdata.usgs.gov/nwis>

8.0 Limitations

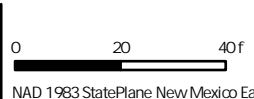
This report has been prepared for the sole benefit of Devon Energy Production Company, LP (Devon). This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and the Bureau of Land Management, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

Figures



□ Tank Battery Containment (~ 4427 sq ft)



Map Center:
 Lat/Long: 32.638409°N, 103.889877°W

Date: Apr 13/26



Liner Inspect on Site Schemat c
 Vega 29 Federal 1H_2H

FIGURE:
 1



Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2025. Site features from GPS, Vertex, 2025.

VERSATILITY. EXPERTISE.

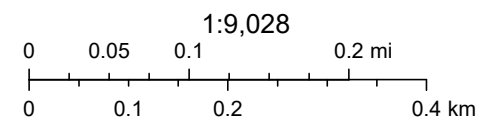
APPENDIX A – Closure Criteria Research Documentation

Vega 29 Fed 1H_2H Battery - DTGW



1/28/2026, 12:47:29 PM

● OSE Points of Diversion




Vantor

Point of Diversion Summary

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

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
NA	CP 01941 POD1	SW	NE	NE	29	19S	31E	604524.2	3611512.8	

* UTM location was derived from PLSS - see Help

Driller License:	1249	Driller Company:	ATKINS ENGINEERING ASSOC. INC.		
Driller Name:	JACKIE D. ATKINS				
Drill Start Date:	2023-04-04	Drill Finish Date:	2023-04-04	Plug Date:	2023-04-18
Log File Date:	2023-04-28	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	
Casing Size:		Depth Well:	55	Depth Water:	54

Water Bearing Stratifications:

Top	Bottom	Description
40	55	Shale/Mudstone/Siltstone

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/28/26 12:50 PM MST

Point of Diversion Summary

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Water Right Summary



[get image list](#)

WR File Number:	CP 01941	Subbasin:	CP	Cross Reference:	
Primary Purpose:	EXP EXPLORATION				
Primary Status:	PMT Permit				
Total Acres:		Subfile:		Header:	
Total Diversion:	0.000	Cause/Case:			
Owner:	DEVON ENERGY	Owner Class:	User		
Contact:	DALE WOODALL				

Documents on File

(acre-fee)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion
_get images	740387	EXPL	2023-01-12	PMT	LOG	CP 01941 POD1	T	0.000	0.000

Current Points of Diversion

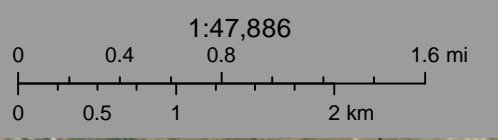
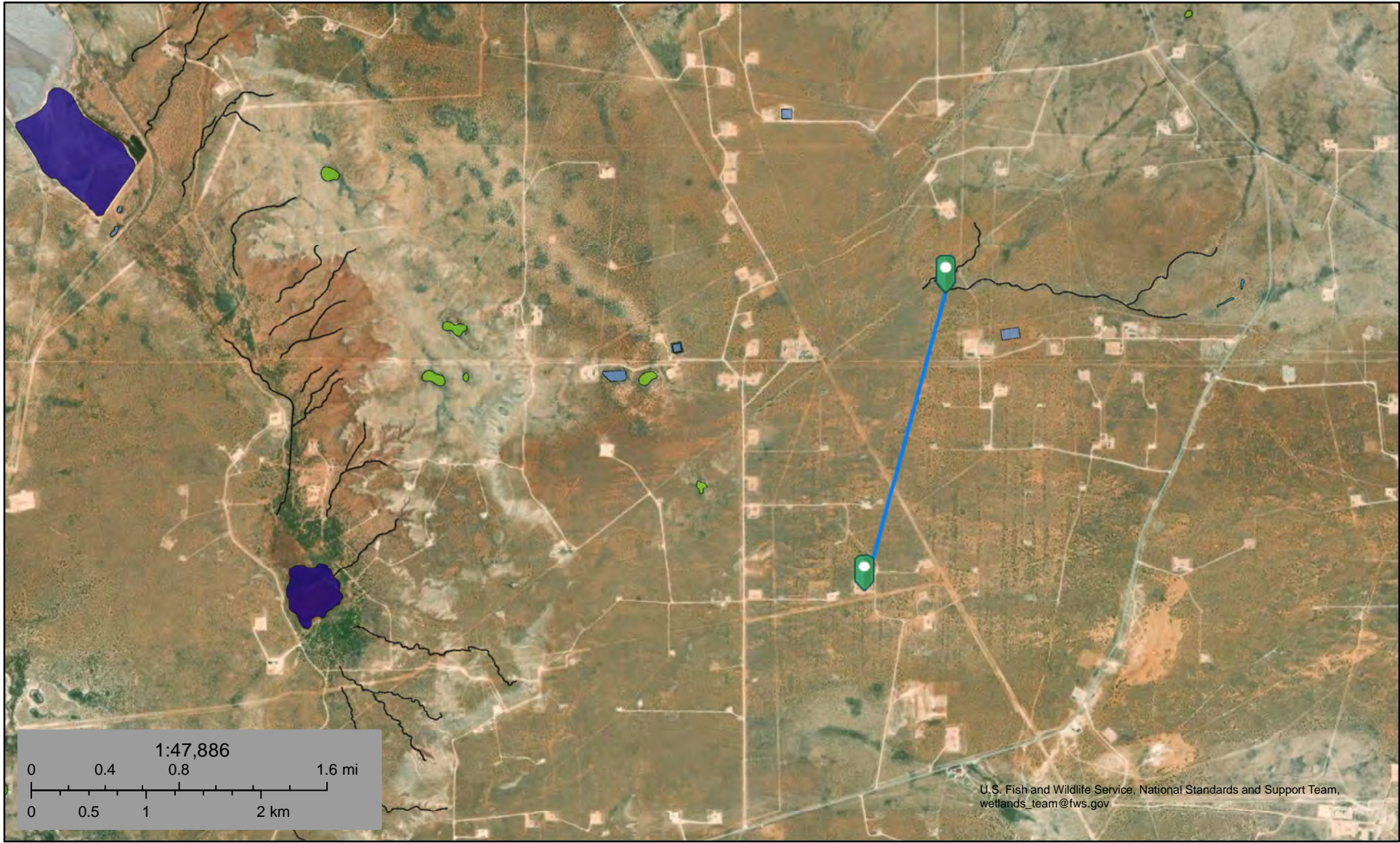
POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
CP 01941 POD1	NA	Shallow	SW	NE	NE	29	19S	31E	604524.2	3611512.8		

* UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



Vega 29 Fed 1H_2H Battery Watercourse 7,329ft



January 28, 2026

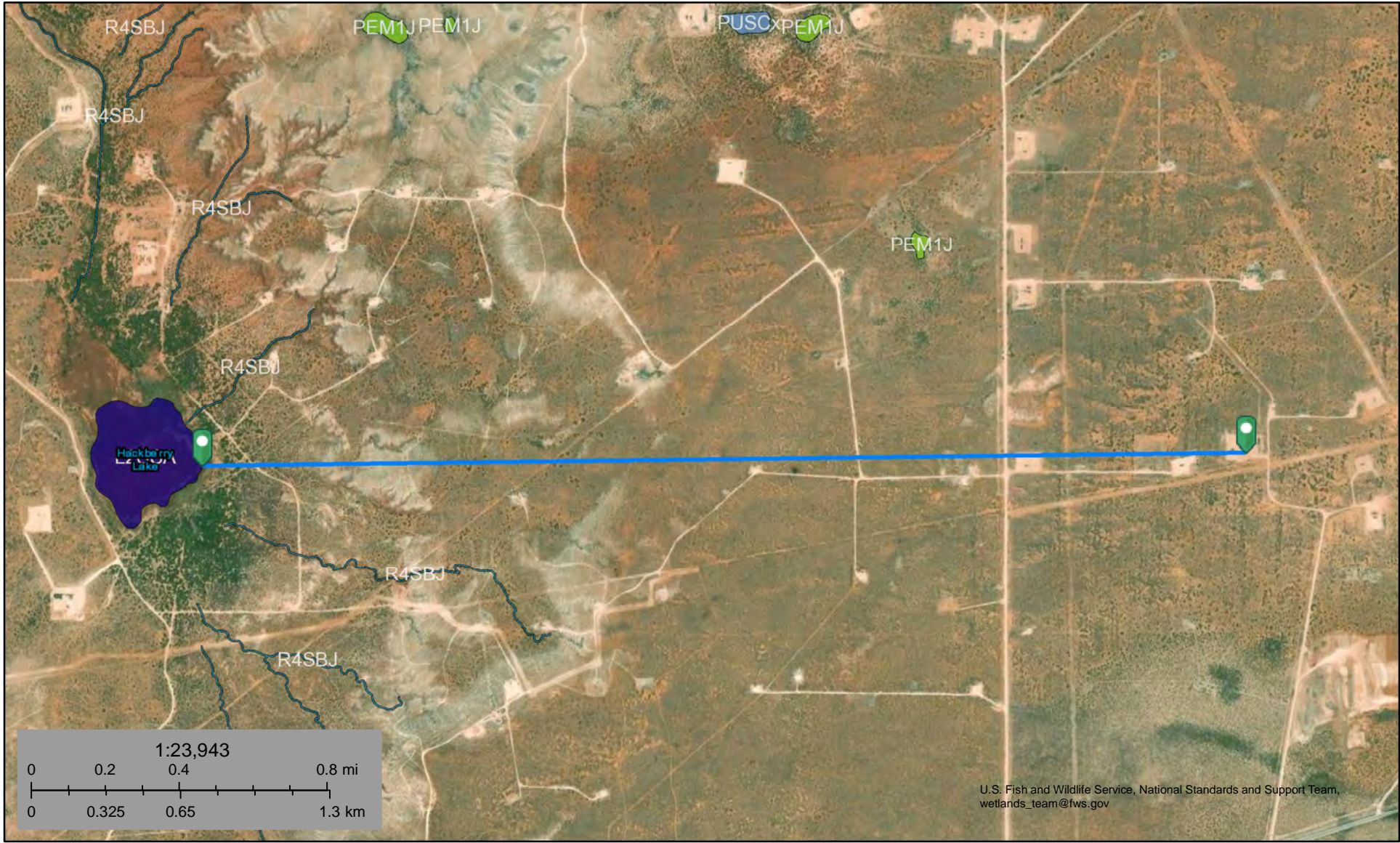
Wetlands

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

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.



Vega 29 Fed 1H_2H Battery Lake 12,578ft



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

January 28, 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.

Battery

Nearest Resident: 4,957ft (0.94mi)

