



November 17, 2020

Vertex Project #: 20E-00141-064

**Spill Closure Report:** Rio Blanco 33 Fed 1  
Unit N, Section 33, Township 22 South, Range 34 East  
County: Lea  
Incident Tracking Number: NJXK1619637333

**Prepared For:** Devon Energy Production Company  
6488 Seven Rivers Highway  
Artesia, New Mexico 88210

**New Mexico Oil Conservation Division – District 1 – Hobbs**

1625 North French Drive  
Hobbs, New Mexico 88240

Devon Energy Production Company (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a spill assessment and liner inspection following a produced water release that occurred on November 3, 2012, at Rio Blanco 33 Fed 1, API 30-025-36359 (hereafter referred to as “Rio Blanco 33”). Devon provided immediate notification of the release to New Mexico Oil Conservation Division (NM OCD) District 1, followed by submission of an initial C-141 Release Notification on November 6, 2012 (Attachment 1). The NM OCD incident tracking number assigned to this release is NJXK1619637333.

This letter provides a description of the release assessment and liner inspection, and demonstrates that closure criteria established in 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) have been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NM OCD for closure of this release.

**Incident Description**

On November 3, 2012, a release occurred at Devon’s Rio Blanco 33 site due to a water tank overflow. This incident resulted in the release of approximately 290 barrels (bbls) of produced water into the lined secondary containment. Upon discovery of the release, the well was shut in and a hydrovac truck was dispatched to the site to recover all free-standing liquids. Approximately 290 bbls of produced water were recovered from the secondary containment and removed for disposal off-site. All fluids were contained within the lined Spill Prevention Control and Countermeasures containment; no produced water was released into undisturbed areas or waterways.

**Site Characterization**

The release at Rio Blanco 33 occurred on privately-owned land, N 32.3436928, W 103.4783325, approximately 23 miles northwest of Jal, New Mexico. The legal description for the site is Unit N, Section 33, Township 22 South, Range 34 East, Lea County, New Mexico. This location is within the Permian Basin in southeast New Mexico and has historically been used for oil and gas exploration and production, and rangeland. An aerial photograph and site schematic are included in Attachment 2.

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3101 Boyd Drive, Carlsbad, New Mexico 88220, USA | P 575.725.5001

Rio Blanco 33 is typical of oil and gas exploration and production sites in the western portion of the Permian Basin, and is currently used for oil and gas production, and storage. The following sections specifically describe the area surrounding Rio Blanco 33.

The surrounding landscape is associated with sand dunes or hillslope land forms generally found on plains at elevations between 3,000 and 4,400 feet above sea level. The climate is semi-arid, with average annual precipitation ranging between 10 and 15 inches. The historic plant community has been a mixture of grasses, shrubs and forbs, with tall grasses dominating in aspect. Sand bluestem and giant dropseed are the dominant grass species, and sand shinnery oak and soapweed yucca the dominant shrubs. Grass cover is variable due to shifting sands and large, irregular dunes; while grass cover is not continuous, it is fairly uniform across the more stable areas. Large natural bare areas or blowouts are a common feature in the less stable areas (United States Department of Agriculture, Natural Resources Conservation Service, 2020). Limited to no vegetation is allowed to grow on the compacted wellpad.

*The Geological Map of New Mexico* indicates the surface geology at Rio Blanco 33 is comprised of Qep – interlaid eolian sands and piedmont-slope deposits from the Holocene to middle Pleistocene ages (New Mexico Bureau of Geology and Mineral Resources, 2020). The Natural Resources Conservation Service Web Soil Survey characterizes the soil at the site as Kermit soils and dune land, distinguished by deep layers of fine sand with steeper than average slope. These types of soils tend to be excessively-drained with very low runoff and low available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2020). There is low potential for karst geology to be present near Rio Blanco 33 (United States Department of the Interior, Bureau of Land Management, 2020).

There is no surface water located at Rio Blanco 33. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream, located approximately 1.4 miles west of the site (United States Fish and Wildlife Service, 2020). At Rio Blanco 33, there are no continuously flowing watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features nearby as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest recent groundwater well to the release is a 2020 New Mexico Office of the State Engineer-identified well, located approximately 0.54 miles northwest of the site, with a depth to groundwater of 282 feet below ground surface (bgs; New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2020). Documentation pertaining to site characterization and depth to groundwater determination is included in Attachment 3.

## Closure Criteria Determination

Using site characterization information, a closure criteria determination worksheet (Attachment 3) was completed to determine if the release would be subject to any of the special case scenarios outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC, if the release had escaped secondary containment.

Based on data included in the closure criteria determination worksheet, the release at Rio Blanco 33 would not be subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC. The closure criteria for the site would be determined to be associated with the following constituent concentration limits based on depth to groundwater.

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Devon Energy Production Company  
Rio Blanco 33 Fed 1

2020 Spill Assessment and Closure  
November 2020

Depth to Groundwater	Constituent	Limit
> 100 feet	Chloride	20,000 mg/kg
	TPH <sup>1</sup> (GRO + DRO + MRO)	2,500 mg/kg
	GRO + DRO	1,000 mg/kg
	BTEX <sup>2</sup>	50 mg/kg
	Benzene	10 mg/kg

<sup>1</sup>Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)

<sup>2</sup>Benzene, toluene, ethylbenzene and xylenes (BTEX)

## Liner Inspection

On September 29, 2020, Vertex provided 48-hour notification of the liner inspection to NM OCD, as required by Subparagraph (a) of Paragraph (5) of Subsection A 19.15.29.11 NMAC (Attachment 4). On October 2, 2020, Vertex conducted a visual inspection of the production equipment secondary containment liner for cracks, tears, cuts and other signs of damage to verify that the liner remained intact and had the ability to contain the release. The Daily Field Report (DFR) associated with the inspection is included in Attachment 5.

