



Pima Environmental Services
5614 N. Lovington Highway
Hobbs, NM 88240
575-964-7740

June 24, 2022

NMOCD District 2
811 S. First Street
Artesia, NM 88210

Bureau of Land Management
620 East Green Street
Carlsbad, NM 88220

RE: Liner Inspection and Closure Report
Thistle Unit 22 CTB 2
API No. N/A
GPS: Latitude 32.295341 Longitude -103.554565
UL- A, Section 22, Township 23S, Range 33E
NMOCD Reference No. NAPP2130051391

Devon Energy Production Company (Devon) has contracted Pima Environmental Services, LLC (Pima) to perform a liner inspection and prepare this closure report for a produced water release that happened at the Thistle Unit 22 CTB 2 (Thistle). An initial C-141 was submitted on October 27, 2021, and can be found in Appendix B. This incident was assigned Incident ID NAPP2130051391, by the New Mexico Oil Conservation Division (NMOCD).

Site Information and Site Characterization

The Thistle is located approximately twenty-five (25) miles West of Eunice, NM. This spill site is in Unit A, Section 22, Township 23S, Range 33E, Latitude 32.295341 Longitude -103.554565, Lea County, NM. A Location Map can be found in Figure 1.

Based upon New Mexico Office of the State Engineer well water data, depth to the nearest groundwater in this area is 225 feet below grade surface (BGS). According to the United States Geological Survey well water data, depth to the nearest groundwater in this area is greater than 146 feet BGS. See Appendix A for referenced water surveys. The Thistle is in a low karst area (Figure 3). A Topographic Map can be found in Figure 2.

Release Information

NAPP2130051391: On October 18, 2021, A Water transfer pump seal leaked and produced water leaked into lined containment. Approximately 11.7 barrels (bbls) of produced water was released. A vacuum truck was dispatched and recovered all 11.7 bbls of fluid from the lined SPCC containment ring. Once fluids were removed, the liner was visually inspected by Devon field staff for any pinholes or punctures, and none were found. Based on this inspection there is no evidence that the spilled fluids left containment.

A Site Map can be found in Figure 4.

Site Assessment and Liner Inspection

On June 17, 2022, after sending the 48-hour notification via email, Pima Environmental conducted a liner inspection at this location. We concluded that this liner and containment maintained its integrity and was able to retain the fluids. The liner inspection form and photographic documentation can be found in Appendix C.

Closure Request

After careful review, Pima requests that this incident, NAPP2130051391 be closed. Devon has complied with the applicable closure requirements.

Should you have any questions or need additional information, please feel free to contact Tom Bynum at 575-964-7740 or tom@pimaoil.com.

Respectfully,

Tom Bynum

Tom Bynum
Project Manager
Pima Environmental Services, LLC

Attachments

Figures:

- 1- Location Map
- 2- Topographic Map
- 3- Karst Map
- 4- Site Map

Appendices:

- Appendix A- Referenced Water Surveys
- Appendix B- C-141 Form & 48 Hour Notification
- Appendix C- Liner Inspection Form & Photographic Documentation



Pima Environmental Services

Figures:

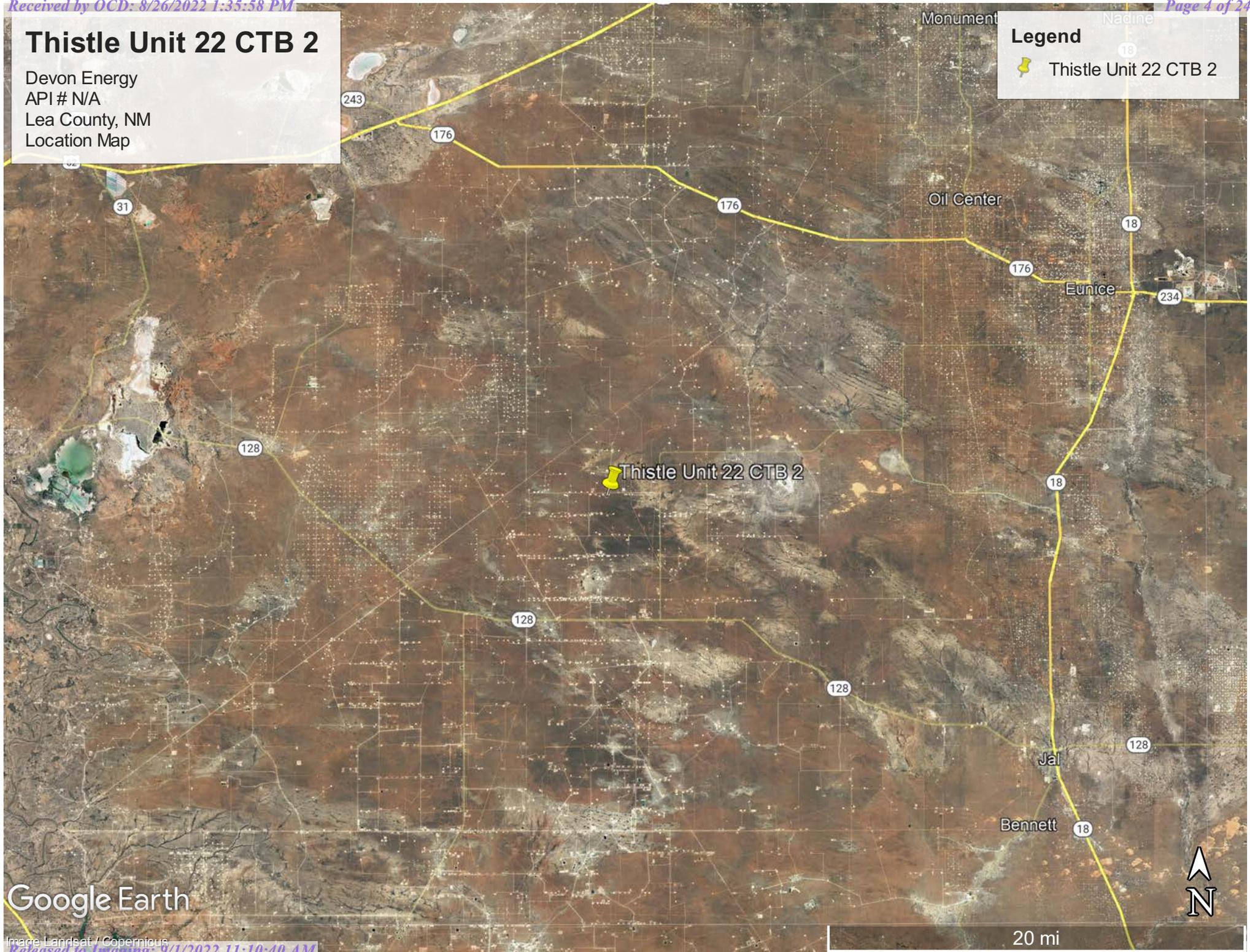
- 1 - Location Map
- 2 - Topographic Map
- 3 - Karst Map
- 4 - Site Map