Legend

- Release

32.63825633, -103.8904197



Hackberry Lake

Residence



Active & Inactive Points of Diversion (with Ownership Information)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)				(NAD83 UTM in meters)		Map	Distance		
											q64	q16	q4	Sec	Tws	Range			X	Y
CP 01941	CP	EXP	0.000	DEVON ENERGY	ED	CP 01941 POD1	NA			Shallow	SW	NE	NE	29	19S	31E	604524.2	3611512.8		497.6
CP 01943	CP	EXP	0.000	DEVON ENERGY	ED	CP 01943 POD1	NA				NW	SW	NW	20	19S	31E	603217.4	3612883.9		1,439.1
CP 00725	CP	PDL	3.000	G & L CATTLE, LLC	ED	CP 00725 POD1				Shallow	NW	SW	SW	28	19S	31E	604906.0	3610473.0 *		1,505.5
CP 01032	CP	STK	3.000	G & L CATTLE, LLC	ED	CP 01032 POD1					NE	NW	SE	19	19S	31E	602600.1	3612362.6		1,606.2
CP 00722	CP	COM	90.000	G & L CATTLE, LLC	LE	CP 00722 POD4	20C1A			Shallow	SE	SW	SW	28	19S	31E	605058.6	3610260.0		1,767.3
					LE	CP 00722 POD1	R			Shallow	SE	SW	SW	28	19S	31E	605106.0	3610273.0 *		1,783.5
CP 00724	CP	PLS	3.000	G & L CATTLE, LLC	LE	CP 00724 POD1					SE	SW	SW	28	19S	31E	605106.0	3610273.0 *		1,783.5
CP 01595	CP	PDL	3.000	SLASH X RANCH	LE	CP 00722 POD1				Shallow	SE	SW	SW	28	19S	31E	605106.0	3610273.0 *		1,783.5
CP 00723	CP	PDL	3.000	G & L CATTLE, LLC	ED	CP 00723 POD1				Shallow	NE	NW	NW	33	19S	31E	605111.0	3610071.0 *		1,954.5
CP 01034	CP	STK	3.000	G & L CATTLE, LLC	LE	CP 01034 POD1					NE	SE	NW	33	19S	31E	605588.0	3609738.9		2,499.3
CP 00722	CP	COM	90.000	G & L CATTLE, LLC	LE	CP 00722 POD3				Shallow	NE	SE	NW	33	19S	31E	605519.0	3609673.0 *		2,511.8
CP 01033	CP	STK	3.000	G & L CATTLE, LLC	LE	CP 01033 POD1					NE	SE	NW	33	19S	31E	605572.8	3609698.8		2,522.3
CP 02102	CP	EXP	0.000	DEVON ENERGY PRODUCTION CO LP	ED	CP 02102 POD1	NA				NW	NE	NW	19	19S	31E	602001.9	3613320.1		2,614.1
CP 00873	CP	PRO	0.000	SANTA FE ENERGY	LE	CP 00873 POD1				Shallow		NW	NW	19	19S	31E	601772.0	3613147.0 *		2,705.4
CP 01985	CP	MON	0.000	DEVON ENERGY RESOURCES	ED	CP 01985 POD1	NA				NE	SE	NE	17	19S	31E	604666.5	3614438.3		2,772.9
CP 00357	CP	SRO	48.000	GULF OIL CORPORATION	ED	CP 00357 POD3					NW	NE	SE	24	19S	30E	601276.0	3612437.0 *		2,888.1
CP 01094	CP	MON	0.000	CASCATA RESOURCES LLC	LE	CP 00362 POD1					NE	SW	NW	31	19S	31E	601956.5	3609605.7		3,000.1
CP 00829	CP	PLS	3.000	SNYDER RANCHES	LE	CP 00829 POD1				Shallow		NE	SE	16	19S	31E	606165.0	3614009.0 *		3,092.3
CP 01907	CP	MON	0.000	DEVON ENERGY	ED	CP 01907 POD1	NA				SE	NE	NE	18	19S	31E	603017.2	3614737.1		3,189.0
CP 00076	CP	OIL	70.000	FIRST INTERSTATE BANK OF LEA	LE	CP 00076 POD1					NW	NE		27	19S	31E	607404.0	3611611.0 *		3,330.1
CP 00079	CP	OIL	100.000	FIRST INTERSTATE BANK OF LEA	LE	CP 00079 POD1					NW	NE		27	19S	31E	607404.0	3611611.0 *		3,330.1
CP 00080	CP	OIL	100.000	FIRST INTERSTATE BANK	LE	CP 00080 POD1					NW	NE		27	19S	31E	607404.0	3611611.0 *		3,330.1
CP 01940	CP	EXP	0.000	DEVON ENERGY	ED	CP 01940 POD1	NA				SE	SE	SE	07	19S	31E	603004.2	3615030.5		3,471.1
CP 01554	CP	CPS	0.000	CENTRAL VALLEY ELECTRIC CO-OP	LE	CP 01554 POD2					NE	NE	NW	22	19S	31E	607165.4	3613322.3		3,476.1
					LE	CP 01554 POD1					NE	NE	NW	22	19S	31E	607165.6	3613354.6		3,491.2
CP 00357	CP	SRO	48.000	GULF OIL CORPORATION	ED	CP 00357 POD1				Shallow	SE	SE	NW	24	19S	30E	600667.0	3612631.0 *		3,526.3
CP 01864	CP	MON	0.000	XTO ENERGY INC	ED	CP 01864 POD1	NA				SE	NE	NW	34	19S	31E	607068.1	3609824.0		3,547.1
CP 02053	CP	SAN	1.000	FRONTIER FIELD SERVICES, LLC	ED	CP 02053 POD1	216DA				SE	NE	NE	16	19S	31E	606328.8	3614710.7		3,737.1
CP 00722	CP	COM	90.000	G & L CATTLE, LLC	ED	CP 00722 POD2				Shallow	NE	NW	NW	25	19S	30E	600276.0	36116200.0 *		3,801.6
CP 00357	CP	SRO	48.000	GULF OIL CORPORATION	ED	CP 00357 POD2				Shallow	SE	SW	NW	24	19S	30E	600265.0	3612627.0 *		3,915.4
CP 02011	CP	EXP	0.000	DEVON ENERGY CO.	ED	CP 02011 POD1	NA				SW	SW	SW	10	19S	31E	606373.4	3615144.8		4,116.5

Record Count: 31

Filters Applied:

UTM Filters (in meters):



Vega 29 Fed 1H_2H Battery Wetland 7,444ft



January 28, 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.

Vega 29 Fed 1H_2H Battery - Mine



1/28/2026, 1:27:17 PM

Registered Mines

Land Ownership

✕ Aggregate, Stone etc.

BLM

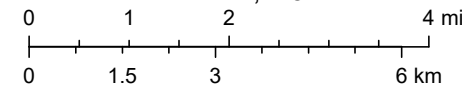
▲ Potash

P

S

PLSS Townships

1:144,448



U.S. BLM, Esri, NASA, NGA, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community,

