Pima Environmental Services, LLC.
1601 N Turner, Suite 500
Hobbs, NM, 88240
575-964-7740

July 14th, 2021

Bureau of Land Management
Mr. Jim Amos
620 East Green St
Carlsbad, NM, 88220

NMOCD District 2
Mr. Mike Bratcher
811 S. First St
Artesia, NM, 88210

RE: Liner Inspection and Closure Report
Rattlesnake 16 SWD #001
API No. 30-025-42335
GPS: Latitude 32.043804 Longitude -103.48184
UL "E ", Section 16, Township 26S, Range 34E
NMOCD Reference No. NAPP2114632553

Dear Mr. Amos and Mr. Bratcher,

Pima Environmental Services, LLC (Pima) has been contracted by Devon Energy Production Company (Devon) to perform a liner inspection and prepare this closure report for a release that happened on the Rattlesnake 16 SWD #001 (Rattlesnake). An initial C141 was submitted on June 8th, 2021, and can be found in Appendix B. This incident was assigned Incident ID NAPP2114632553, by the New Mexico Oil Conservation Division (NMOCD).

Site Information and Site Characterization

The Rattlesnake is located approximately seventeen (17) miles southwest of Jal, NM. This spill site is in Unit E, Section 16, Township 26S, Range 34E, Latitude 32.043804 Longitude -103.48184, Lea County, NM.

Based upon New Mexico Office of the State Engineer well water data, depth to the nearest groundwater in this area is 200 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 100 feet BGS. See Appendix A for referenced water surveys. The Rattlesnake is in a low karst area.

Release Information

NAPP2114632553: On May 25th, 2021, it was discovered that the inlet valves did not close when the electrical power went out. Approximately 1,450.25 barrels (bbls) of produced water was released from the tank. A vacuum truck was dispatched and recovered all 1,450.25 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.

Site Assessment and Liner Inspection

On June 3rd, 2021, after sending the 48-hour notification email, Pima Environmental conducted a liner inspection at this location. The liner inspection form and photographic documentation can be found in Appendix C.

Closure Request

After careful review, Pima requests that this incident, NAPP2114632553 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
Environmental 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-141s
Appendix C- Liner Inspection Form & Photographic Documentation

Pima Environmental Services

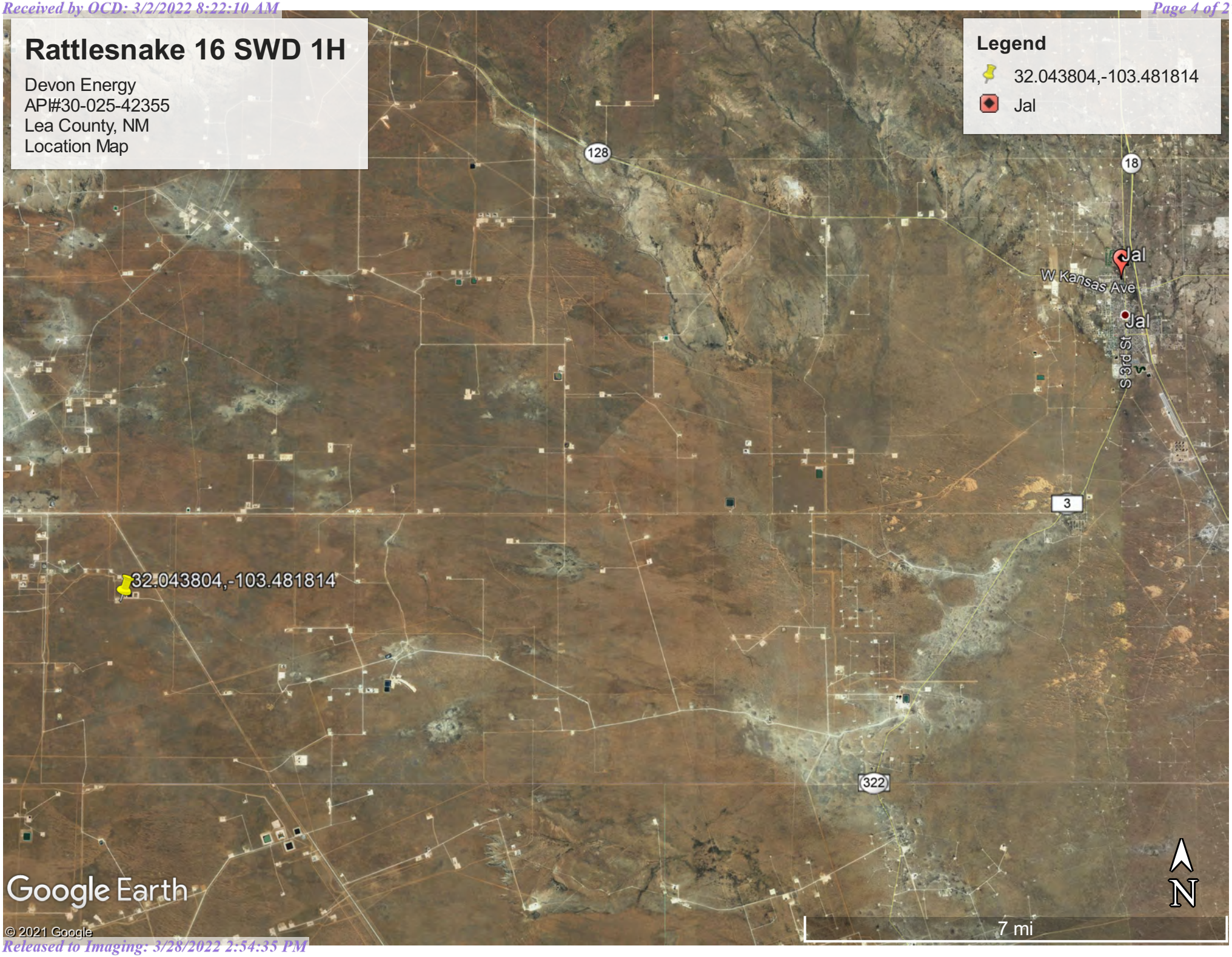
Figures:

1-Location Map

2-Topo Map

3-Karst Map

4-Site Map

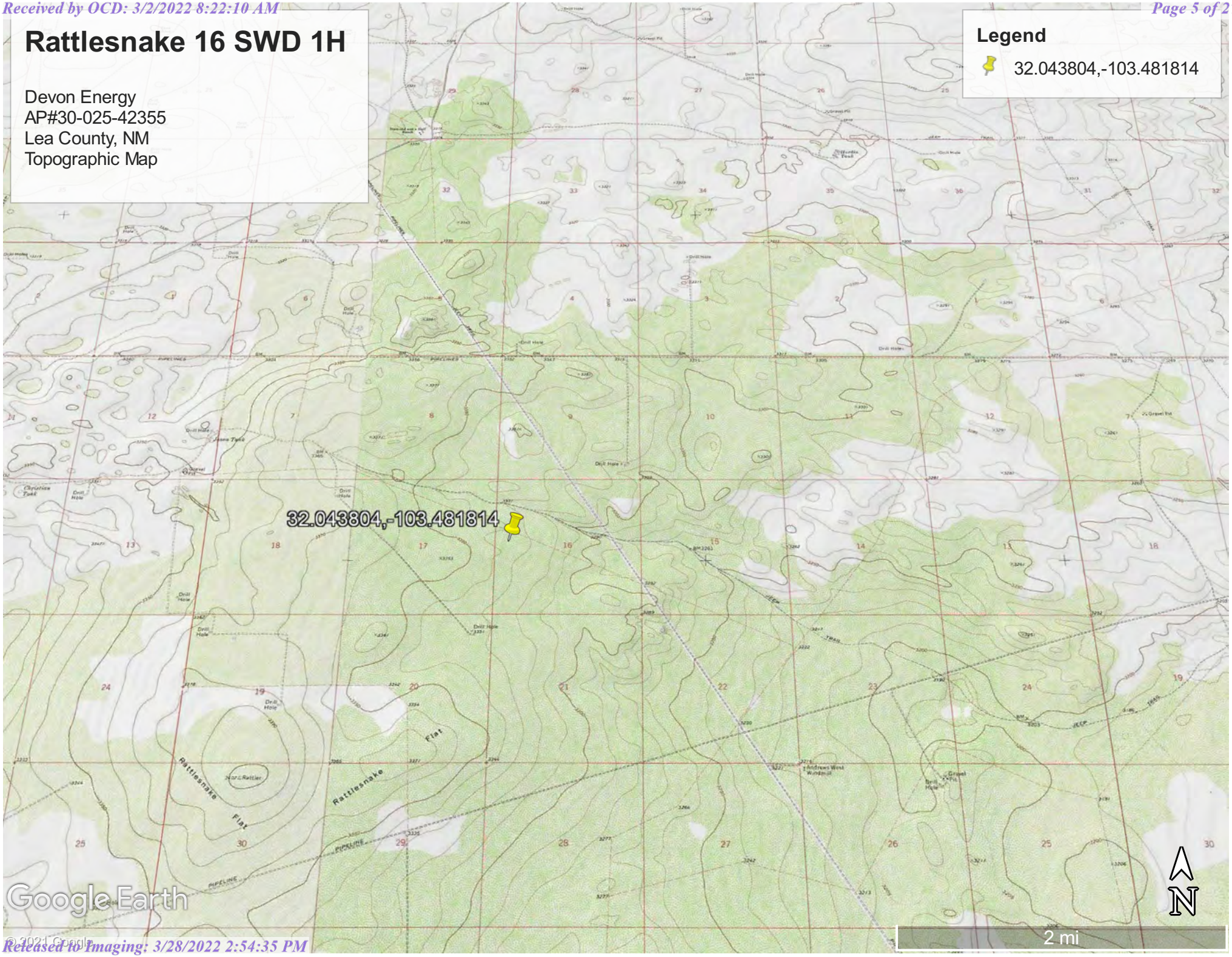

Rattlesnake 16 SWD 1H
Devon Energy
API#30-025-42355
Lea County, NM
Location Map
Legend
32.043804,-103.481814
Jal
128
18
Jal
W Kansas Ave
Jal
S 3rd St
3
32.043804,-103.481814
322
Google Earth
© 2021 Google
N
7 mi