## Closure Request

Vertex recommends no remediation action to address the release at Rio Blanco 33. The secondary containment liner appeared to be intact and had the ability to contain the release, as shown in the inspection photographs included with the DFR (Attachment 5). There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

Vertex requests that incident NJXK1619637333 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 the attachments is correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NM OCD requirements to obtain closure on the November 3, 2012, release at Rio Blanco 33.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 505.506.0040 or [ngordon@vertex.ca](mailto:ngordon@vertex.ca).

Sincerely,



Natalie Gordon  
PROJECT MANAGER

[vertex.ca](http://vertex.ca)

3101 Boyd Drive, Carlsbad, New Mexico 88220, USA | P 575.725.5001

**Devon Energy Production Company**  
Rio Blanco 33 Fed 1

**2020 Spill Assessment and Closure**  
November 2020

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## **Attachments**

- Attachment 1. NM OCD C-141 Report
- Attachment 2. Site Schematic
- Attachment 3. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
- Attachment 4. Required 48-hr Notification of Liner Inspection to Regulatory Agencies
- Attachment 5. Daily Field Report(s) with Photographs

Devon Energy Production Company  
Rio Blanco 33 Fed 1

2020 Spill Assessment and Closure  
November 2020

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## References

New Mexico Bureau of Geology and Mineral Resources. (2020). *Interactive Geologic Map of New Mexico*. Retrieved from <http://geoinfo.nmt.edu>

New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2020). *Water Column/Average Depth to Water Report*. Retrieved from <http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.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. (2020). *Web Soil Survey*. Retrieved from <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

United States Department of the Interior, Bureau of Land Management. (2020). *New Mexico Caves/Karsts*. Retrieved from <https://www.blm.gov/programs/recreation/recreation-programs/caves/new-mexico>

United States Fish and Wildlife Service. (2020). *National Wetlands Inventory*. Retrieved from <https://www.fws.gov/wetlands/data/Mapper.html>

## Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company (Devon). This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, 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.

## **ATTACHMENT 1**

HOBBS OCD

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88211  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised March 17, 1999

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

NOV 07 2012

RECEIVED

Release Notification and Corrective Action

OPERATOR

Initial Report  Final Report

Name of Company Devon Energy	Contact Tracy Kidd
Address P. O. Box 250 Artesia, NM 88211	Telephone No. 575-748-0189
Facility Name Rio Blanco #33 Federal #1	Facility Type Gas Well

Surface Owner	Mineral Owner	Lease No.
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LOCATION OF RELEASE

30 025 36359

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	33	22S	34E	1000	South	1620	West	Lea

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 290 bbls	Volume Recovered 290 bbls
Source of Release Overflowed Tank	Date and Hour of Occurrence 11/3/12, 8:45AM	Date and Hour of Discovery 11/3/12, 8:45AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

N/A

Describe Cause of Problem and Remedial Action Taken.\* At the Red Bull 31 Battery, the contract pumper noticed the tank running over into the lined containment causing a spill of 290 barrels of produced water, no alarm was given due to a scada upgrade.

Describe Area Affected and Cleanup Action Taken.\* At the Red Bull 31 Battery, the contract pumper noticed the tank running over into the lined containment causing a spill of 290 barrels of produced water, no alarm was given due to a scada upgrade. Contract pumper immediately notified a vacuum truck to recover all 290 barrels of fluid.

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

Signature: <i>Graciela C. Bustamante</i>	<p>OIL CONSERVATION DIVISION</p> <p>Appro</p> <p><b>APPROVED</b></p> <p>Appro</p> <p>Conditions of Approval: _____</p>
Printed Name: Graciela C. Bustamante	
Title: Field Adm. Support	
Date: 11/06/12 Phone: (575) 746-5561	

9/1/16

\* Attach Additional Sheets If Necessary

128-4322

Incident ID	NJXK1619637333
District RP	1RP-4322
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	282 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico  
Oil Conservation Division

Incident ID	NJXK1619637333
District RP	1RP-4322
Facility ID	
Application ID	

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

Printed Name: Tom Bynum Title: EHS Consultant  
 Signature: *Tom Bynum* Date: 11/19/2020  
 email: tom.bynum@dvn.com Telephone: 575-748-2663

**OCD Only**

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

State of New Mexico  
Oil Conservation Division

Page 6

Incident ID	NJXK1619637333
District RP	1RP-4322
Facility ID	
Application ID	

### Closure

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

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

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

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

Printed Name: Tom Bynum Title: EHS Consultant  
 Signature: *Tom Bynum* Date: 11/19/2020  
 email: tom.bynum@dvn.com Telephone: 575-748-2663

**OCD Only**

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

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: *Ashley Maxwell* Date: 1/20/2023  
 Printed Name: Ashley Maxwell Title: Environmental Specialist

## **ATTACHMENT 2**



 Approximate Lease Boundary     
  Containment  
 Approximate Spill Extent ( ~ 2,460 sq.ft. )



0 25 50 100 ft  
 Map Center:  
 Lat/Long: 32.344, -103.478

NAD 1983 UTM Zone 13N  
 Date: Sep 29/20



**Site Schematic**  
**Rio Blanco 33 Fed 1**

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.