EMNRD MMD GIS Coordinator

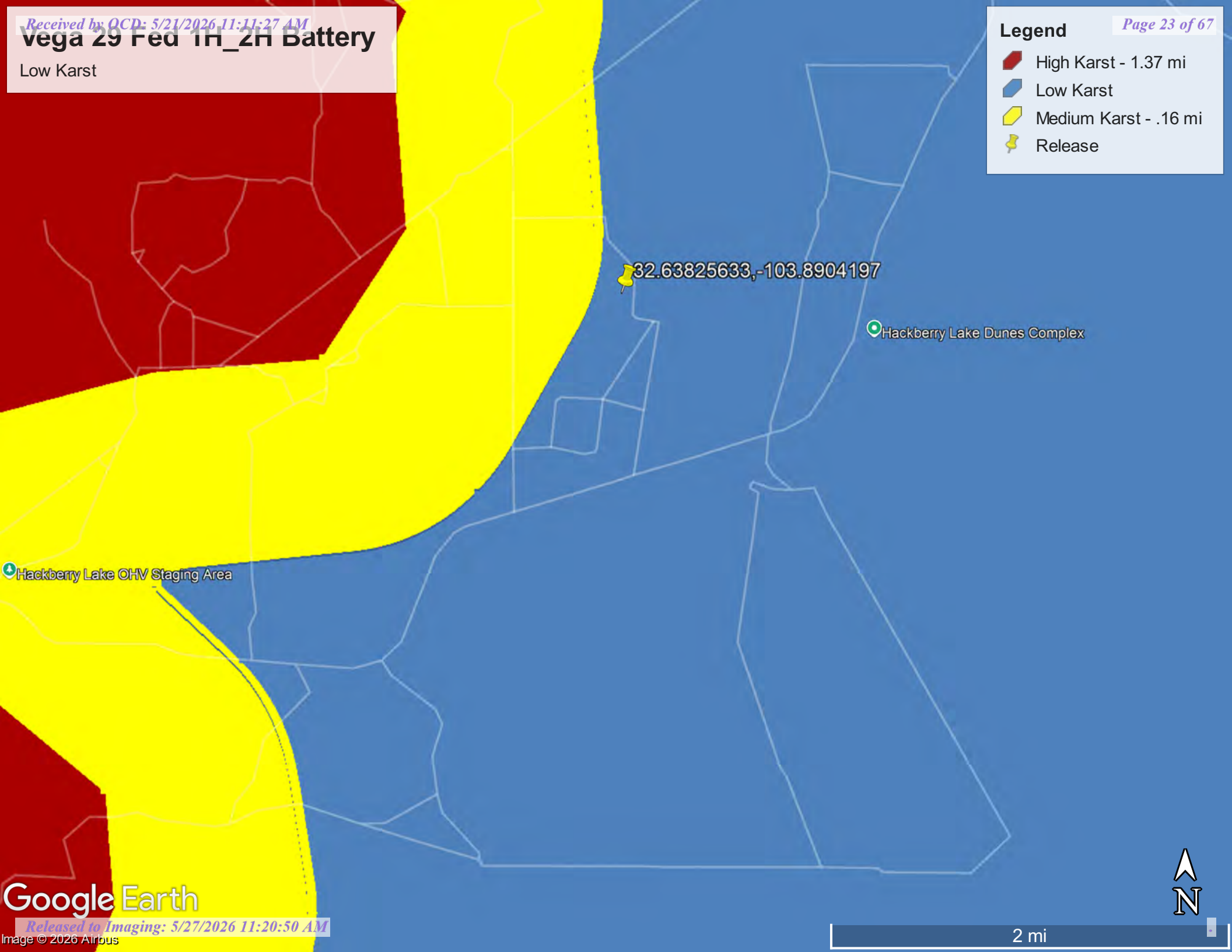
NM Energy, Minerals and Natural Resources Department (<http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795>)

Vega 29 Fed 1H_2H Battery

Low Karst

Legend

-  High Karst - 1.37 mi
-  Low Karst
-  Medium Karst - .16 mi
-  Release



32.63825633, -103.8904197

Hackberry Lake OHV Staging Area



Hackberry Lake Dunes Complex

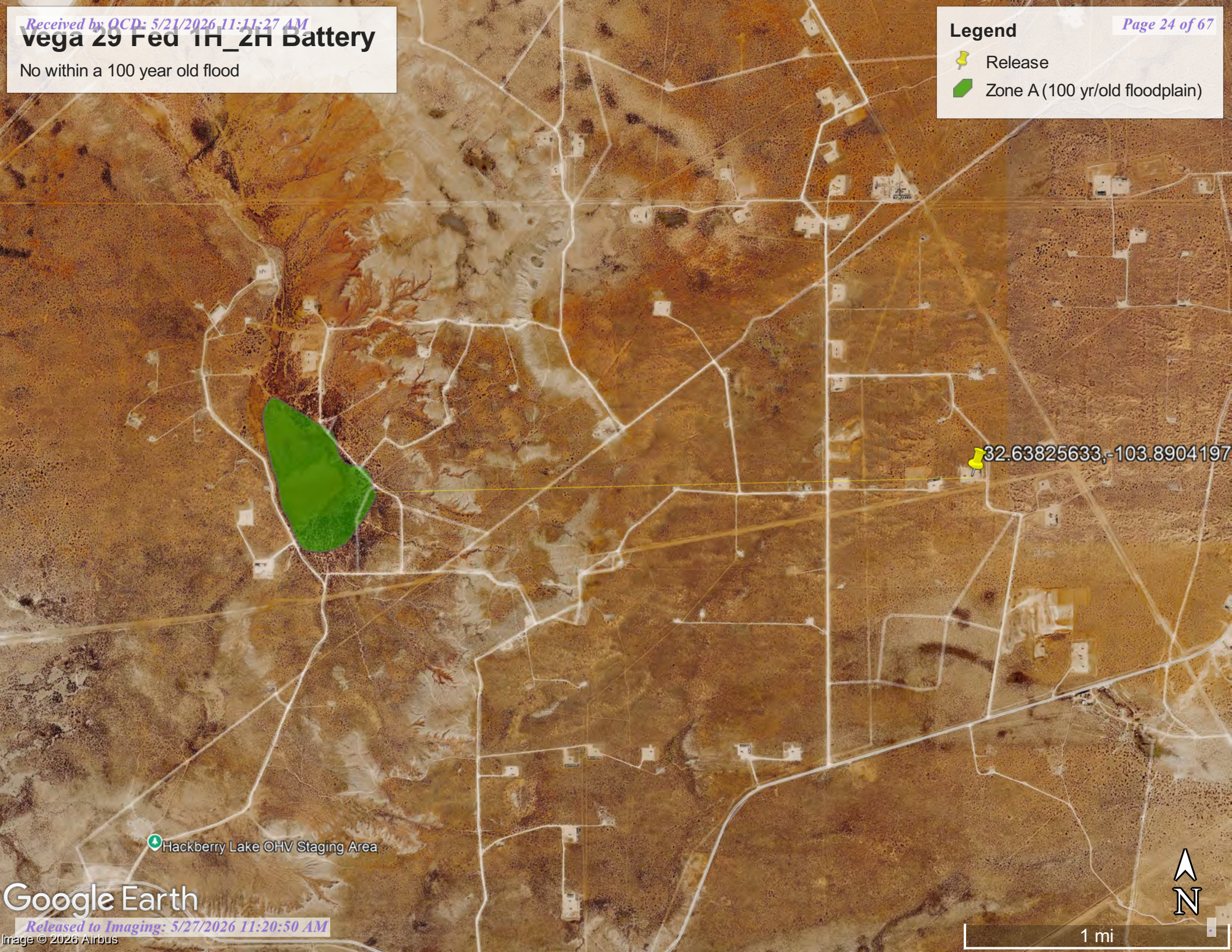



Vega 29 Fed 1H_2H Battery


No within a 100 year old flood

Legend

-  Release
-  Zone A (100 yr/old floodplain)