Rattlesnake 16 SWD 1H

Devon Energy
AP#30-025-42355
Lea County, NM
Topographic Map

Legend

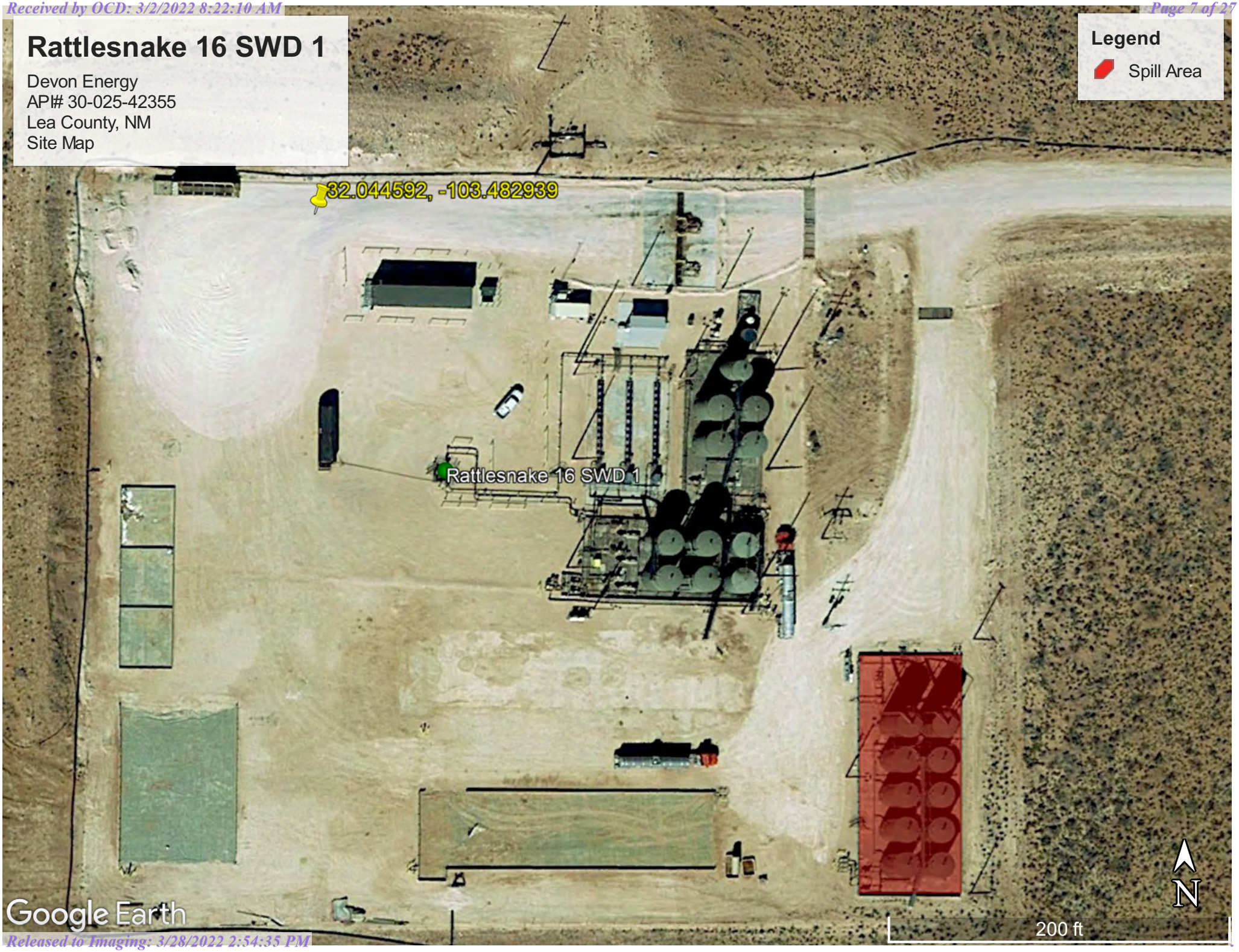
32.043804,-103.481814




Rattlesnake 16 SWD 1H
Devon
Lea County,NM
Karst Map
Legend
High Karst
Low Karst
Medium Karst
32.043804,-103,481814
N
200 ft
Google Earth

Rattlesnake 16 SWD 1

Devon Energy
API# 30-025-42355
Lea County, NM
Site Map



Pima Environmental Services

Appendix A

Water Surveys:

OSE

USGS

Surface Water Map

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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02295		CUB	LE	2	2	4	12	26S	33E	639865	3547624	3589	250	200	50
C 02292 POD1		CUB	LE	4	1	2	06	26S	34E	640992	3549987	4243	200	140	60
C 03442 POD1		C	LE	4	1	2	06	26S	34E	641056	3550028	4245	251		
C 03441 POD1		C	LE	4	1	2	06	26S	34E	640971	3550039	4299	250		
C 02291		CUB	LE	1	1	2	06	26S	34E	640825	3550140*	4461	220	160	60

