May 1, 2020 Vertex Project #: 20E-00141-046

Spill Closure Report: Malachite 22 Fed 1H
Unit D, Section 22, Township 19 South, Range 33 East
County: Lea
API: 30-025-40318
Tracking Number: NRM2005651912

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 remediation for an oil release that occurred at Malachite 22 Fed 1H, API 30-025-40318 (hereafter referred to as "Malachite") on February 19, 2020. Devon provided immediate notification of the spill to New Mexico Oil Conservation Division (NM OCD) District 1 and the Bureau of Land Management (BLM), who own the land, on February 21, 2020, followed by submission of the initial C-141 Release Notification on February 25, 2020 (Attachment 1). The NM OCD tracking number assigned to this incident is NRM2005651912.

This letter provides a description of the spill assessment and remediation activities, 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 the final report to obtain approval from NM OCD for closure of this release.

Incident Description

On February 19, 2020, a release occurred at Devon's Malachite site when a high-level alarm failed, causing the oil tank to overflow. This incident resulted in the release of approximately 56 barrels (bbls) of oil into a lined secondary containment. Upon discovery of the release, the overflow of oil was stopped and a hydrovac truck was dispatched to the site to recover free liquids. All fluids were confined within the lined Spill Prevention Control and Countermeasures (SPCC) containment; no oil was released onto the pad, nor into undisturbed areas or waterways. Approximately 55 bbls of oil were recovered from the SPCC containment and removed for disposal off-site.

Site Characterization

The release at Malachite occurred on federally-owned land, N 32.6520462, W 103.6584854, approximately 30 miles west of Hobbs, New Mexico. The legal description for the site is Unit D, Section 22, Township 19 South, Range 33 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.

Malachite 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 release area on the western portion of the constructed wellpad where the storage tanks are located.

The surrounding landscape has historically been associated with low sandy dunes and is not prime farmland. The climate is semiarid, with average annual precipitation ranging between 10 and 12 inches. The plant community has the aspect of a grassland/shrub mix, dominated by dropseed grass species, bluestems and threeawns, with scattered shinnery oak and soapweed yucca. Bare ground and litter make up a significant portion of the ground cover (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 Malachite is comprised primarily of Qep-Eolian and piedmont deposits (Holocene to middle Pleistecene) characterized by interlayed eolian sand and piedmont deposits (New Mexico Bureau of Geology and Mineral Resources, 2020). The National Resources Conservation Service *Web Soil Survey* characterizes the soil at the site as Kermit-Palomas fine sands, which are associated with dunes resulting from calcareous sandy eolian deposits derived from sedimentary rock. This type of soil, which has between 3 and 12 percent slopes, is typically found at elevations of 3,000 to 4,400 feet above sea level. This type of soil tends to be excessively drained, with very low runoff and low available moisture 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 Malachite (United States Department of the Interior, Bureau of Land Management, 2020).

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is a draw located approximately 6.5 miles northeast of the site (New Mexico Office of the State Engineer, Interstate Stream Commission, 2020). There are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest recent well is a United States Geological Survey well from 2015 located 2.10 miles northwest of the site. Data for that well show a depth to groundwater at 131 feet below ground surface (bgs; United States Department of the Interior, United States Geological Survey, 2020). The Chevron Texaco *Depth to Ground Water Map* for Lea County confirms that depth to groundwater in the vicinity of Malachite is between 125 and 150 feet bgs (Chevron Texaco, 2005). 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 Malachite would not be subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC and the closure criteria for the site would be determined to be associated with the following constituent concentration limits.

Table 1. Closure Criteria for Soils Impacted by a Release

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

[1]Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)
[2]Benzene, toluene, ethylbenzene and xylenes (BTEX)

Remedial Actions

On March 18, 2020, after the production equipment within secondary containment had been cleaned, 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 March 20, 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 additional remediation action to address the release at Malachite. The secondary containment liner appeared to be intact and had the ability to contain the release in question, 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 this incident (NRM2005651912) 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 February 19, 2020, release at Malachite.

Should you have any questions or concerns, please do not hesitate to contact me at 505.506.0040 or ngordon@vertex.ca.

Sincerely,

Natalie Gordon
PROJECT MANAGER

Attachments

Attachment 1. NM OCD C-141 Report
Attachment 2. Site Schematic
Attachment 3. Site Characterization Research Documentation
Attachment 4. Required 48-hr Notification of Liner Inspection to Regulatory Agencies
Attachment 5. Daily Field Report(s) with Photographs

References

Chevron Texaco. (2005). *Lea Co. Depth to Ground Water, Water Wells, Facilities.*

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

New Mexico Office of the State Engineer, Interstate Stream Commission. (2020). *OSE POD Locations*. Retrieved from https://gis.ose.state.nm.us/gisapps/ose_pod_locations/

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 Cave/Karsts*. Retrieved from https://www.blm.gov/programs/recreation/recreation-programs/caves/new-mexico

United States Department of the Interior, United States Geological Survey. (2020). *Groundwater for New Mexico: Water Levels*. Retrieved from https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

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

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	NRM2005651912
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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (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		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2005651912
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?
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

☐ 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: _____ Title: _____

Signature: Kendra DeHoyos Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 02/25/2020

Measurements Of Standing Fluid	
Length(Ft)	125
Width(Ft)	35
Depth(in.)	1.083
Total Capacity without tank displacements (bbls)	70.32
No. of 500 bbl Tanks In Standing Fluid	5
No. of Other Tanks In Standing Fluid	
OD Of Other Tanks In Standing Fluid(feet)	
Total Volume of standing fluid accounting for tank displacement	55.17

State of New Mexico
Oil Conservation Division

Incident ID	NRM2005651912
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?	131 (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.
- NA Field data
- NA 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
- NA Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- NA 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	NRM2005651912
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/30/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2005651912
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.***

[X] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[X] 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)

[NA] Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

[X] 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: 10/30/2020

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: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2

LEGEND

SPILL AREA

WELLPAD

0 25 50 100 ft

SCALE 1:900

Notes: Aerial Image from ESRI Digital Globe 2016

devon

Site Schematic
Malachite 22 Fed 1H

VERTEX

DRAWN:	NM
APPROVED:	JC
DATE:	JAN 22/20

FIGURE: 1

VERSATILITY. EXPERTISE.