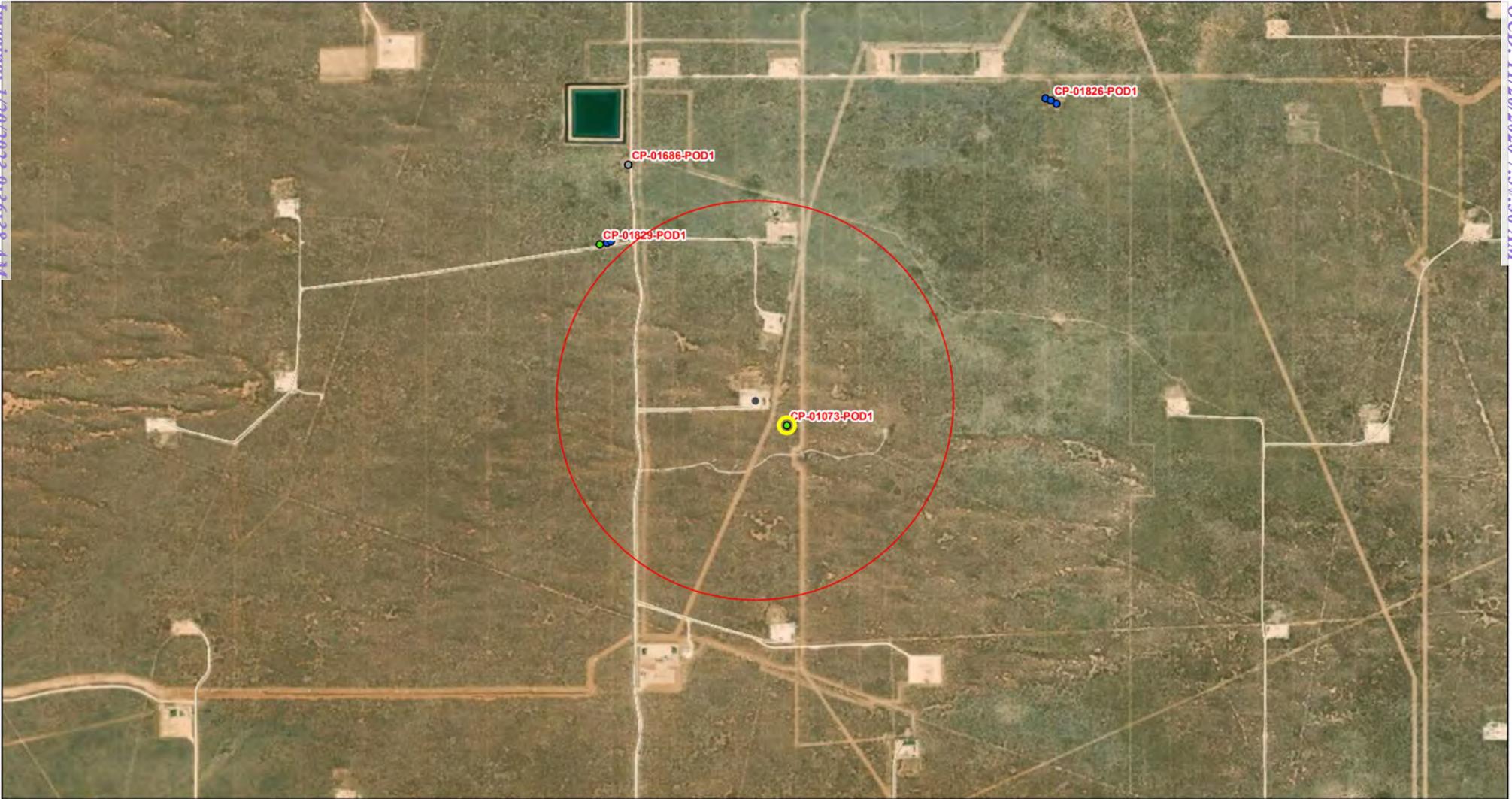
Note: Imagery from ESRI, 2018.

VERSATILITY. EXPERTISE.

## **ATTACHMENT 3**

Closure Criteria Worksheet			
Site Name: Rio Blanco 33 Fed 1			
Spill Coordinates:		X: 32.34370	Y: -103.47834
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	282	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	>1000	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	>1000	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	>1000	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	>1000	feet
	ii) Within 1000 feet of any fresh water well or spring	>1000	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	(Y/N)
7	Within 300 feet of a wetland	>1000	feet
8	Within the area overlying a subsurface mine		(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain		year
11	Soil Type	permit soils and dune land	
12	Ecological Classification	Sandhills	
13	Geology	Qep	
<b>NMAC 19.15.29.12 E (Table 1) Closure Criteria</b>		<50'	<50' 51-100' >100'

# Rio Blanco 33 Fed 1

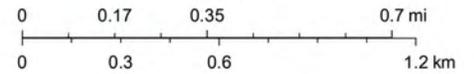


10/12/2020, 12:14:01 PM

GIS WATERS PODs

- Active
- Pending
- Incomplete
- OSE District Boundary
- ▤ Site Boundaries

1:18,056



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
NA	CP 01705 POD1	4	4	2	32	22S	34E	642588	3580179

<b>Driller License:</b> 1058	<b>Driller Company:</b> KEY'S DRILLING & PUMP SERVICE	
<b>Driller Name:</b> KEY, CASEY		
<b>Drill Start Date:</b> 04/02/2018	<b>Drill Finish Date:</b> 05/01/2018	<b>Plug Date:</b>
<b>Log File Date:</b> 05/23/2018	<b>PCW Rev Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 350 GPM
<b>Casing Size:</b> 8.00	<b>Depth Well:</b> 700 feet	<b>Depth Water:</b> 305 feet

Water Bearing Stratifications:	Top	Bottom	Description
	270	317	Sandstone/Gravel/Conglomerate
	317	375	Sandstone/Gravel/Conglomerate
	375	420	Sandstone/Gravel/Conglomerate
	420	565	Sandstone/Gravel/Conglomerate
	565	590	Sandstone/Gravel/Conglomerate
	590	700	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	300	700

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

10/12/20 12:16 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)					(NAD83 UTM in meters)		
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
NA	CP 01706 POD1	4	4	2	32	22S	34E	642603	3580185

<b>Driller License:</b> 1706	<b>Driller Company:</b> ELITE DRILLERS CORPORATION	
<b>Driller Name:</b> BRYCE WALLACE		
<b>Drill Start Date:</b> 01/06/2020	<b>Drill Finish Date:</b> 01/07/2020	<b>Plug Date:</b>
<b>Log File Date:</b> 01/13/2020	<b>PCW Rev Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 55 GPM
<b>Casing Size:</b> 4.30	<b>Depth Well:</b> 340 feet	<b>Depth Water:</b> 282 feet