Average Depth to Water: **166 feet**
Minimum Depth: **140 feet**
Maximum Depth: **200 feet**

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 643233.36 **Northing (Y):** 3546384 **Radius:** 5000

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

7/7/21 4:11 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

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

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

site_no list =

- 320419103302202

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

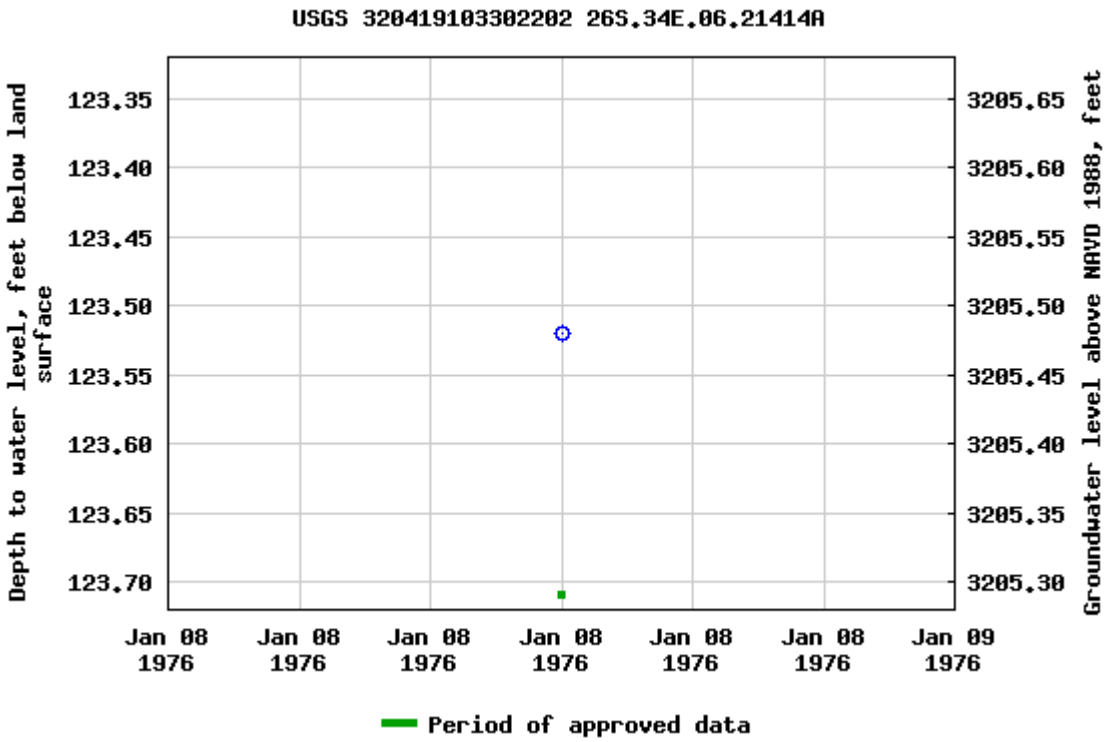
USGS 320419103302202 26S.34E.06.21414A

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

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°04'19", Longitude 103°30'22" NAD27
Land-surface elevation 3,329 feet above NAVD88
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