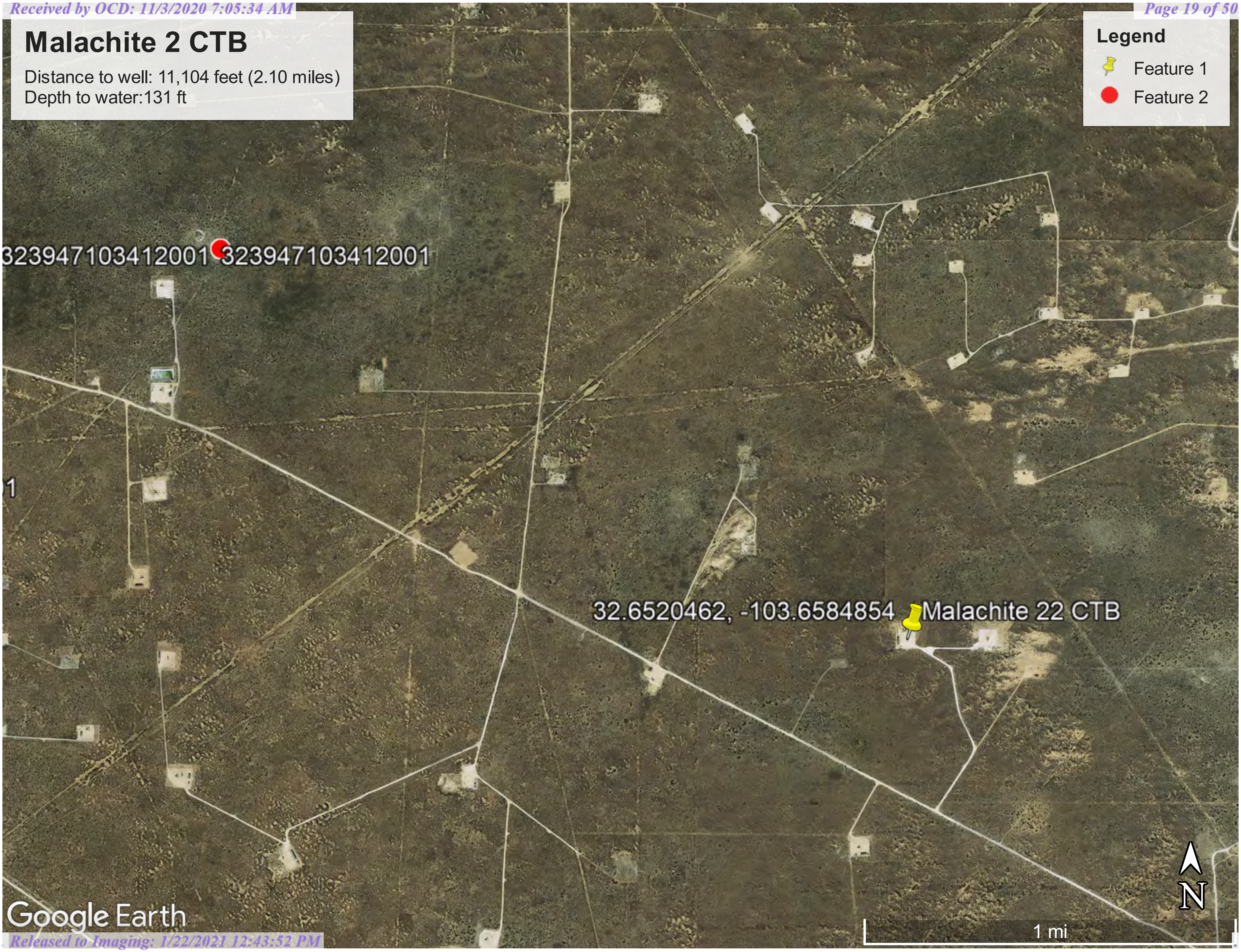
ATTACHMENT 3

Table 1. Closure Criteria Determination			
Site Name: Malachite 22 Fed 1H			
Spill Coordinates: 32.6520462. -103.6584854		X: 625811.76	Y: 3613508.57
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	**131**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	34,320	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	12,930	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	12,647	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	5,356	feet
	ii) Within 1000 feet of any fresh water well or spring	5,356	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	36,755	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	undetermined	year
NMAC 19.15.29.12 E (Table 1) Closure Criteria		>100'	<50' 51-100' >100'

Column1
Critical
High
Medium
Low

Column1
Yes
No

<50'
51-100'
>100'


Malachite 2 CTB
Distance to well: 11,104 feet (2.10 miles)
Depth to water:131 ft
Legend
Feature 1
Feature 2
323947103412001 323947103412001
32.6520462, -103.6584854
Malachite 22 CTB
Google Earth
N
1 mi

National Water Information System: Web Interface

USGS Water Resources

Data Category: Site Information ▼ Geographic Area: United States ▼ GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

USGS 323947103412001 19S.33E.17.11224

Available data for this site SUMMARY OF ALL AVAILABLE DATA ▼ GO

Well Site

DESCRIPTION:

Latitude 32°40'01.8", Longitude 103°41'24.3" NAD83
Lea County, New Mexico , Hydrologic Unit 13060011
Well depth: 131 feet
Land surface altitude: 3,654 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1965-12-08	2015-12-17	9
Revisions	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