Water Bearing Stratifications:	Top	Bottom	Description
	240	295	Sandstone/Gravel/Conglomerate
	295	340	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	280	340

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

10/12/20 12:33 PM

POINT OF DIVERSION SUMMARY



USGS Home  
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### National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater  
Geographic Area: United States  
GO

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#)

Groundwater levels for the Nation

### Search Results -- 1 sites found

site\_no list =  
• 321734103290001

Minimum number of levels = 1

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

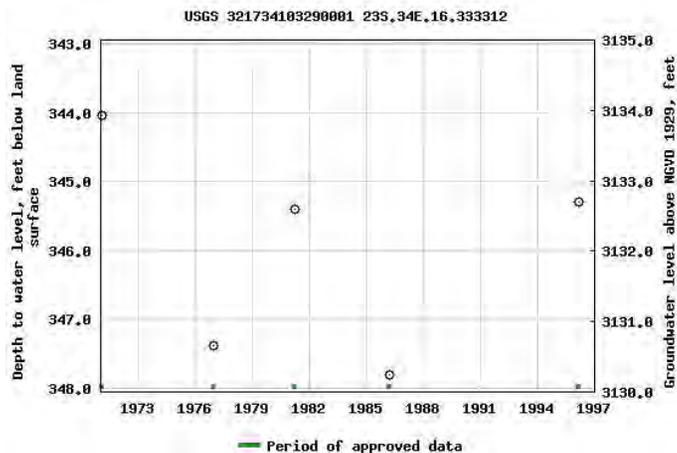
### USGS 321734103290001 23S.34E.16.333312

Available data for this site Groundwater: Field measurements GO

Lea County, New Mexico  
 Hydrologic Unit Code 13070007  
 Latitude 32°17'53", Longitude 103°28'59" NAD27  
 Land-surface elevation 3,478.00 feet above NGVD29  
 The depth of the well is 400 feet below land surface.  
 This well is completed in the Chinle Formation (231CHNL) local aquifer.

#### Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.

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

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

Page Contact Information: [USGS Water Data Support Team](#)

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### National Water Information System: Web Interface

USGS Water Resources

Data Category:  Geographic Area:

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#)

## USGS 321903103314901 23S.33E.12.312

Available data for this site

### Well Site

#### DESCRIPTION:

Latitude 32°19'03", Longitude 103°31'49" NAD27  
 Lea County, New Mexico , Hydrologic Unit 13070007  
 Well depth: not determined.  
 Land surface altitude: 3,532 feet above NGVD29.  
 Well completed in "Santa Rosa Sandstone" (231SNRS) local aquifer

#### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
<a href="#">Field/Lab water-quality samples</a>	1972-09-21	1972-09-21	1
<a href="#">Revisions</a>	Unavailable (site:0) (timeseries:0)		

#### OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center  
 Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

- [Questions about sites/data?](#)
- [Feedback on this web site](#)
- [Automated retrievals](#)
- [Help](#)
- [Data Tips](#)
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Accessibility FOIA Privacy Policies and Notices

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: **NWIS Site Information for USA: Site Inventory**

URL: [https://waterdata.usgs.gov/nwis/inventory?agency\\_code=USGS&site\\_no=321903103314901](https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=321903103314901)



Page Contact Information: [New Mexico Water Data Support Team](#)

Page Last Modified: 2020-10-13 07:44:16 EDT

0.26 0.25 caww01



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### National Water Information System: Web Interface

USGS Water Resources

Data Category:  Geographic Area:

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- [Full News](#)

Groundwater levels for the Nation

### Search Results -- 1 sites found

site\_no list =  
• 321917103303001

Minimum number of levels = 1

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

### USGS 321917103303001 23S.34E.06.43314

Available data for this site Groundwater:

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°19'17", Longitude 103°30'30" NAD27

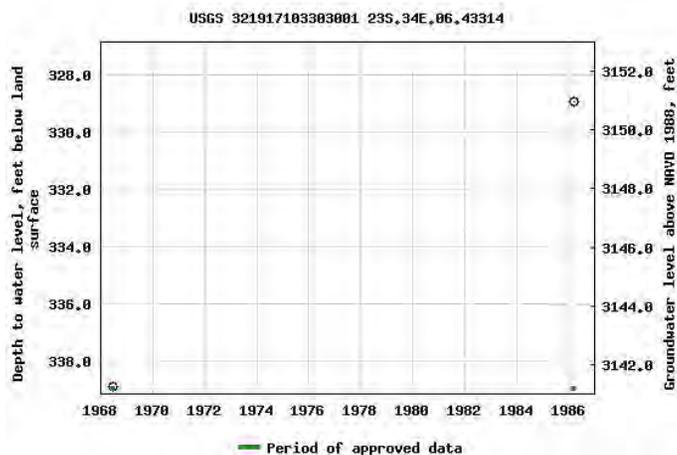
Land-surface elevation 3,480 feet above NAVD88

The depth of the well is 640 feet below land surface.

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

### Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

---

[Questions about sites/data?](#)

[Feedback on this web site](#)

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

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

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

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-10-13 07:39:22 EDT

0.58 0.52 nadww01



**RIO BLANCO 33 Fed 1**

Nearest Watercourse/Lakebed: Jal Lake  
Distance: 23.81 miles (125,699 ft)