Thistle Unit 22 CTB 2

Devon Energy
API # N/A
Lea County, NM
Location Map

Legend

-  Thistle Unit 22 CTB 2



Google Earth

20 mi

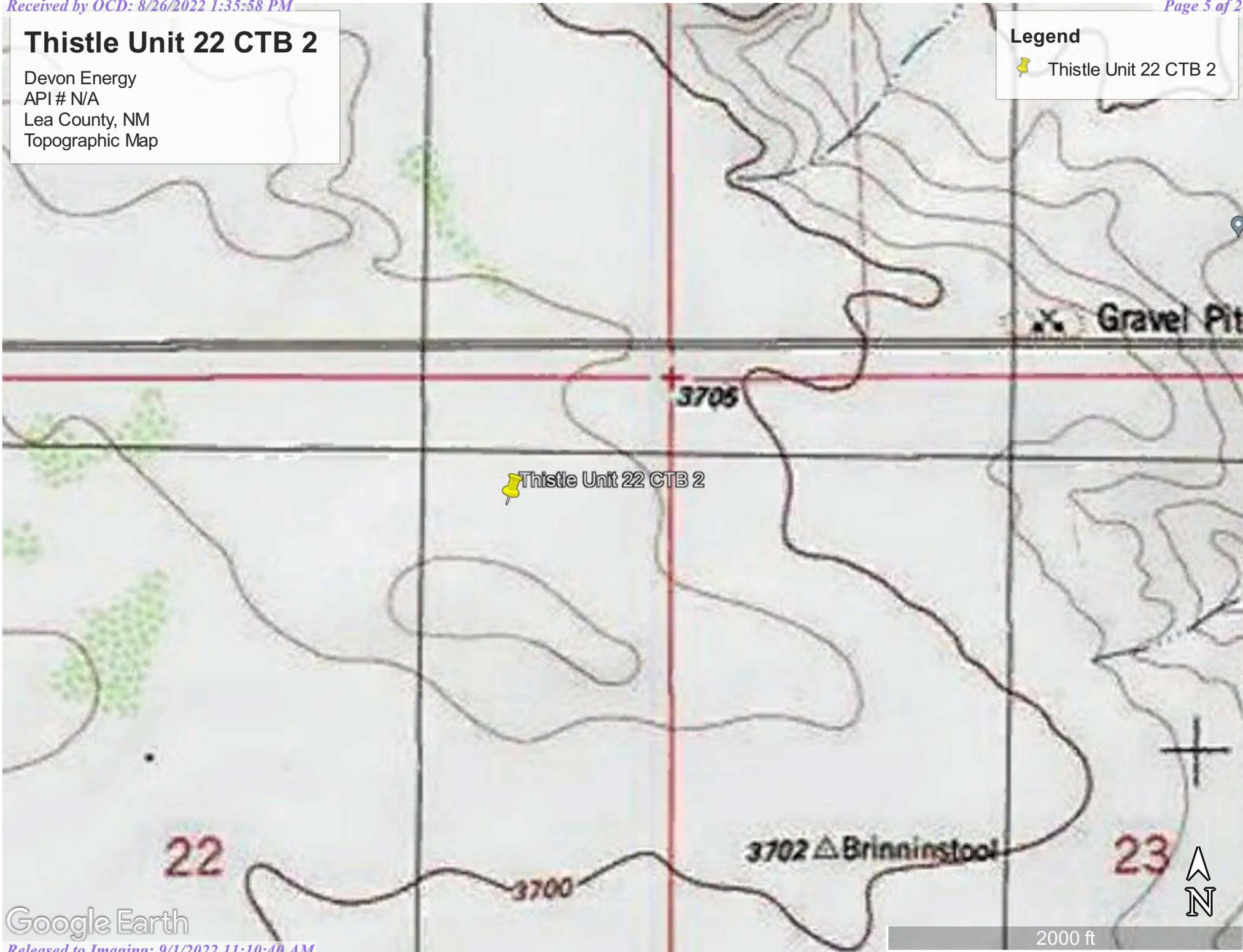


Thistle Unit 22 CTB 2

Devon Energy
API # N/A
Lea County, NM
Topographic Map

Legend

 Thistle Unit 22 CTB 2

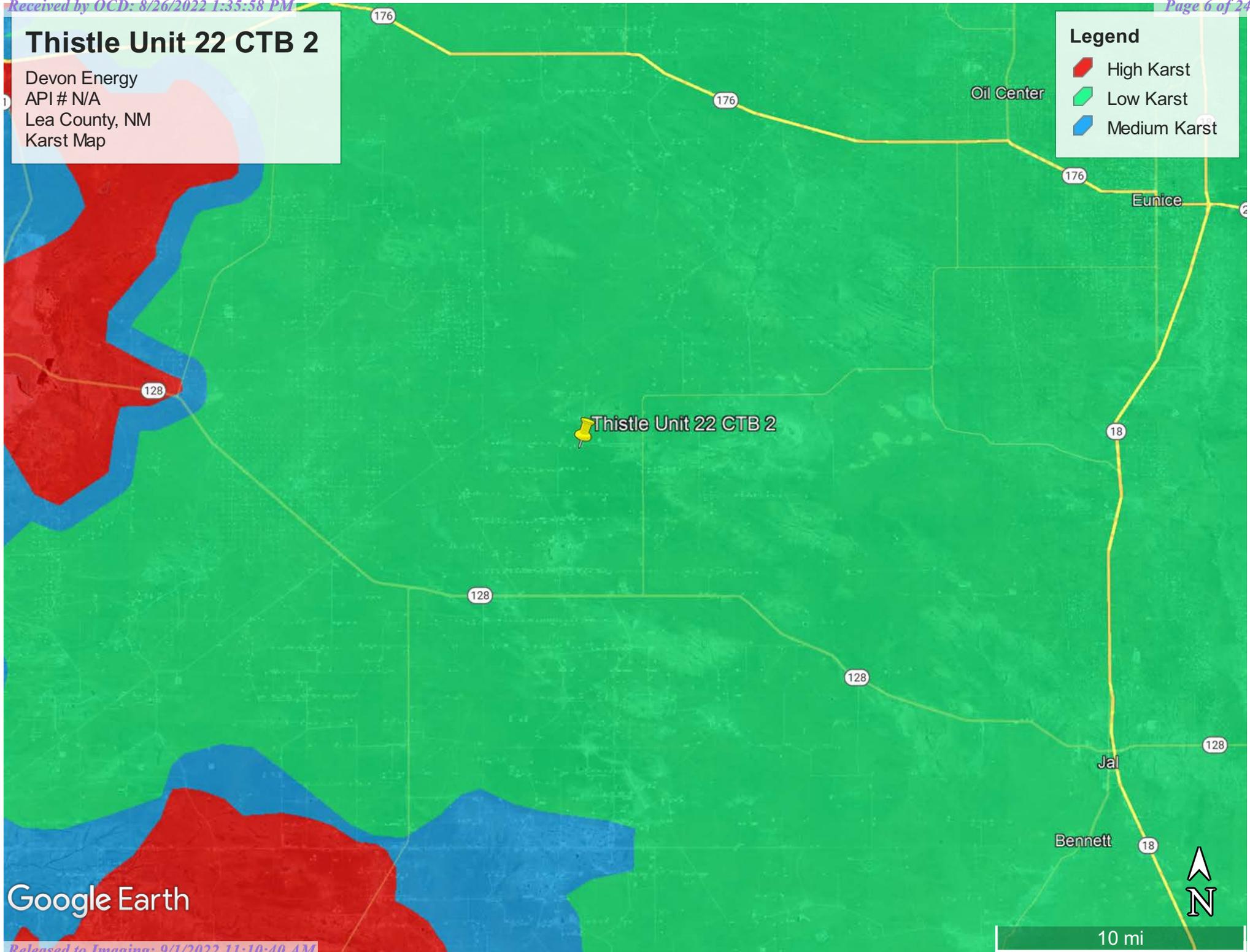


Thistle Unit 22 CTB 2

Devon Energy
API # N/A
Lea County, NM
Karst Map

Legend

- High Karst
- Low Karst
- Medium Karst



Google Earth

Thistle Unit 22 CTB 2
Devon Energy
API # N/A
Lea County, NM
Site Map

Legend
 Lined Containment



 Thistle Unit 22 CTB 2





Pima Environmental Services

Appendix A

Water Surveys:

OSE

USGS



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C_03582 POD1	C	C	LE	4	1	1	14	23S	33E	636583	3575666	1650	590		
C_02283	CUB	CUB	LE	4	2	2	26	23S	33E	637896	3572431*	2447	325	225	100
C_02282	CUB	CUB	LE	3	1	1	25	23S	33E	638098	3572436*	2596	325	225	100
C_02278	CUB	CUB	LE	3	4	2	28	23S	33E	634484	3571989*	2648	650	400	250
C_02280	CUB	CUB	LE	3	2	4	28	23S	33E	634489	3571586*	2975	650	400	250
C_02284	CUB	CUB	LE	4	2	4	26	23S	33E	637907	3571626*	3057	325	225	100
C_02281	CUB	CUB	LE	3	4	4	28	23S	33E	634495	3571183*	3318	545	400	145
C_04353 POD1	CUB	CUB	ED	4	2	2	24	23S	33E	639474	3574098	3377	603	330	273
C_02277	CUB	CUB	LE	2	3	4	20	23S	33E	632663	3572970*	3611	550	400	150
C_02279	CUB	CUB	LE	3	4	3	28	23S	33E	633691	3571173*	3780	650	400	250
C_04595 POD1	CUB	CUB	LE	4	3	3	34	23S	33E	635150	3569564	4622	55		

Average Depth to Water: **333 feet**
 Minimum Depth: **225 feet**
 Maximum Depth: **400 feet**

Record Count: 11

UTMNAD83 Radius Search (in meters):

Easting (X): 636096.72

Northing (Y): 3574089.51

Radius: 5000

*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.

6/10/22 2:26 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for the Nation

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

Search Results -- 1 sites found

site_no list =

- 321609103321701

Minimum number of levels = 1

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

USGS 321609103321701 23S.33E.26.421342

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°16'09", Longitude 103°32'17" NAD27

Land-surface elevation 3,648 feet above NAVD88

The depth of the well is 173 feet below land surface.

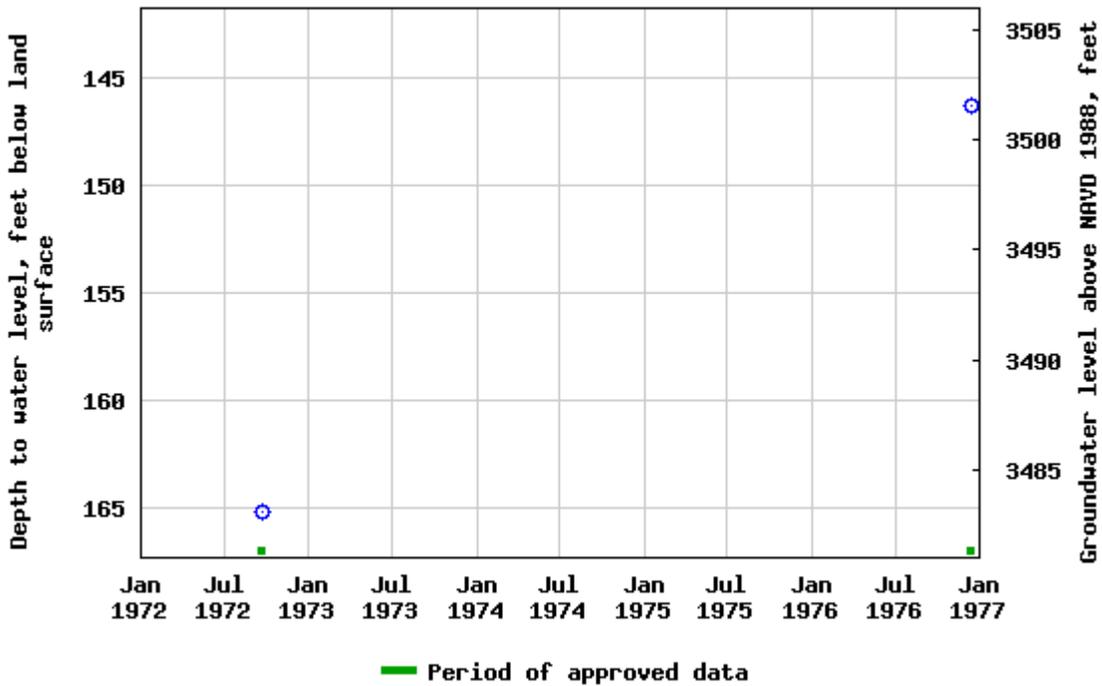
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