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Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility Plug-Ins 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=323947103412001

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2020-02-11 16:06:15 EST
0.42 0.41 caww02

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	Depth Well	Depth Water	Water Column
CP 00810 POD1		CP	LE		3	3	08	19S	33E	622675	3615385*	3657	110		
CP 00658 POD1		CP	LE	2	2	4	26	19S	33E	628857	3611125*	3863	100		
CP 00805 POD1		CP	LE		3	1	18	19S	33E	621057	3614563*	4871	450		
L 07023		L	LE	2	3	3	32	19S	33E	622840	3609047*	5356	262	185	77
CP 00809 POD1		CP	LE		2	1	05	19S	33E	623048	3618206*	5454	300		
CP 00653 POD1		CP	LE		4	4	04	20S	33E	625573	3607367*	6141	60		
CP 00812 POD1		CP	LE		4	4	01	19S	32E	620623	3616973*	6241	200		
CP 00813 POD1		CP	LE			1	33	18S	33E	624441	3619644*	6291	300		
CP 00748 POD1		CP	LE			2	01	20S	33E	630197	3608428*	6707			
CP 00317		CP	LE	3	4	3	05	20S	33E	623054	3607235*	6848	680	325	355
L 07213		L	LE	4	1	4	31	19S	34E	631700	3609351*	7205	160	110	50
CP 00875		CP	LE	3	4	3	05	19S	34E	632592	3617013*	7634	200		
L 03454		L	LE		2	2	30	18S	33E	622200	3621422*	8703	100	35	65
CP 01584 POD1		CP	LE	2	1	3	30	18S	34E	630654	3620788	8746	500		
CP 00075	O	CP	LE		2	4	34	19S	32E	617502	3609301	9312	575		
CP 00811 POD1		CP	LE		4	4	09	19S	34E	635132	3615542*	9540	50		
CP 00750 POD1		CP	LE		3	4	07	20S	34E	631639	3605834*	9632	320		
CP 00806 POD1		CP	LE		4	4	04	19S	34E	635109	3617151*	9987	50		