 32.63825633, -103.8904197

 Hackberry Lake OHV Staging Area





A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eddy Area, New Mexico



January 28, 2026

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

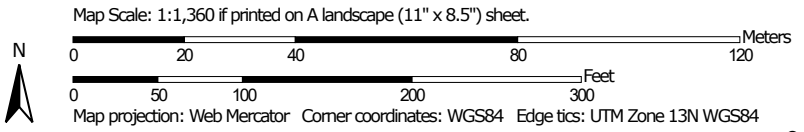
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


Custom Soil Resource Report Soil Map



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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.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	8.8	100.0%
Totals for Area of Interest		8.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

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Eddy Area, New Mexico**KM—Kermit-Berino fine sands, 0 to 3 percent slopes****Map Unit Setting**

National map unit symbol: 1w4q
Landscape: Uplands
Elevation: 3,100 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 50 percent
Berino and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit**Setting**

Landscape: Uplands
Landform: Alluvial fans, Valley plains
Landform position (three-dimensional): Talf, rise
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 7 inches: fine sand
H2 - 7 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD005NM - Deep Sand
Hydric soil rating: No

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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 50 inches: fine sandy loam
H3 - 50 to 58 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 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Active dune land

Percent of map unit: 15 percent
Hydric soil rating: No

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Ecological site R070BD005NM

Deep Sand

Accessed: 01/28/2026

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.

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on terraces, Piedmonts, dunes fields, or upland plains. Parent material consists of eolian deposits and alluvium derived from sandstone. Slopes range from 0 to 15 percent, usually less than 5 percent. Low, stabilized hummocks or dunes frequently occur. Elevations range from 2,842 to 4,500 feet.

Table 2. Representative physiographic features

Landforms	(1) Dune (2) Parna dune (3) Terrace
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–4,500 ft

Slope	0–15%
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 is in late March or early April, and the first killing frost is in late October or early November.

Both temperature and moisture favor warm season perennial plant growth. During years of abundant winter and early spring moisture, cool season growth and annual forbs, make up an important component of this site. Strong winds blow from the west 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)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

Influencing water features

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

Soil features

Soils are deep or very deep. Surface textures are sand loam, fine sand or loamy fine sand, Underlying material textures are loamy fine sand, fine sand, sand or fine sandy loam.

Because of the coarse textures and rapid drying of the surface, the soil, if unprotected by plant cover and organic residue, becomes windblown and low hummocks or dunes are formed around shrubs.

Characteristic soils are:

Anthony
Aguena
Kermit
Likes
Pintura
Bluepoint

Table 4. Representative soil features

Surface texture	(1) Sand (2) Fine sand (3) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to excessively drained
Permeability class	Moderate to very rapid
Soil depth	60–72 in
Surface fragment cover ≤3"	0–5%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	3–5 in
Calcium carbonate equivalent (0-40in)	5–15%
Electrical conductivity (0-40in)	0–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0–2
Soil reaction (1:1 water) (0-40in)	6.6–7.8
Subsurface fragment volume ≤3" (Depth not specified)	5–10%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

Overview

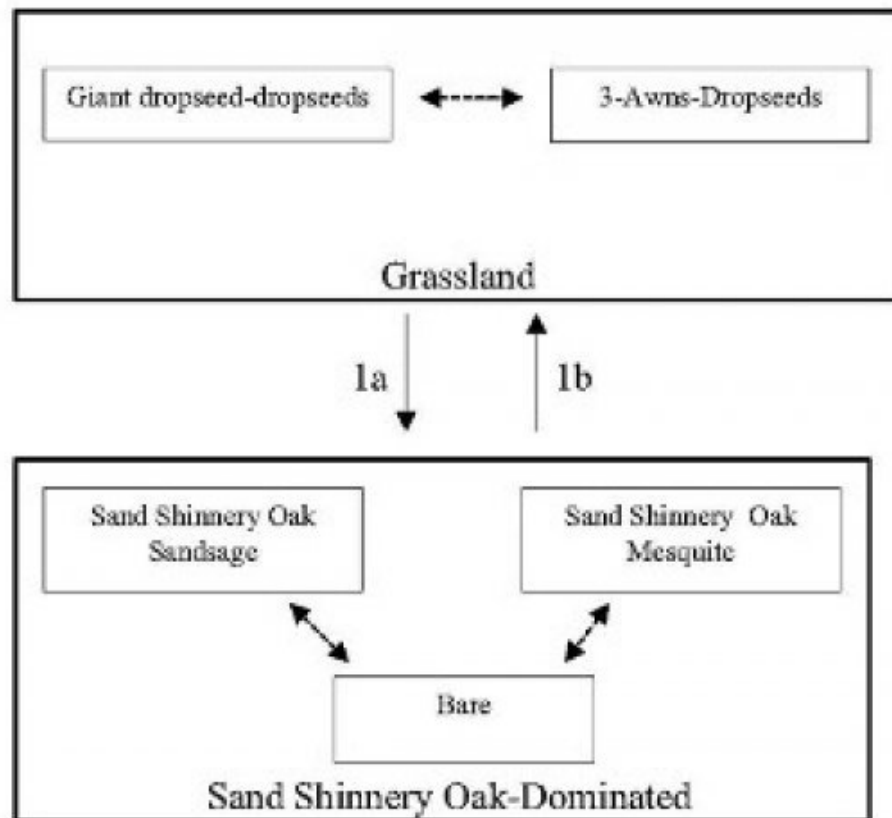
The Deep Sand site occurs adjacent to and/or intergraded with the Sandhills and Sandy sites (SD-3). The Deep Sand site can be distinguished by slopes less than eight percent