Legend  
Feature 1

Rio Blanco 33 Fed 1

128

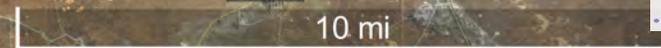
207  
18

205

Jal

3

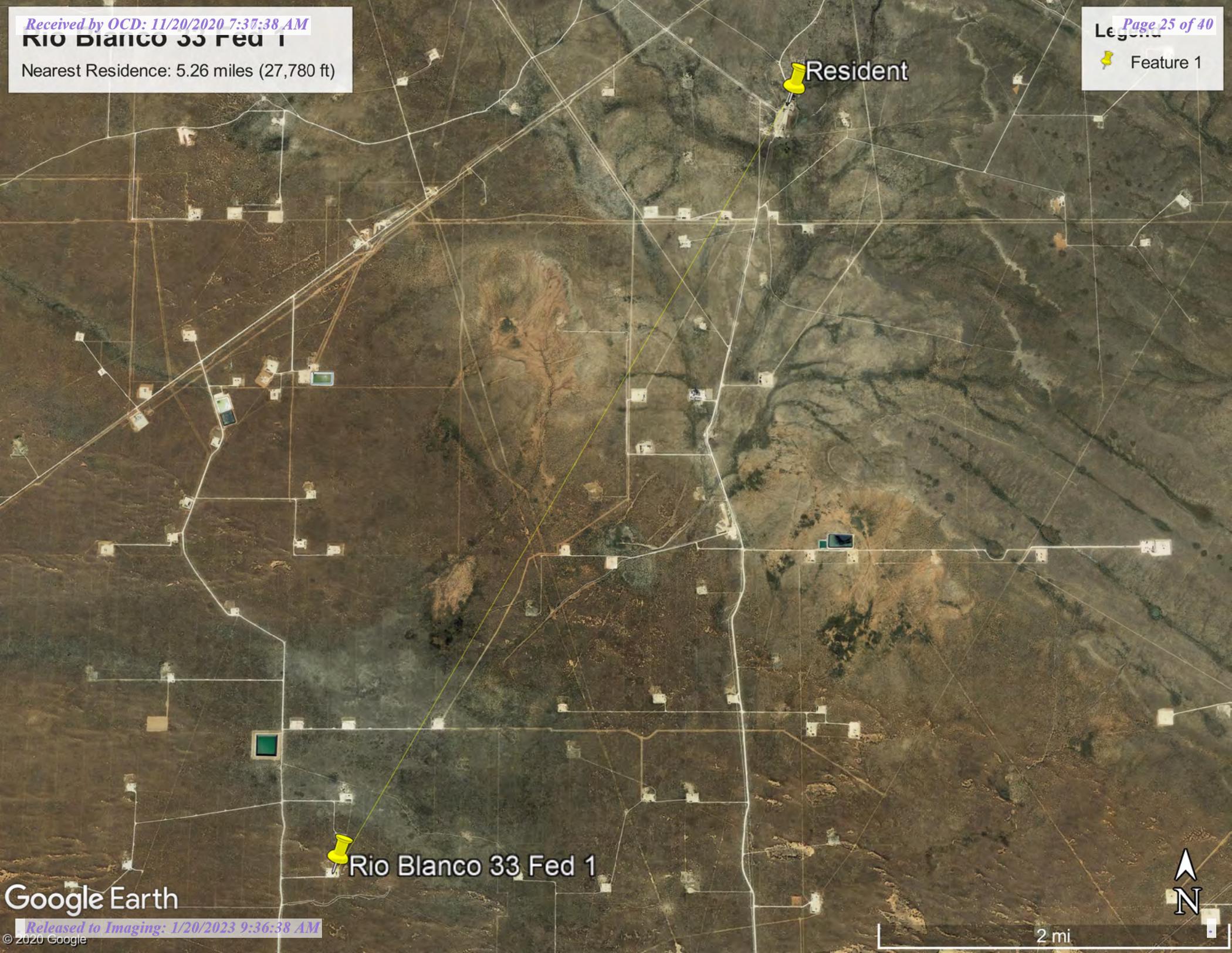
10 mi



**RIO BLANCO 33 Fed 1**

Nearest Residence: 5.26 miles (27,780 ft)

Legend  
Feature 1



Resident

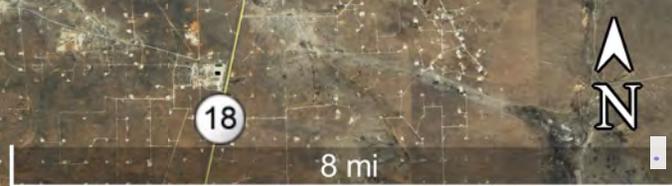
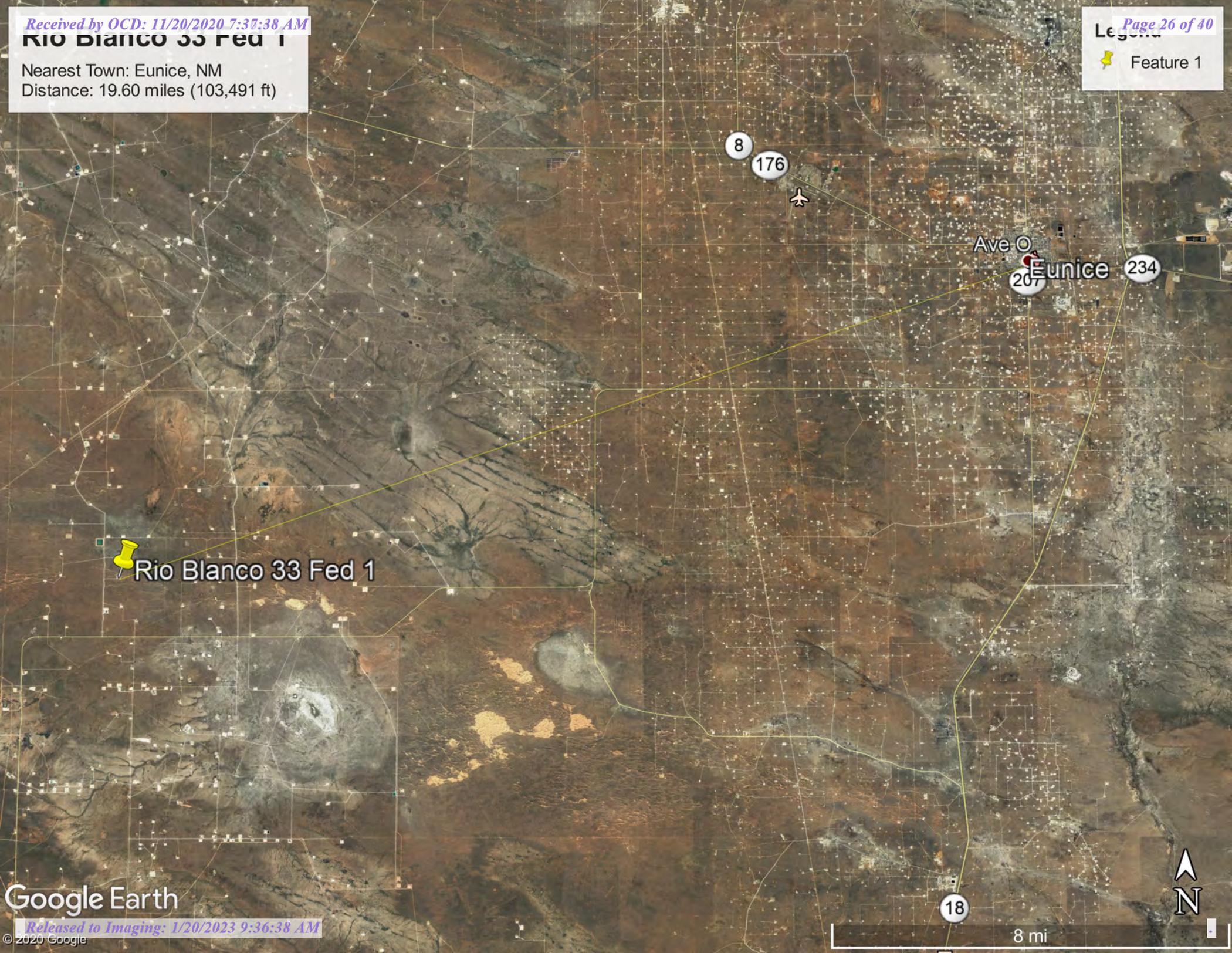
Rio Blanco 33 Fed 1