Average Depth to Water: **163 feet**

Minimum Depth: **35 feet**

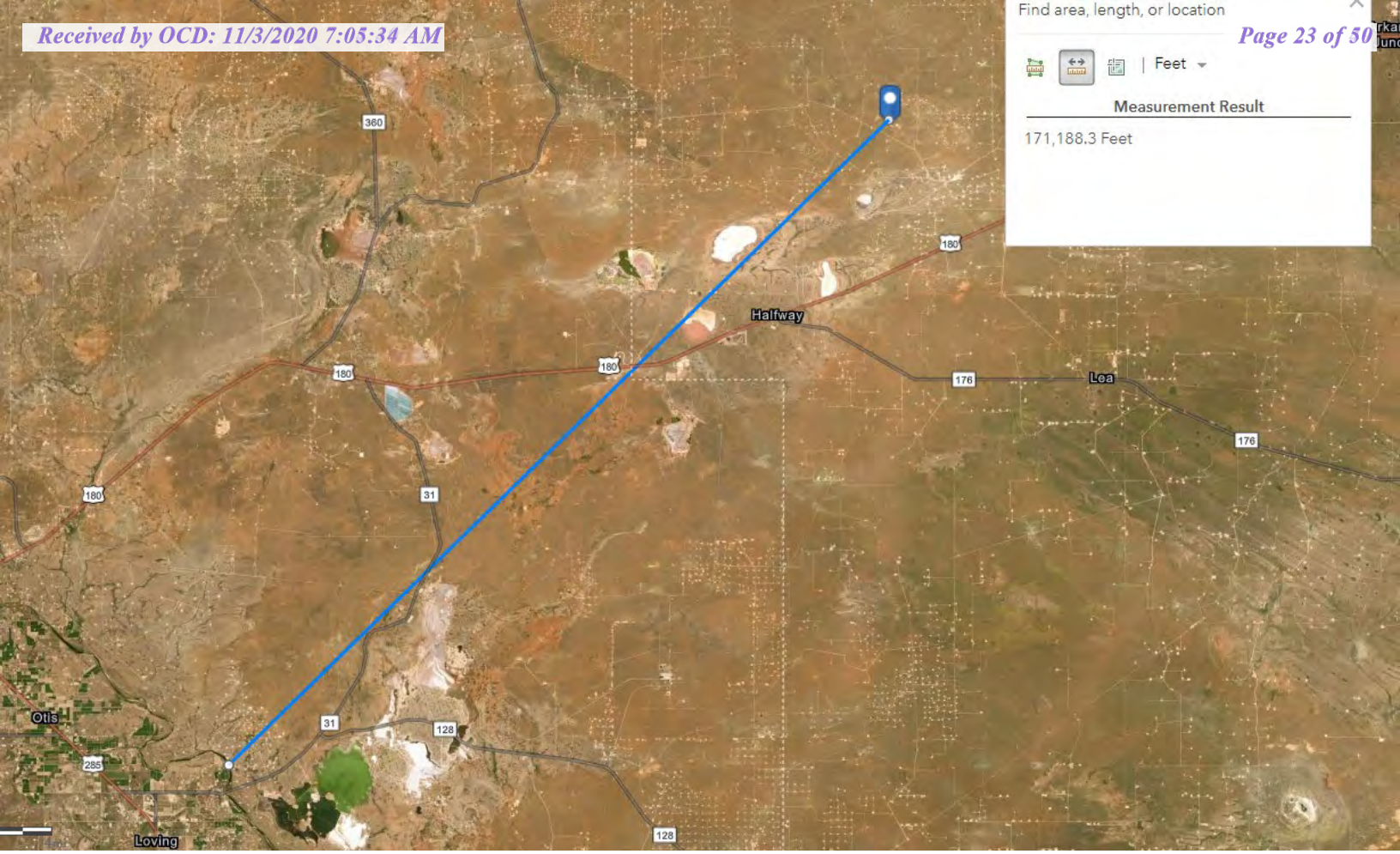
Maximum Depth: **325 feet**

Record Count: 18

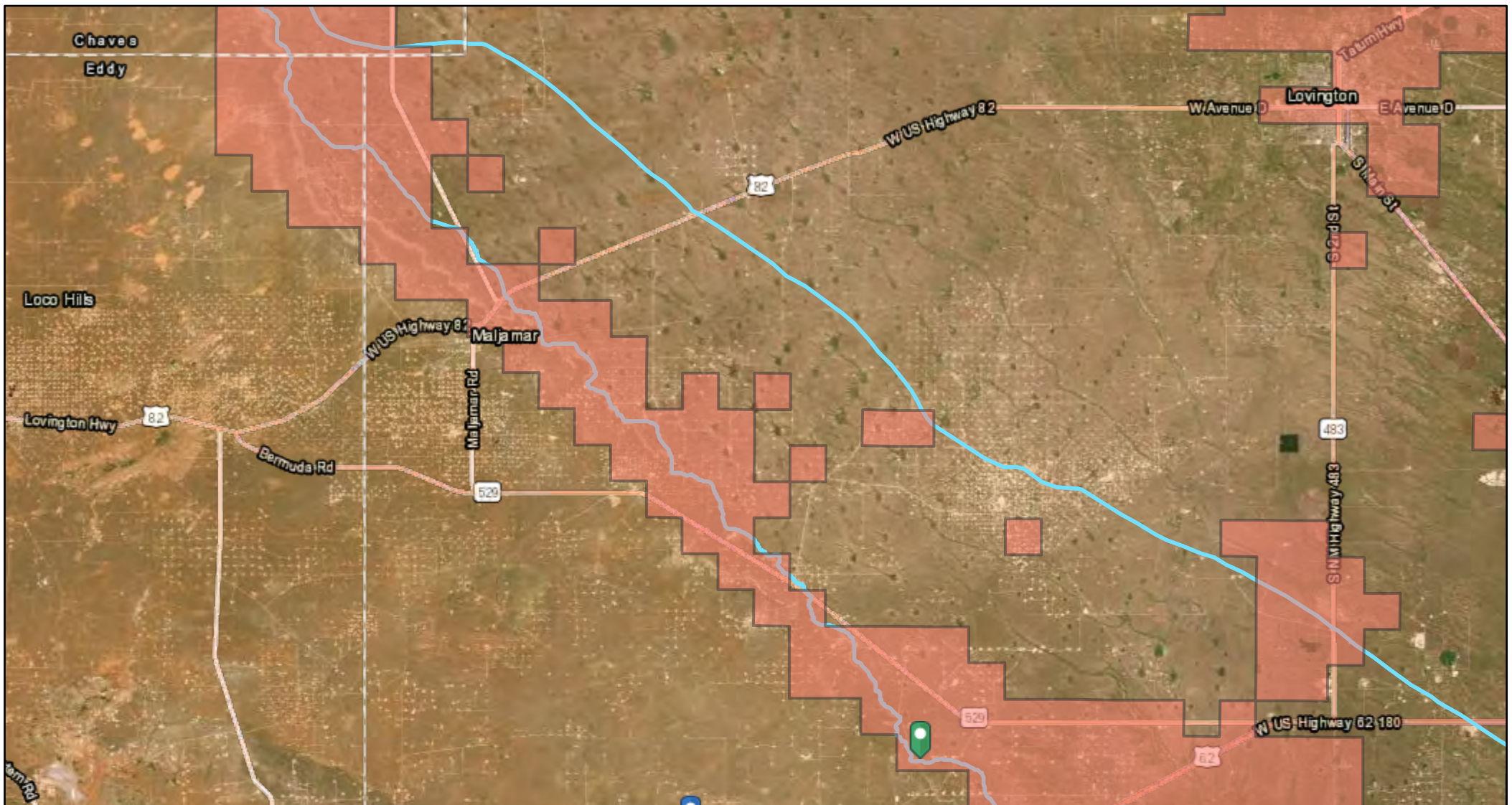
UTMNAD83 Radius Search (in meters):

Easting (X): 625811.82 **Northing (Y):** 3613503.45 **Radius:** 10000

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


Find area, length, or location
Feet
Measurement Result
171,188.3 Feet
360
180
Halfway
180
180
176
Lea
176
180
31
Otis
285
31
128
128
Loving

Malachite 22 CTB 1



2/13/2020, 1:43:59 PM

Water Right Regulations

- Critical Management Area - Guidelines
- OSE District Boundary
- Surface Water Sub Basins

1:288,895

0 2.75 5.5 11 mi

0 4.5 9 18 km

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

U.S. Fish and Wildlife Service
National Wetlands Inventory

Malachite 22 Fed 1H: Lake 12,930 ft

January 18, 2020

Wetlands

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

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service
National Wetlands Inventory