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
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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: 2021-07-07 11:55:56 EDT
0.56 0.5 nadww02

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

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

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

site_no list =

- 320419103302201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

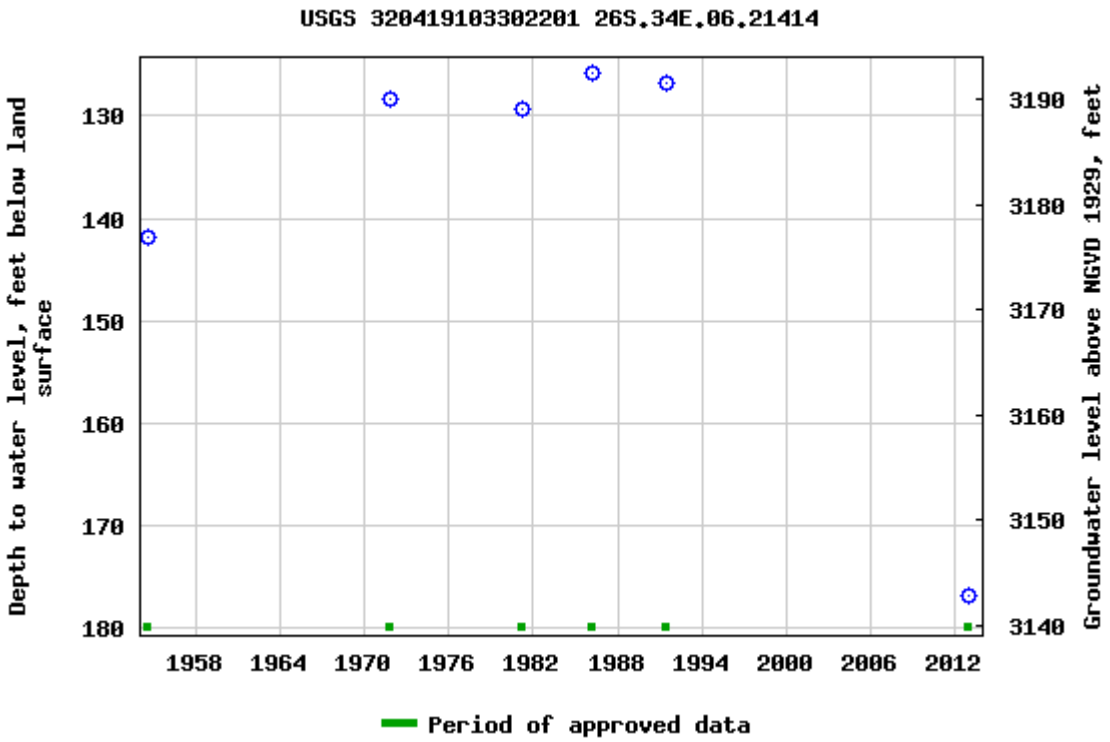
USGS 320419103302201 26S.34E.06.21414

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

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°04'37.9", Longitude 103°30'20.5" NAD83
Land-surface elevation 3,319.00 feet above NGVD29
The depth of the well is 360 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



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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Explanation of terms
Subscribe for system changes
News