(approximately five percent) and textural changes at depths greater than 40 inches. The Deep Sand site has well drained soils with a surface texture of sand or loamy fine sand. The Sandhills site has slopes greater than eight percent and textural depths greater than 60 inches. Conversely, the Sandy site has slopes less than five percent and depths to textural change commonly around 20 inches. The historic plant community of the Deep Sand site is dominated primarily by giant dropseed (*Sporobolus giganteus*) and other dropseeds (*S. flexuosus*, *S. contractus*, *S. cryptandrus*), with scattered shinnery oak (*Quercus havardii*) and soapweed yucca (*Yucca glauca*). Other herbaceous species include threeawns (*Aristida* spp.), bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), and annual and perennial forbs distributed relative to precipitation occurrences. Bare ground and litter compose a significant proportion of ground cover while grasses are the remainder. Shinnery oak will increase with an associated decrease in dropseed and bluestem abundance possibly due to climatic change, fire suppression, interspecific competition, and excessive grazing. Continued grass cover loss may result in a transition to a shinnery oak dominated state with increases in sand sage (*Artemisia filifolia*) and honey mesquite (*Prosopis glandulosa*). However, brush management may restore the grassland component and reverse the shinnery oak state back toward the historic plant community.

State and transition model

Plant Communities and Transitional Pathways (diagram)

MLRA-42, SD-3, Deep Sand



1.a Climate, fire suppression, competition, over grazing

1.b Brush control, Prescribed grazing

State 1

Historic Climax Plant Community

Community 1.1

Historic Climax Plant Community

State Containing Historic Plant Community Grassland: The historic plant community is dominated by giant dropseed, other dropseeds, threeawns, and bluestems. Dominant woody plants include shinnery oak and soapweed yucca. Forb abundance and distribution varies and is dependent on annual rainfall. The Deep Sand site typically exists in sandy plains and dunes (Sosebee 1983). Grass dominance stabilizes the potentially erosive sandy soils. Historical fire suppression, however, may have contributed to increased woody plant abundance, which has reduced grass species. Further, drought conditions compounded with excessive grazing likely has driven most grass species out of competition with shrubs which has resulted in a shinnery oak dominated state with sand sage and mesquite (Young et al. 1948). Diagnosis: Grassland dominated by dropseeds, threeawns, and bluestems. Small shrubs, such as shinnery oak and soapweed yucca, and subshrubs are dispersed throughout the grassland. Other grasses that could appear on this site would include: flatsedge, almejita signalgrass, big bluestem, Indiangrass, fall witchgrass, hairy grama and red lovegrass Other shrubs include: fourwing saltbush, mesquite, ephedra and broom snakeweed. Other forbs include: wooly and scarlet gaura, wooly dalea, phlox heliotrope, scorpionweed, deerstongue, fleabane, nama, hoffmanseggia, lemon beebalm and stickleaf.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	396	858	1320
Shrub/Vine	108	234	360
Forb	96	208	320
Total	600	1300	2000

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	15-20%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	35-40%
Surface fragments >0.25" and <=3"	0%

Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	35-40%

Figure 5. Plant community growth curve (percent production by month).
 NM2805, HCPC. SD-3 Deep Sand - Warm season plant community .

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	3	5	10	10	25	30	12	5	0	0

State 2 Shinnery Oak Dominated

Community 2.1 Shinnery Oak Dominated

Shinnery oak-Dominated



- Shinnery oak and sand sage
- Large bare patches and soil blowouts in adjacent sandhills
- Extensive rhizomes reduce soil erosion
- Roswell series
- Sand bluestem, threecone, giant cactus, spike dropseed, Hall's panicum, little bluestem

Shinnery oak-Dominated



- Feather dalea, mesquite, Shinnery oak, bush muhly, four-wing saltbush, jewellina bush, and sand sage
- Pintura series loamy fine sand

Shinnery oak-Dominated



- Shinnery oak and dropseeds
- Grass cover minimizes bare patches and erosion

Shinnery Oak Dominated: This state is dominated by shinnery oak with subdominants of sand sage or mesquite. Bare ground is a significant component in this state as well. Shinnery oak is characterized by dense stands in sandy soils; however, as clay percentage increases, shinnery oak decreases. Shinnery oak abundance and distribution increase with disturbances, such as excessive grazing and fire, due to an aggressive rhizome system. As shinnery oak abundance increases, an associated increase of mesquite, sand sage, and soapweed yucca also occurs. Shinnery oak's extensive root system allows the oak to competitively exclude grasses and forbs. Sand sage, however, stabilizes light sandy soils from wind erosion and can co-exist with herbaceous species by protecting them in heavily grazed conditions (Davis and Bonham 1979). Shinnery oak has been found primarily in very deep, excessively drained, and rapidly permeable soils. Shinnery oak is associated with landforms which are gently undulating to rolling uplands, very gently sloping to moderately steep slopes, and upland plains, alluvial fans and valley sideslopes. Shinnery oak and sand sage can be controlled with herbicide if applied in the spring with a subsequent rest from grazing (Herbel et al. 1979, Pettit 1986). In addition, repetitive seasons of goat browsing can also reduce shinnery oak abundance. Patches should be maintained during brush control, however, to prevent erosion and to provide wildlife cover and forage. Further, as shinnery oak and other shrubs increase, bare patches and erosion will increase due to a lack of herbaceous ground cover. **Diagnosis:** Shinnery oak dominated with subdominant sand sage, honey mesquite, and soapweed yucca with increasing frequency and size of bare patches. **Transition to Shinnery oak dominated state (1a):** The historic plant community begins to shift toward the shinnery oak dominated state as drivers such as climate change, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by an increase of shrub species abundance and bare patch expansion. **Key indicators of approach to transition:** • Loss of grass and forb cover • Surface soil erosion • Bare patch expansion • Increased shrub species abundance and composition **Transition to Historic Plant Community (1b):** The shinnery oak dominated state may transition back toward the historic plant community as new drivers are introduced such as prescribed grazing, brush control, and discontinued drought conditions.