Malachite 22 Fed 1H: Lake 12,930 ft

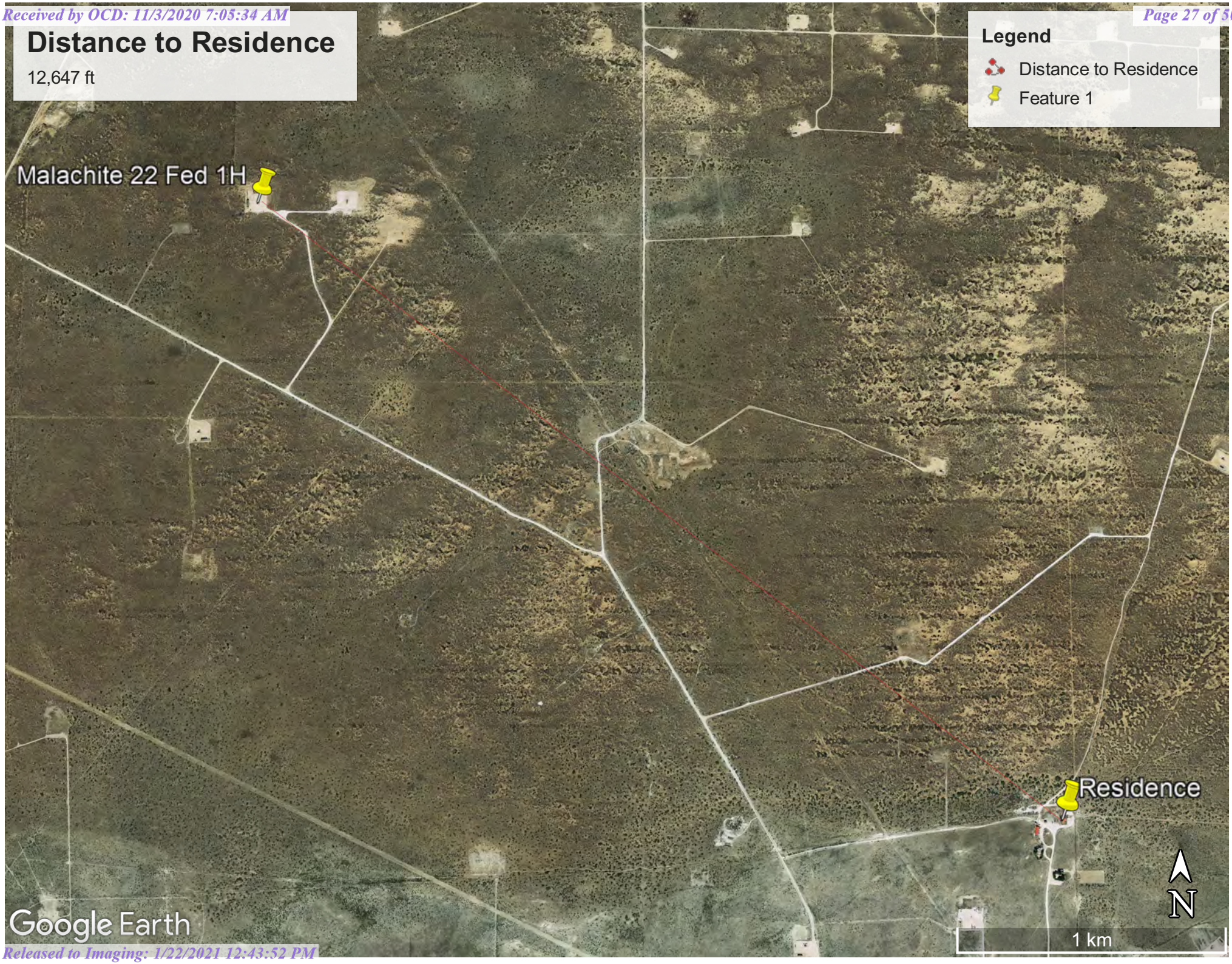
January 18, 2020

Wetlands

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

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper


Distance to Residence
12,647 ft
Legend
Distance to Residence
Feature 1
Malachite 22 Fed 1H
Residence
N
1 km
Google Earth

New Mexico Office of the State Engineer

Wells with Well Log Information

(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 Sub-basin Code	County	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
L 07023	L	LE	Shallow	2 3 3	32	19S	33E	622840	3609047*	5356	11/12/1970	11/15/1970	11/19/1970	262	185	MURRELL ABBOTT	46
CP 00748 POD1	CP	LE	Shallow	2	01	20S	33E	630197	3608428*	6707	06/01/1990	06/02/1990	05/31/1991			COLLIS, ROBERT E. (LD)	1184
CP 00317	CP	LE	Shallow	3 4 3	05	20S	33E	623054	3607235*	6848	02/05/1966	02/17/1966	02/24/1966	680	325	ABBOTT, MURRIEL	46
L 07213	L	LE	Shallow	4 1 4	31	19S	34E	631700	3609351*	7205	05/04/1974	05/05/1974	05/15/1974	160	110		46
CP 00875	CP	LE		3 4 3	05	19S	34E	632592	3617013*	7634	01/07/1998	01/07/1998	01/29/1998	200		MARSH, KENNETH R.	586
L 03454	L	LE	Shallow	2 2	30	18S	33E	622200	3621422*	8703	03/29/1957	03/30/1957	04/17/1957	100	35	MUSSELWHITE, O.R.	99
CP 01584 POD1	CP	LE		2 1 3	30	18S	34E	630654	3620788	8746	04/05/2016	04/06/2016	05/23/2017	500		GOERTZEN, JOHN	1611
CP 00750 POD1	CP	LE		3 4	07	20S	34E	631639	3605834*	9632	06/20/1990	06/20/1990	07/26/1990	320		GLENN, CLARK A."CORKY" (LD)	421

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 625811.82 **Northing (Y):** 3613503.45 **Radius:** 10000

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Malachite: Wetland 36,755 ft