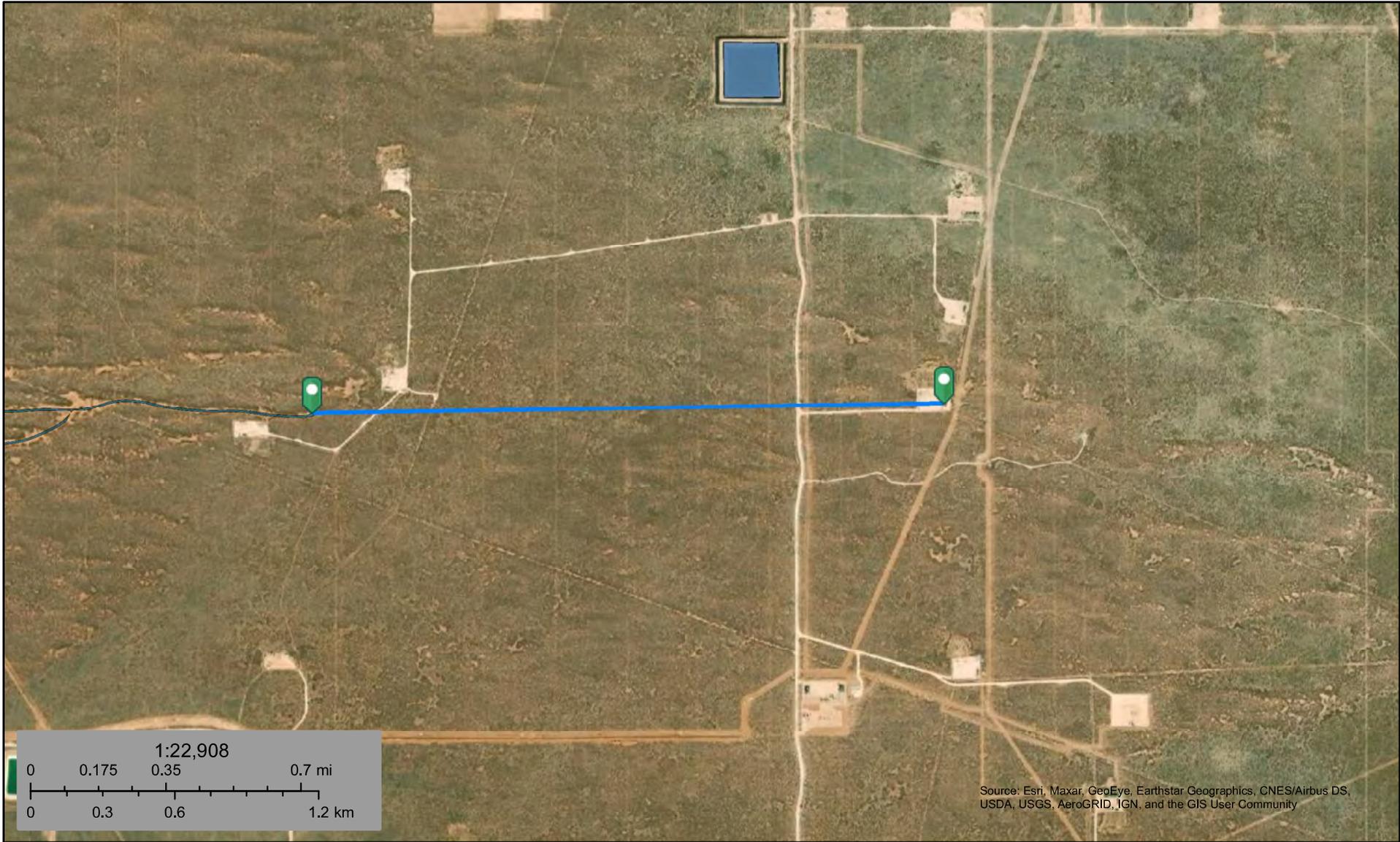


**RIO BLANCO 33 Fed 1**

Nearest Town: Eunice, NM  
Distance: 19.60 miles (103,491 ft)

Feature 1





Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

October 12, 2020

**Wetlands**

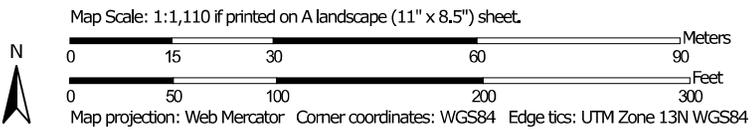
- |   |                                |   |                                   |   |          |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland       |  | Lake     |
|  | Estuarine and Marine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

Soil Map—Lea County, New Mexico



Soil Map may not be valid at this scale.



### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

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

**Background**

 Aerial Photography

### MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico  
 Survey Area Data: Version 17, Jun 8, 2020

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—Lea County, New Mexico

---

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit soils and Dune land, 0 to 12 percent slopes	6.2	100.0%
<b>Totals for Area of Interest</b>		<b>6.2</b>	<b>100.0%</b>

Map Unit Description: Kermit soils and Dune land, 0 to 12 percent slopes---Lea County, New Mexico

---

## Lea County, New Mexico

### KM—Kermit soils and Dune land, 0 to 12 percent slopes

#### Map Unit Setting

*National map unit symbol:* dmpx  
*Elevation:* 3,000 to 4,400 feet  
*Mean annual precipitation:* 10 to 15 inches  
*Mean annual air temperature:* 60 to 62 degrees F  
*Frost-free period:* 190 to 205 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Kermit and similar soils:* 46 percent  
*Dune land:* 44 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Kermit

##### Setting

*Landform:* Dunes  
*Landform position (two-dimensional):* Shoulder, backslope, footslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex, linear, concave  
*Across-slope shape:* Convex  
*Parent material:* Calcareous sandy eolian deposits derived from sedimentary rock

##### Typical profile

*A - 0 to 8 inches:* fine sand  
*C - 8 to 60 inches:* fine sand

##### Properties and qualities

*Slope:* 5 to 12 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Excessively drained  
*Runoff class:* Very low  
*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  
*Calcium carbonate, maximum content:* 3 percent  
*Gypsum, maximum content:* 1 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water capacity:* Low (about 3.1 inches)

Map Unit Description: Kermit soils and Dune land, 0 to 12 percent slopes---Lea County, New Mexico

---

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7e

*Hydrologic Soil Group:* A

*Ecological site:* R042XC022NM - Sandhills

*Hydric soil rating:* No

### Description of Dune Land

#### Setting

*Landform:* Dunes

*Landform position (two-dimensional):* Shoulder, backslope, footslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex, linear, concave

*Across-slope shape:* Convex

#### Typical profile

*A - 0 to 6 inches:* fine sand

*C - 6 to 60 inches:* fine sand

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 8e

*Hydrologic Soil Group:* A

*Hydric soil rating:* No

### Minor Components

#### Palomas

*Percent of map unit:* 3 percent

*Ecological site:* R042XC003NM - Loamy Sand

*Hydric soil rating:* No

#### Pyote

*Percent of map unit:* 3 percent

*Ecological site:* R042XC003NM - Loamy Sand

*Hydric soil rating:* No

#### Wink

*Percent of map unit:* 2 percent

*Ecological site:* R042XC003NM - Loamy Sand

*Hydric soil rating:* No

#### Maljamar

*Percent of map unit:* 2 percent

*Ecological site:* R042XC003NM - Loamy Sand

*Hydric soil rating:* No

## Data Source Information

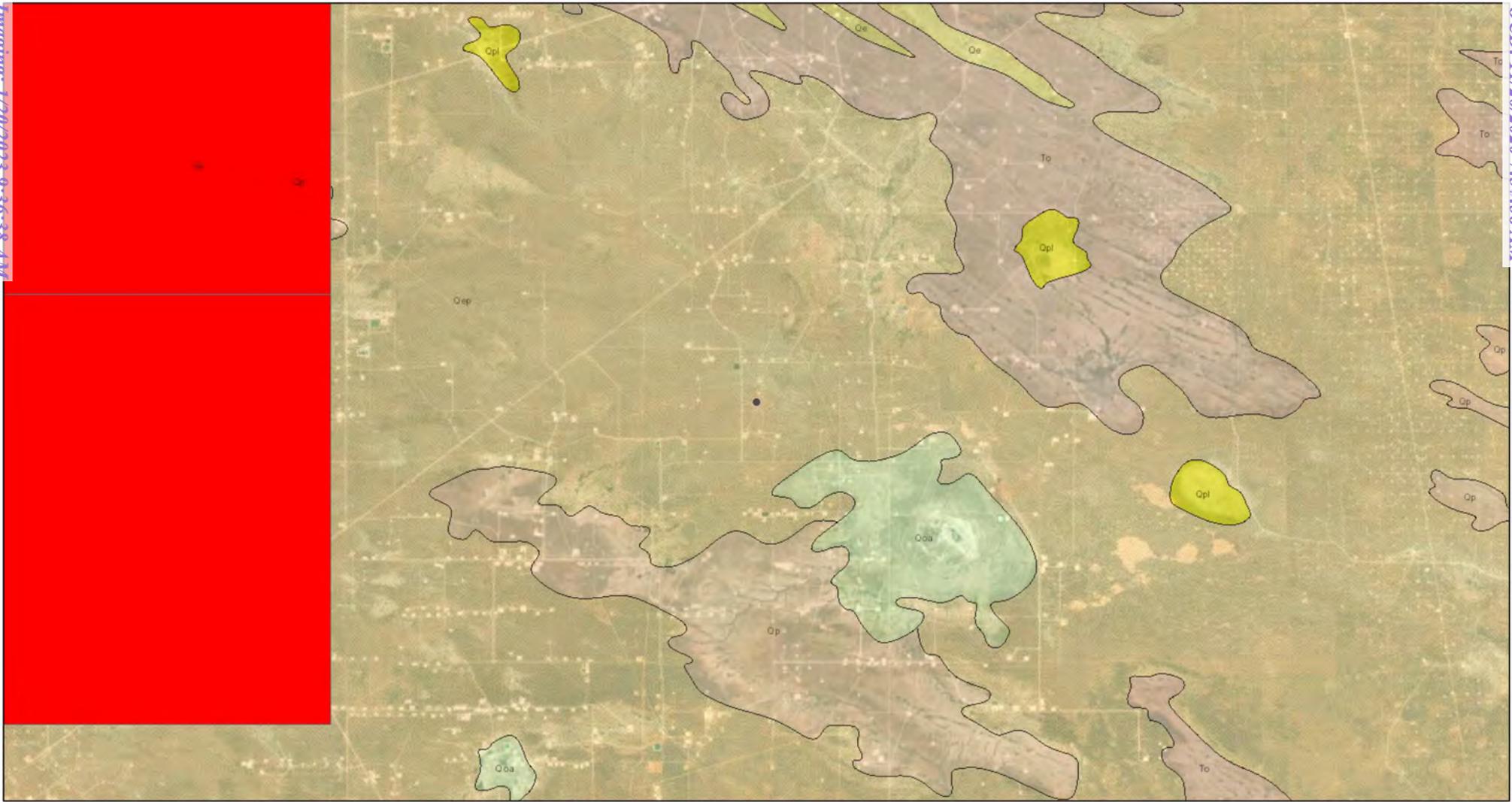
Soil Survey Area: Lea County, New Mexico