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: 2021-07-07 11:57:28 EDT
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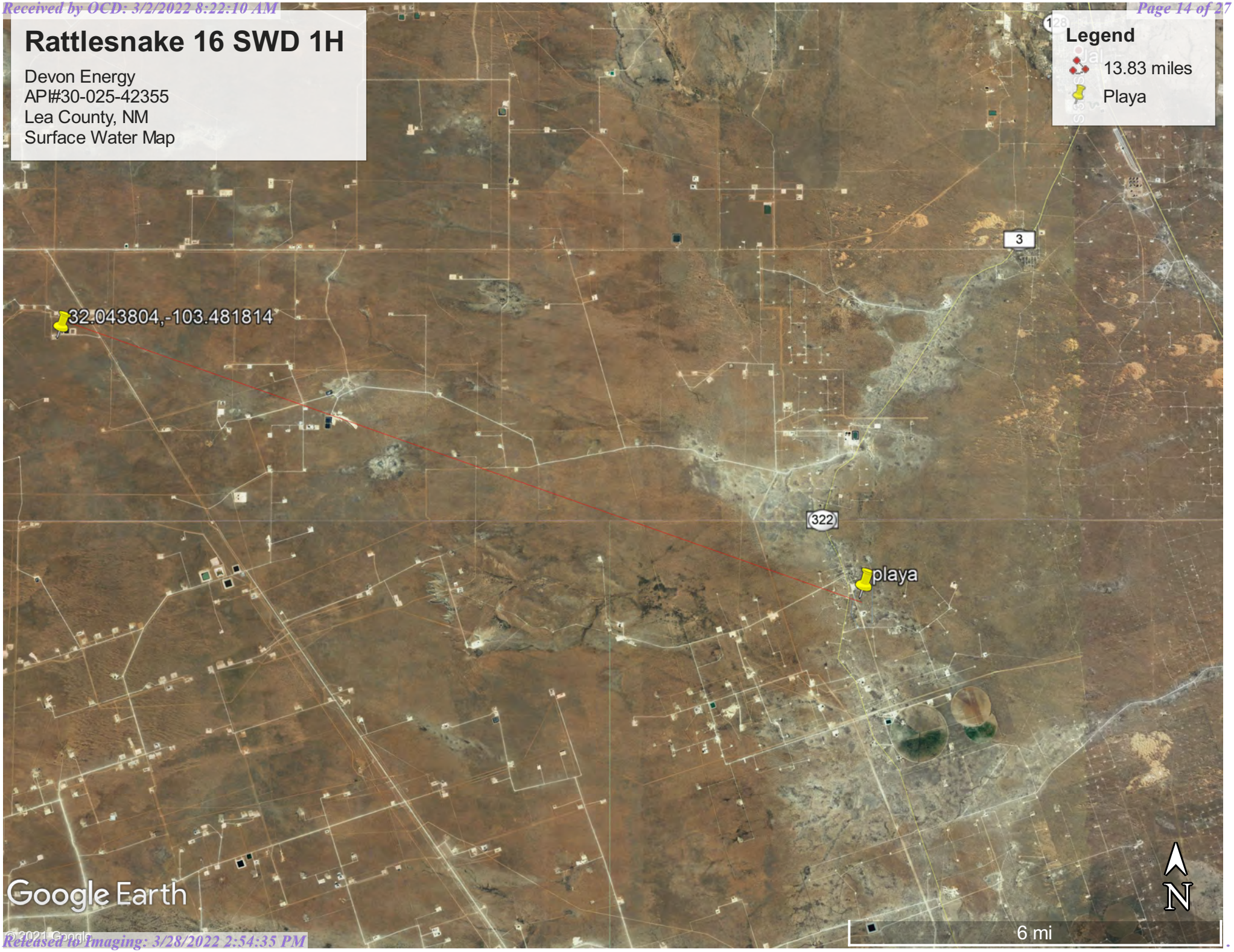
Rattlesnake 16 SWD 1H

Devon Energy
API#30-025-42355
Lea County, NM
Surface Water Map



Pima Environmental Services

Appendix B

C-141s

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

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

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

Incident ID	nAPP2114632553
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Wesley Mathews	Contact Telephone 575-578-6195
Contact email Wesley.Mathews@dvn.com	Incident # *(assigned by OCD)*
Contact mailing address 6488 Seven Rivers Hwy Artesia, NM 88210	

Location of Release Source

Latitude 32.043884 Longitude -103.482042
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Rattlesnake 16 SWD	Site Type Salt Water Disposal
Date Release Discovered 5/25/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	16	26S	34E	Lea

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
■ Produced Water	Volume Released (bbls) 1450.25 BBLS	Volume Recovered (bbls) 1450.25 BBLS
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Inlet valves did not close when power went out. All fluid remained in containment.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2114632553
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Spill is over 25 BBLS.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
NOR was completed on the OCD website.

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.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Kendra DeHoyos Title: EHS Associate

Signature: Kendra DeHoyos Date: 6/8/2021

email: Kendra.DeHoyos@dvn.com Telephone: 575-748-0167

OCD Only

Received by: Ramona Marcus Date: 6/9/2021

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2114632553
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?	200 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ 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)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ 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?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2114632553
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: 7/14/2021

email: wesley.mathews@dvn.com Telephone: 575-513-8608

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2114632553
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: 7/14/2021

email: wesley.mathews@dvn.com Telephone: 575-513-8608

OCD Only

Received by: Chad Hensley Date: 03/28/2022

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: Chad Hensley Date: 03/28/2022