January 17, 2020

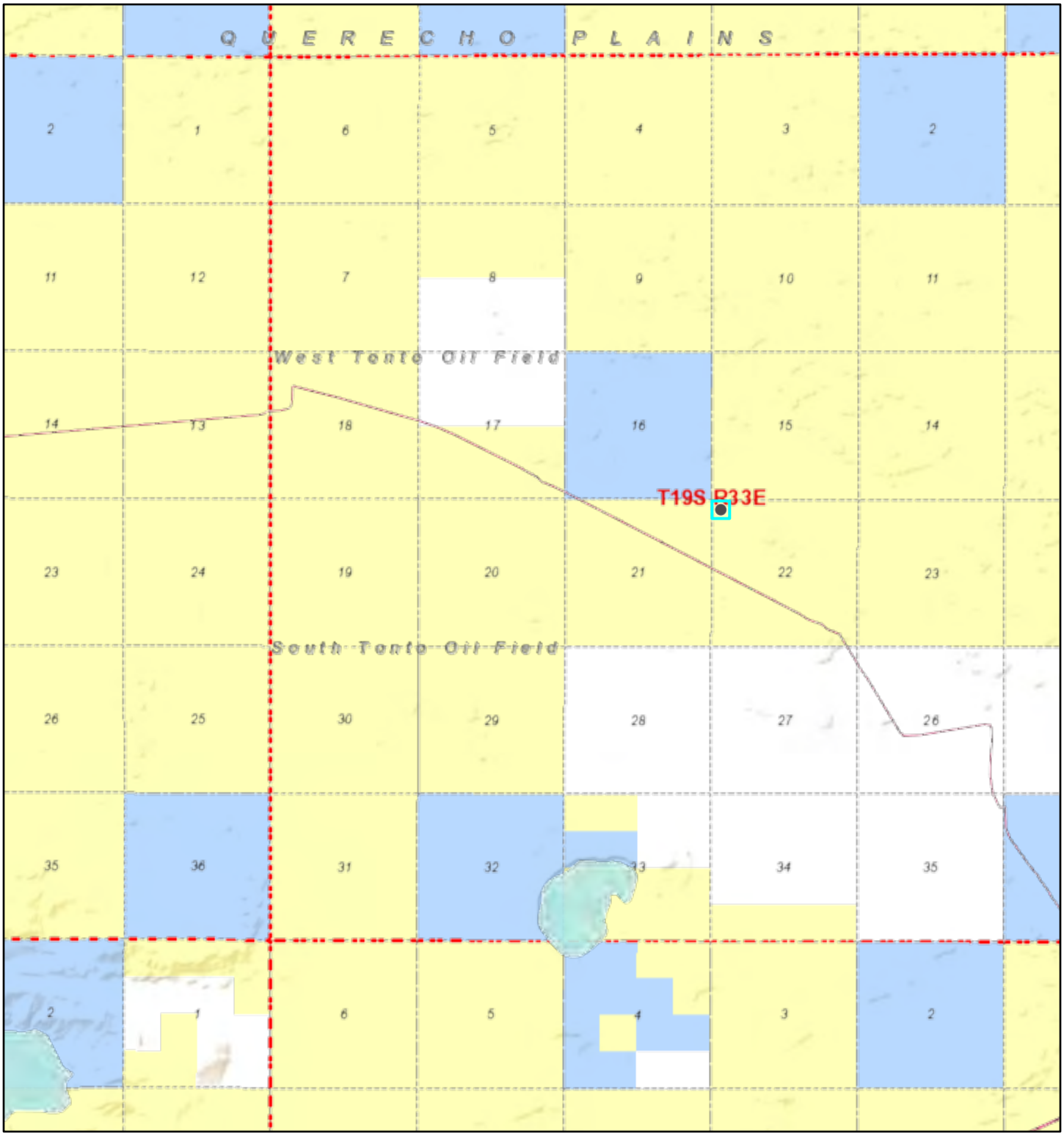
Wetlands

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

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Active Mines near Malachite 22 Fed 1H



1/18/2020, 11:59:16 AM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

U.S. Bureau of Land Management - New Mexico State Office, Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

EMNRD MMD GIS Coordinator

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

National Flood Hazard Layer FIRMette

FEMA

32°39'22.35"N

103°39'49.33"W

32°38'52.05"N

103°39'11.87"W

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/16/2020 at 7:57:59 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 6416	q 4	Sec	Tws	Rng	X	Y	Distance
CP 00810	CP	PLS	3	KENNETH SMITH	LE	CP 00810 POD1				Shallow	3	3	08	19S	33E	622675	3615385*	3657
CP 00658	CP	PLS	2	KENNETH SMITH	LE	CP 00658 POD1				Shallow	2	2 4	26	19S	33E	628857	3611125*	3863
CP 00805	CP	PLS	3	KENNETH SMITH	LE	CP 00805 POD1				Shallow	3	1	18	19S	33E	621057	3614563*	4871
CP 00880	CP	OIL	0	TRIUMPH EXPLORATION, INC.	LE	CP 00880 POD1					3	3 3	19	19S	33E	620988	3612048*	5038
CP 00071	CP	OIL	7	KENNETH SMITH	LE	CP 00071 POD1					3	1 1	18	19S	33E	620950	3614864*	5048
CP 00883	CP	SRO	0	ROBINSON OIL INC.	LE	CP 00883 POD1						4 3	30	19S	33E	621517	3610545*	5215
CP 01163	CP	MON	0	BUREAU OF LAND MANAGEMENT	LE	CP 01163 POD5							30	19S	33E	621510	3610489	5252
L 07023	L	PRO	0	CACTUS DRILLING CORPORATION	LE	L 07023				Shallow	2	3 3	32	19S	33E	622840	3609047*	5356
CP 01163	CP	MON	0	BUREAU OF LAND MANAGEMENT	LE	CP 01163 POD2							30	19S	33E	621209	3610646	5417
CP 00809	CP	PLS	3	KENNETH SMITH	LE	CP 00809 POD1				Shallow	2	1	05	19S	33E	623048	3618206*	5454
CP 01163	CP	MON	0	BUREAU OF LAND MANAGEMENT	LE	CP 01163 POD6							25	19S	32E	620705	3610639	5854
					LE	CP 01163 POD8							34	18S	33E	627051	3619490	6114
CP 00653	CP	PLS	2	MARK SMITH	LE	CP 00653 POD1				Shallow	4	4	04	20S	33E	625573	3607367*	6141
CP 00812	CP	PLS	3	KENNETH SMITH	LE	CP 00812 POD1				Shallow	4	4	01	19S	32E	620623	3616973*	6241
CP 00813	CP	PLS	3	KENNETH SMITH	LE	CP 00813 POD1				Shallow		1	33	18S	33E	624441	3619644*	6291
CP 01163	CP	MON	0	BUREAU OF LAND MANAGEMENT	LE	CP 01163 POD4							01	19S	32E	620623	3617379	6476
					LE	CP 01163 POD7							34	18S	33E	626946	3619897	6493
CP 00748	CP	PRO	0	GRACE DRILLING CO.	LE	CP 00748 POD1				Shallow		2	01	20S	33E	630197	3608428*	6707