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					
1	Warm Season			450–585	
	spike dropseed	SPCO4	<i>Sporobolus contractus</i>	450–585	–
	sand dropseed	SPCR	<i>Sporobolus cryptandrus</i>	450–585	–
	mesa dropseed	SPFL2	<i>Sporobolus flexuosus</i>	450–585	–

	giant dropseed	SPGI	<i>Sporobolus giganteus</i>	450–585	–
2	Warm Season			65–104	
	sand bluestem	ANHA	<i>Andropogon hallii</i>	65–104	–
	little bluestem	SCSC	<i>Schizachyrium scoparium</i>	65–104	–
3	Warm Season			39–91	
	threeawn	ARIST	<i>Aristida</i>	39–91	–
4	Warm Season			13–39	
	thin paspalum	PASE5	<i>Paspalum setaceum</i>	13–39	–
5	Warm Season			13–39	
	black grama	BOER4	<i>Bouteloua eriopoda</i>	13–39	–
6	Warm Season			13–39	
	mat sandbur	CELO3	<i>Cenchrus longispinus</i>	13–39	–
7	Warm Season			13–39	
	Havard's panicgrass	PAHA2	<i>Panicum havardii</i>	13–39	–
8	Warm Season			13–65	
	plains bristlegrass	SEVU2	<i>Setaria vulpiseta</i>	13–65	–
9	Other Annual Grasses			13–65	
	Grass, annual	2GA	<i>Grass, annual</i>	13–65	–
Shrub/Vine					
10	Shrub			65–130	
	Havard oak	QUHA3	<i>Quercus havardii</i>	65–130	–
11	Shrub			13–39	
	sand sagebrush	ARFI2	<i>Artemisia filifolia</i>	13–39	–
12	Shrub			65–130	
	yucca	YUCCA	<i>Yucca</i>	65–130	–
13	Shrub			13–39	
	rabbitbrush	CHRY9	<i>Chrysothamnus</i>	13–39	–
14	Other Shrubs			13–39	
	Shrub (>.5m)	2SHRUB	<i>Shrub (>.5m)</i>	13–39	–
Forb					
15	Forb			39–91	
	croton	CROTO	<i>Croton</i>	39–91	–
	Indian blanket	GAPU	<i>Gaillardia pulchella</i>	39–91	–

16	Forb			39–91	
	aster	ASTER	<i>Aster</i>	39–91	–
	whitest evening primrose	OEAL	<i>Oenothera albicaulis</i>	39–91	–
	beardtongue	PENST	<i>Penstemon</i>	39–91	–
17	Forb			39–91	
	touristplant	DIWI2	<i>Dimorphocarpa wislizeni</i>	39–91	–
	buckwheat	ERIOG	<i>Eriogonum</i>	39–91	–
	sunflower	HELIA3	<i>Helianthus</i>	39–91	–
	spiny false fiddleleaf	HYSP	<i>Hydrolea spinosa</i>	39–91	–
	threadleaf ragwort	SEFLF	<i>Senecio flaccidus</i> var. <i>flaccidus</i>	39–91	–
18	Other Forbs			13–65	
	Forb (herbaceous, not grass nor grass-like)	2FORB	<i>Forb (herbaceous, not grass nor grass-like)</i>	13–65	–

Animal community

This site provides habitat which supports a resident animal population characterized by pronghorn, antelope, black-tailed jackrabbit, spotted ground squirrel, Ord's kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, meadowlark, roadrunner, white-necked raven, cactus wren, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake and ornate box turtle. In the area called Mescalero Sands, there are white-tailed and mule deer.

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

Anthony B

Bluepoint A

Kermit A

Aguena A

Likes A

Pintura A

Recreational uses

This site offers limited recreation potential for hiking, horseback riding, nature observation

and photography; game bird, predator, antelope, and deer hunting.

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 during all seasons of the year. Shinnery oak is toxic in the late bud or early leaf stage. Shinnery oak will increase, as will sand sagebrush following drought. Changes in the fire return interval have also favored an increase in shrub cover. The dropseeds and bluestem will decrease. This site responds very well to brush management and deferment. This site is well suited to a grazing system that rotates the season of use. Nesting habitat for lesser prairie chicken can be improved by providing residual cover that is at least 14 inches high.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index Ac/AUM

100 - 76 2.0 – 3.8

75 – 51 3.0 – 6.0

50 – 26 5.0 – 10.0

25 – 0 10.1 +

Inventory data references

Other 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

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.

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.

Sosebee, Ronald E. 1983. Physiological, phenological, and environmental considerations in brush and weed control. In: McDaniel, Kirk C., ed. Proceedings--brush management symposium; 1983 February 16; Albuquerque, NM. Denver, CO: Society for Range Management: 27-43.

Young, Vernon A., Anderwald, Frank R., McCully, Wayne G. 1948. Brush problems on Texas ranges. Miscellaneous Publication 21. College Station, TX: Texas Agricultural Experiment Station. 19 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:**
-



APPENDIX B – Daily Field Report



Daily Field Log

Site: Vega 29 Fed 1H_2H Battery

05/08/2026

Location: 32.638365, -103.889872

By: Katrina Taylor

Weather	Cool Sunny	Contractor	
Staff On-site	Katrina Taylor	Contractor Crew	
Staff From Time	08:55	Equipment On Site	
Tailgate meeting conducted	Yes	Incident ID Number	nAPP2602836374

Work Summary:

Conduct a Liner Inspection

Time Observations

09:16:53	Prior to the inspection taking place the liner was power washed and a 48hr notice was given to the division. All gravel, mud, trash, salt and brush was removed.
09:20:04	Vertex as the responsible party on behalf of Devon conducted the liner inspection assessing that it was free of any rips, tears, holes, or other admoralities that would violate liner integrity
09:21:40	Photographs are included that demonstrate the clean intact the liner in support of Vertex's assessment that the liner has integrity and as such no further work is required.
09:33:06	The base and walls of the liners were carefully inspected for any violations to liner integrity with none being found

Pictures/Attachments

Date: 5/8/2026
 Time: 08:56
 Notes: Photograph of the site placard
 Latitude: 32.63806388888889
 Longitude: -103.88960277777778
 Direction: N





Daily Field Log
Site: Vega 29 Fed 1H_2H Battery

Pictures/Attachments

Date: 5/8/2026
 Time: 09:24
 Notes: The western side of the southern 1/2 of the liner is free of any rips, tears, or holes
 Latitude: 32.65063611111111
 Longitude: -103.88666388888889
 Direction: SE