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

Pima Environmental Services

Appendix C

Liner Inspection Form

Photographic Documentation

Pima Environmental Services, LLC

Liner Inspection Form

Company Name: Devon Energy

Site: Rattlesnake 16 SWD #1

Lat/Long: 32.043804, -103.481814

NMOCD Incident ID & Incident Date: NAPP2114632553 // 5-25-2021

2-Day Notification Sent: via Email from Tom Bynum on 6/1/2021

Inspection Date: 6/3/2021

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		

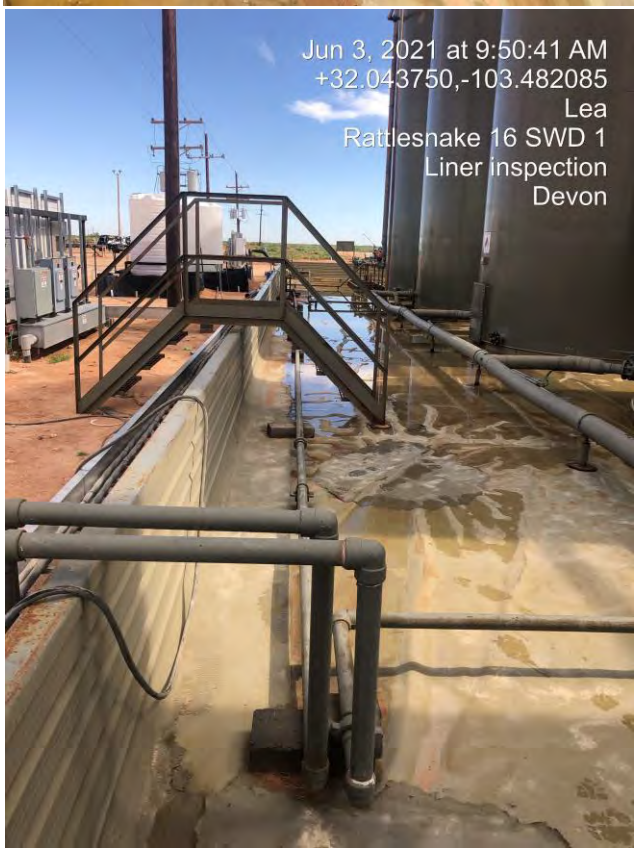
Comments:

Inspector Name: Gio Gomez Inspector Signature: Gio Gomez


Jun 3, 2021 at 9:51:22 AM
+32.044019,-103.481800
Lea
Rattlesnake 16 SWD 1
Liner inspection
Devon


Jun 3, 2021 at 9:51:29 AM
+32.044019,-103.481800
Lea
Rattlesnake 16 SWD 1
Liner inspection
Devon


Jun 3, 2021 at 9:52:19 AM
+32.043793,-103.481821
Lea
Rattlesnake 16 SWD 1
Liner inspection
Devon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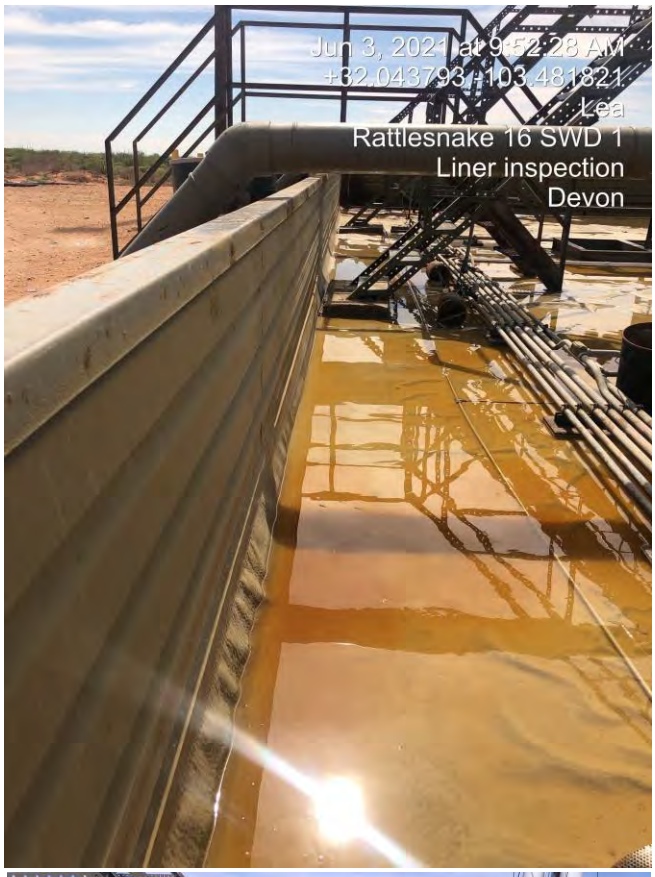
Liner inspection
Devon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Liner inspection
Devon