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

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code Grant	Source	q 6416 4	Sec	Tws	Rng	X	Y	Distance
CP 00317	CP	PRO	0	PAN AMERICAN PET. CORPORATION	LE	CP 00317			Shallow	3 4 3	05	20S	33E	623054	3607235*	6848
CP 01163	CP	MON	0	BUREAU OF LAND MANAGEMENT	LE	CP 01163 POD9					27	18S	33E	627037	3620271	6878
					LE	CP 01163 POD1					01	19S	32E	620229	3617878	7092
L 07213	L	PRO	0	MCVAY DRILLING COMPANY	LE	L 07213			Shallow	4 1 4	31	19S	34E	631700	3609351*	7205
CP 01163	CP	MON	0	BUREAU OF LAND MANAGEMENT	LE	CP 01163 POD3					01	19S	32E	619904	3618078	7471
CP 01583	CP	EXP	0	T H MCELVAIN OIL & GAS LLLP	LE	CP 01583 POD1				2 1 3	31	18S	34E	630771	3619263	7601
CP 00875	CP	PRO	0	MATADOR PETROLEUM INC.	LE	CP 00875				3 4 3	05	19S	34E	632592	3617013*	7634
CP 00466	CP	PRO	0	GULF OIL CORPORATION	LE	CP 00466				2 3 3	16	19S	34E	634046	3614012*	8249
L 03454	L	DOM	3	W H ELLISON	LE	L 03454			Shallow	2 2	30	18S	33E	622200	3621422*	8703
CP 01584	CP	EXP	0	T H MCELVAIN OIL & GAS LLLP	LE	CP 01584 POD1				2 1 3	30	18S	34E	630653	3620788	8746
CP 00075	CP	OIL	20	G. KELLY STOUT	LE	CP 00075 POD1				2 4	34	19S	32E	617515	3609321	9291
CP 01482	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00075 POD1				2 4	34	19S	32E	617515	3609321	9291
CP 01483	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00075 POD1				2 4	34	19S	32E	617515	3609321	9291
CP 01484	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00075 POD1				2 4	34	19S	32E	617515	3609321	9291
CP 00074	CP	OIL	20	G. KELLY STOUT	LE	CP 00074 POD1				1 2 4	34	19S	32E	617497	3609334	9301
CP 01478	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00074 POD1				1 2 4	34	19S	32E	617497	3609334	9301
CP 01479	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00074 POD1				1 2 4	34	19S	32E	617497	3609334	9301
CP 00073	CP	OIL	20	G. KELLY STOUT	LE	CP 00073 POD1				1 2 4	34	19S	32E	617501	3609320	9303
CP 01475	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00073 POD1				1 2 4	34	19S	32E	617501	3609320	9303
CP 01476	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00073 POD1				1 2 4	34	19S	32E	617501	3609320	9303
CP 01477	CP	PRO	0	CONCHO OIL & GAS	LE	CP 00073 POD1				1 2 4	34	19S	32E	617501	3609320	9303
CP 00078	CP	OIL	50	G. KELLY STOUT	LE	CP 00078 POD1				2 4	34	19S	32E	617502	3609301*	9312

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

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code Grant	Source	q 6416	q 4	q	Sec	Tws	Rng	X	Y	Distance
CP 01479	CP	PRO	0	CONCHO OIL & GAS	ED	CP 00074				2	4		34	19S	32E	617502	3609301	9312
CP 01480	CP	PRO	0	CONCHO OIL & GAS	ED	CP 00074				2	4		34	19S	32E	617502	3609301	9312
CP 00811	CP	PLS	3	KENNETH SMITH	LE	CP 00811 POD1			Shallow	4	4		09	19S	34E	635132	3615542*	9540
CP 00808	CP	PLS	3	KENNETH SMITH	LE	CP 00808 POD1				4	4		26	18S	32E	618973	3620178*	9556
CP 00750	CP	PRO	0	TXO PROD.	LE	CP 00750 POD1				3	4		07	20S	34E	631639	3605834*	9632
CP 01443	CP	MON	0	COG OPERATING, LLC	LE	CP 01443 POD6				3	3	1	24	18S	33E	628913	3622682	9688
					LE	CP 01443 POD1				4	3	1	24	18S	33E	629078	3622628	9692
					LE	CP 01443 POD2				3	3	1	24	18S	33E	628957	3622679	9700
					LE	CP 01443 POD5				4	3	1	24	18S	33E	629142	3622715	9795
CP 01586	CP	STK	3	KENNETH SMITH INC	LE	CP 01586 POD1				3	4	4	04	19S	34E	634972	3616983	9798
CP 01443	CP	MON	0	COG OPERATING, LLC	LE	CP 01443 POD3				1	3	1	24	18S	33E	628940	3622790	9799
					LE	CP 01443 POD4				2	3	1	24	18S	33E	629039	3622803	9844
CP 00806	CP	PLS	3	KENNETH SMITH	LE	CP 00806 POD1			Shallow	4	4		04	19S	34E	635109	3617151*	9987