Date: 5/8/2026
 Time: 09:26
 Notes: The eastern side of the southern half of the liner is free of any rips tears or holes
 Latitude: 32.63829444444444
 Longitude: -103.88984722222223
 Direction: E





Daily Field Log
Site: Vega 29 Fed 1H_2H Battery

Pictures/Attachments

Date: 5/8/2026
 Time: 09:26
 Notes: The southern most part of the liner is free from any rips tears or holes
 Latitude: 32.638186111111111
 Longitude: -103.88986111111112
 Direction: N



Date: 5/8/2026
 Time: 09:28
 Notes: The center of the liner where a tank appears to be removed is free of any rips tears or holes. The discoloration is not sediment or salt, but rather staining left over from removed equipment. The discolored area was carefully inspected for any weaknesses and none were present
 Latitude: 32.638344444444444
 Longitude: -103.88997777777779
 Direction: N





Daily Field Log
Site: Vega 29 Fed 1H_2H Battery

Pictures/Attachments

Date: 5/8/2026
 Time: 09:30
 Notes: The northeastern area is free of any holes, tears, or gashes
 Latitude: 32.63848611111111
 Longitude: -103.88979444444445
 Direction: W



Date: 5/8/2026
 Time: 09:31
 Notes: The northern most area of the liner is free of any tears, holes, or gashes
 Latitude: 32.63849722222222
 Longitude: -103.88980833333333
 Direction: SW

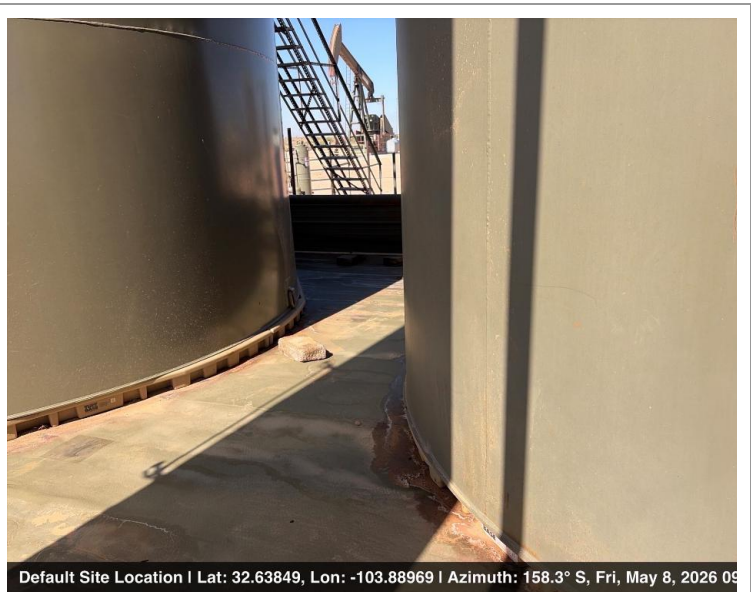




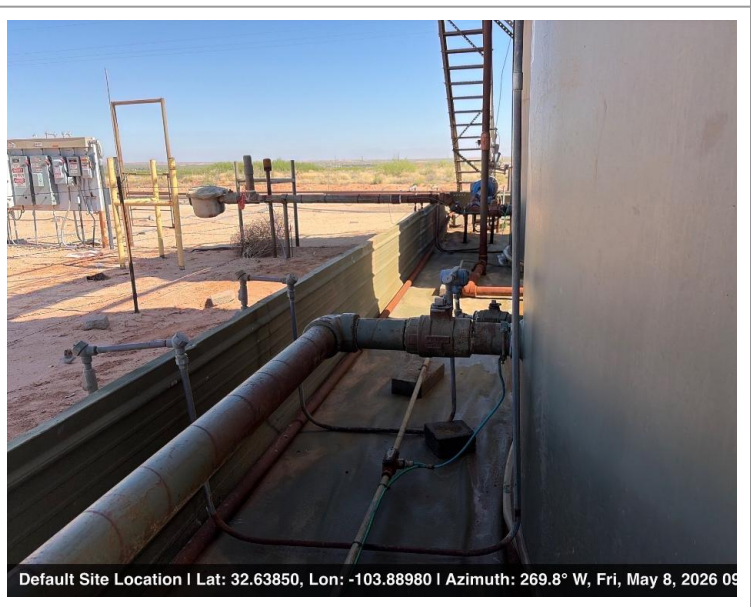
Daily Field Log
Site: Vega 29 Fed 1H_2H Battery

Pictures/Attachments

Date: 5/8/2026
 Time: 09:31
 Notes: The area between the tanks is free of any holes, tears, or gashes
 Latitude: 32.63848888888889
 Longitude: -103.88969444444444
 Direction: S



Date: 5/8/2026
 Time: 09:33
 Notes: Northwestern area of the liner is free of any holes, rips, or tears
 Latitude: 32.6385
 Longitude: -103.88980277777779
 Direction: W



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

QUESTIONS

Action 587402

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 587402
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2602836374
Incident Name	NAPP2602836374 VEGA 29 FED 1H_2H BATTERY @ FAPP2130651847
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2130651847] VEGA 29 FED 1H_2H BATTERY

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	VEGA 29 FED 1H_2H BATTERY
Date Release Discovered	01/26/2026
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 Dump Line Produced Water Released: 99 BBL Recovered: 99 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)	Nipple froze on line allowing fluids to be released to lined secondary containment.

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QUESTIONS, Page 2

Action 587402

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 587402
	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: 05/21/2026
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QUESTIONS, Page 4

Action 587402

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 587402
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)

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

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

(Select all answers below that apply.)

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.

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: James Raley Title: EHS Professional Email: jim.raley@dvsn.com Date: 05/21/2026
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 6

Action 587402

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 587402
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Liner Inspection Information	
Last liner inspection notification (C-141L) recorded	582284
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	05/08/2026
Was all the impacted materials removed from the liner	Yes
What was the liner inspection surface area in square feet	4427

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	4427
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@dmv.com Date: 05/21/2026
--	--



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Please restart your browser and try to complete this action again. If you continue to experience this issue please contact an OCD representative.

Thank you.



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