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

USGS 321609103321701 23S.33E.26.421342



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

[Download a presentation-quality graph](#)

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[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

[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: 2022-06-10 16:57:26 EDT

0.58 0.49 nadww02



Pima Environmental Services

Appendix B

C-141 Form

48-Hour Notification

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

State of New Mexico
Energy Minerals and Natural
Resources Department

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
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: _____ Title: _____ Signature: <u>Kendra DeHoyos</u> Date: _____ email: _____ Telephone: _____
<u>OCD Only</u> Received by: <u>Ramona Marcus</u> Date: <u>11/1/2021</u>

NAPP2130051391

Spills In Lined Containment	
Measurements Of Standing Fluid	
Length(Ft)	71
Width(Ft)	71
Depth(in.)	0.25
Total Capacity without tank displacements (bbls)	18.70
No. of 500 bbl Tanks In Standing Fluid	10
No. of Other Tanks In Standing Fluid	
OD Of Other Tanks In Standing Fluid(feet)	
Total Volume of standing fluid accounting for tank displacement.	11.71

Incident ID	NAPP2130051391
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	146 (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 not 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 ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAPP2130051391
District RP	
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: Wes Mathews Title: EHS Professional
 Signature: Wesley Mathews Date: 6/24/2022
 email: wesley.mathews@dvn.com Telephone: 575-513-8608

OCD Only

Received by: Jocelyn Harimon Date: 08/26/2022

Incident ID	NAPP2130051391
District RP	
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: Wes Mathews Title: EHS Professional
 Signature: *Wesley Mathews* Date: 6/24/2022
 email: wesley.mathews@dvn.com Telephone: 575-513-8608

OCD Only

Received by: Jocelyn Harimon Date: 08/26/2022

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: *Jennifer Nobui* Date: 09/01/2022
 Printed Name: Jennifer Nobui Title: Environmental Specialist A



Gio PimaOil <gio@pimaoil.com>

Thistle 22 CTB 2 Notice of Inspection

1 message

Gio PimaOil <gio@pimaoil.com>

Wed, Jun 15, 2022 at 9:03 AM

To: ocdonline@state.nm.us, Tom Pima Oil <tom@pimaoil.com>

Good Morning,

Pima Environmental would like to notify you that we will be conducting a liner Inspection at the Thistle Unit 22 CTB 2 for incident NAPP2130051391. Pima personnel are scheduled to be on site for this Inspection event at approximately 9:00 a.m. On Friday, June 17, 2022. If you have any questions or concerns, please let me know. Thank you.

--

Gio Gomez
Environmental Project Manager
cell-806-782-1151
Office- 575-964-7740
Pima Environmental Services, LLC.



Pima Environmental Services

Appendix C

Liner Inspection Form

Photographic Documentation



Pima Environmental Services, LLC

Liner Inspection Form

Company Name: Devon Energy

Site: Thistle Unit 22 CTB

Lat/Long: 32.295341, -103.554565

NMOCD Incident ID

& Incident Date: NAPP2130051391 10/18/2021

2-Day Notification

Sent: via Email by Gio Gomez 6/15/2022

Inspection Date: 6/17/2022

Liner Type: Earthen w/liner Earthen no liner Polystar
 Steel w/poly liner Steel w/spray epoxy No Liner

Other: _____

Visualization	Yes	No	Comments
Is there a tear in the liner?		X	
Are there holes in the liner?		X	
Is the liner retaining any fluids?	X		Rainwater
Does the liner have integrity to contain a leak?	X		

Comments: _____

Inspector Name: Ned Rogers Inspector Signature: Ned Rogers





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 138554

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 138554
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Approved.	9/1/2022