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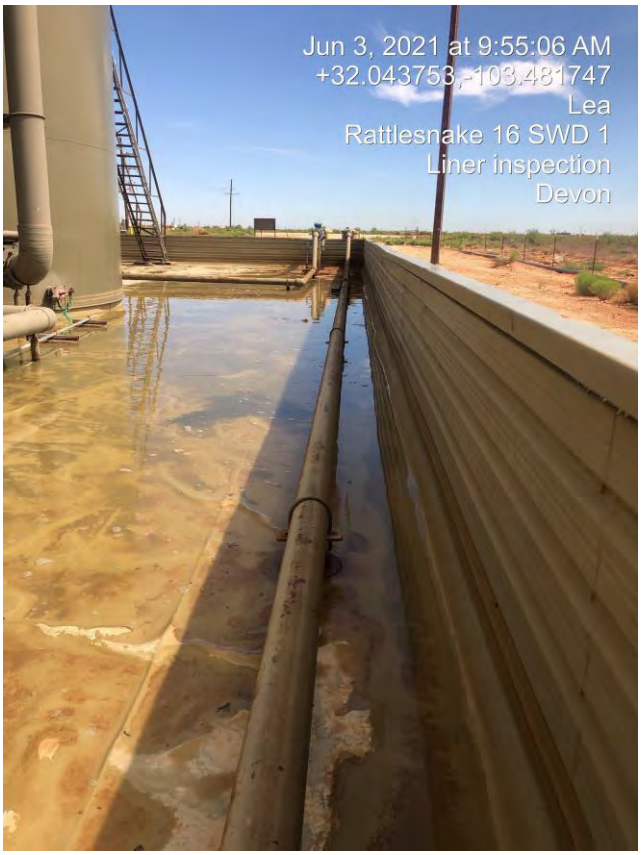
Liner inspection
Devon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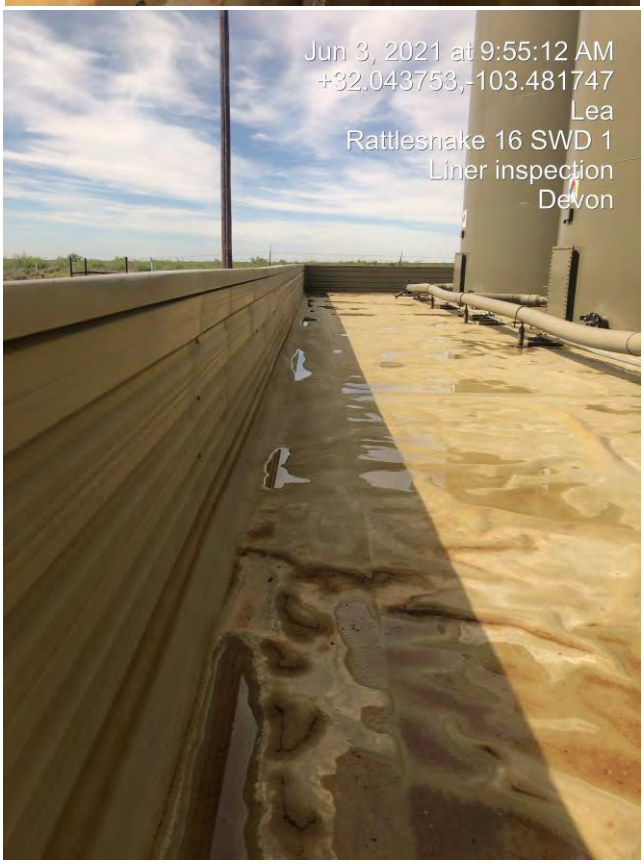
Lea
Rattlesnake 16 SWD 1
Liner inspection
Devon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+32.043753,-103.481747
Lea
Rattlesnake 16 SWD 1
Liner inspection
Devon

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 85509

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 85509
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	Closure approved. In future reports please include all communications with the OCD.	3/28/2022
chensley	NOTE: The OCD requires a copy of all correspondence relative to remedial projects be included in all proposal and/or final closure reports. Correspondence required to be included in reports may include, but not necessarily limited to, extension requests, liner inspection notifications, sample event notifications, spill/release/fire notifications, and variance requests. This will allow for notifications and requests to become a documented part of the incident file.	3/28/2022