Survey Area Data: Version 17, Jun 8, 2020

# Rio Blanco 33 Fed 1

Released to Imaging: 1/20/2023 9:36:38 AM

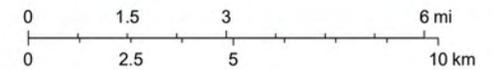
Received by OCD: 11/20/2020 7:37:38 AM



10/12/2020, 11:58:56 AM

1:144,448

Lithologic Contacts	Faults	Dikes	STATEMAP (1993 to Present) [Publications]
— Contact, Exposed	— Fault, Exposed	— <all other values>	■ Mapping is Complete
▤▤▤▤ Contact, Gradational	- - - Fault, Intermittent	— Dike	■ Mapping in Progress
- - - Nomenclature change	⋯⋯⋯ Fault, Concealed	+++ Dike intruding fault	
— Map Boundary	~ Shere Zone	* Volcanic Vents	



Earthstar Geographics, NMBGMR

**ATTACHMENT 4**

## Natalie Gordon

---

**From:** Dhugal Hanton <vertexresourcegroupusa@gmail.com>  
**Sent:** Tuesday, September 29, 2020 3:37 PM  
**To:** Natalie Gordon  
**Subject:** Fwd: NJXK1619637333: Rio Blanco 33 Fed 1 - 48-hr Notification of Liner Inspection

----- Forwarded message -----

From: **Dhugal Hanton** <[vertexresourcegroupusa@gmail.com](mailto:vertexresourcegroupusa@gmail.com)>  
Date: Tue, Sep 29, 2020 at 3:37 PM  
Subject: NJXK1619637333: Rio Blanco 33 Fed 1 - 48-hr Notification of Liner Inspection  
To: <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>, <[tom.bynum@dvn.com](mailto:tom.bynum@dvn.com)>, <[wesley.mathews@dvn.com](mailto:wesley.mathews@dvn.com)>, <[Lupe.Carrasco@dvn.com](mailto:Lupe.Carrasco@dvn.com)>, <[amanda.davis@dvn.com](mailto:amanda.davis@dvn.com)>

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled a liner inspection to be conducted at Rio Blanco 33 Fed 1 for the release that occurred on November 3, 2012, incident # NJXK1619637333 (1RP-4322).

This work will be completed on behalf of Devon Energy Production Company.

On Friday, October 2, 2020 at approximately 12:00 p.m., Monica Peppin of Vertex will be onsite to conduct a liner inspection. She can be reached at 575-361-9880. If you need directions to the site, please do not hesitate to contact her.

If you have any questions or concerns regarding this notification, please give me a call at 505-506-0040.

Thank you,  
Natalie

**Natalie Gordon**  
Project Manager

Vertex Resource Group Ltd.  
213 S. Mesa Street  
Carlsbad, NM 88220

**P 575.725.5001 ext 709**  
**C 505.506.0040**

[www.vertex.ca](http://www.vertex.ca)

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## **ATTACHMENT 5**



# Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/2/2020
Site Location Name:	Rio Blanco 33 Federal #1	Report Run Date:	10/2/2020 8:33 PM
Client Contact Name:	Amanda Davis	API #:	30-025-36359
Client Contact Phone #:	(575) 748-0176		
Unique Project ID	-Rio Blanco 33 Federal #1	Project Owner:	Tom Bynum
Project Reference #	1RP-4322	Project Manager:	Natalie Gordon

### Summary of Times

Arrived at Site	10/2/2020 12:59 PM
Departed Site	

### Field Notes

**13:00** Conduct liner inspection

### Next Steps & Recommendations

1



# Daily Site Visit Report

## Site Photos

Viewing Direction: North



Descriptive Photo - 1  
Viewing Direction: North  
Desc: Containment area  
Created: 10/2/2020 1:01:10 PM  
Lat:32.343884, Long:-103.477895

Containment area

Viewing Direction: West



Descriptive Photo - 2  
Viewing Direction: West  
Desc: Containment area between tanks  
Created: 10/2/2020 1:01:37 PM  
Lat:32.343884, Long:-103.477895

Containment area between tanks

# Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Monica Peppin

**Signature:**

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 11266

**CONDITIONS**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 11266
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
amaxwell	None	1/20/2023