Record Count: 53

UTMNAD83 Radius Search (in meters):

Easting (X): 625811.82 **Northing (Y):** 3613503.45 **Radius:** 10000

Sorted by: Distance

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

Soil Map—Lea County, New Mexico
(Malachite 22 Fed 1H Soil Map)

Map Scale: 1:820 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

Soil Map—Lea County, New Mexico
(Malachite 22 Fed 1H Soil Map)

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 16, Sep 15, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 18, 2016—Nov 20, 2017

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KD	Kermit-Palomas fine sands, 0 to 12 percent slopes	2.7	100.0%
Totals for Area of Interest		**2.7**	**100.0%**

Lea County, New Mexico

KD—Kermit-Palomas fine sands, 0 to 12 percent slopes

Map Unit Setting

National map unit symbol: dmpv
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 12 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: 70 percent
Palomas and similar soils: 20 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: 3 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural 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
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A
Ecological site: Deep Sand (R042XC005NM)
Hydric soil rating: No

Description of Palomas

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: Alluvium derived from sandstone

Typical profile

A - 0 to 16 inches: fine sand
Bt - 16 to 60 inches: sandy clay loam
Bk - 60 to 66 inches: sandy loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 50 percent
Gypsum, maximum in profile: 1 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Minor Components

Maljamar

Percent of map unit: 4 percent
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Pyote

Percent of map unit: 4 percent
Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

Dune land

Percent of map unit: 1 percent
Hydric soil rating: No

Palomas

Percent of map unit: 1 percent
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 16, Sep 15, 2019

ATTACHMENT 4

Natalie Gordon

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Wednesday, March 18, 2020 10:43 AM
To: Natalie Gordon
Subject: Fwd: NRM2005651912: Malachite 22 Fed 1H 48-hr Liner Inspection Notification - Devon Energy

---------- Forwarded message ---------
From: **Dhugal Hanton** <vertexresourcegroupusa@gmail.com>
Date: Wed, Mar 18, 2020 at 10:42 AM
Subject: NRM2005651912: Malachite 22 Fed 1H 48-hr Liner Inspection Notification - Devon Energy
To: Bratcher, Mike, EMNRD <Mike.Bratcher@state.nm.us>, <emnrd-ocd-district1spills@state.nm.us>, <ramona.marcus@state.nm.us>, <blm_nm_cfo_spill@blm.gov>, Kelsey <kwade@blm.gov>
Cc: <tom.bynum@dvn.com>, <wesley.mathews@dvn.com>, <Lupe.Carrasco@dvn.com>

All,

Please accept this email as 48-hr notification that Vertex Resource Services Inc. has scheduled a liner inspection to be conducted at Malachite 22 Fed 1H battery for Incident NRM2005651912, DOR: 02/19/2020.

On Friday, March 20, 2020 at approximately 11:00 a.m., Thomas O'Dell of Vertex will be onsite to perform the liner inspection. He can be reached at 575-725-1809. If you need directions to the site, please do not hesitate to contact him. If you have any questions or concerns regarding this notification, please give me a call at 505-506-0040.

Thank you,
Natalie

ATTACHMENT 5

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	3/20/2020
Site Location Name:	Malachite 22 Fed 1H	Report Run Date:	3/20/2020 10:00 PM
Project Owner:	Wesley Mathews	File (Project) #:	20E-00141
Project Manager:	Natalie Gordon	API #:	30-025-40318
Client Contact Name:	Amanda Davis	Reference	NRM2005651912: 2/19/20 PW Release (56bbls)
Client Contact Phone #:	(575) 748-0176		

Summary of Times

Left Office	3/20/2020 11:55 AM
Arrived at Site	3/20/2020 1:17 PM
Departed Site	3/20/2020 2:35 PM
Returned to Office	3/20/2020 3:28 PM

Summary of Daily Operations

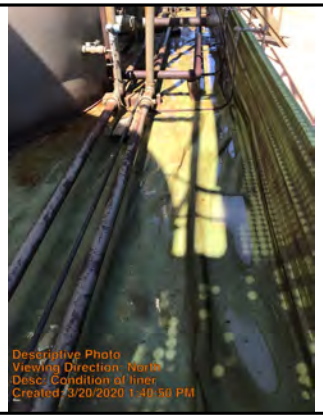
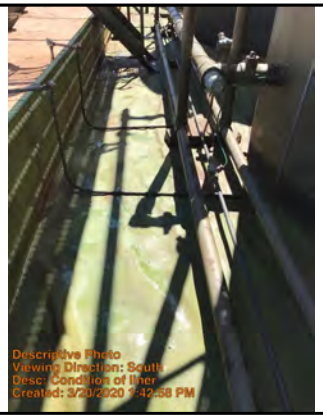
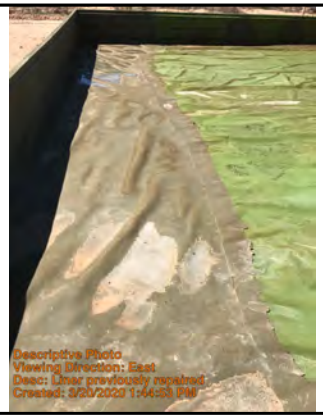
13:21 Liner inspection

Next Steps & Recommendations

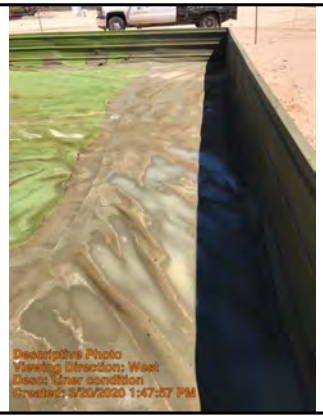
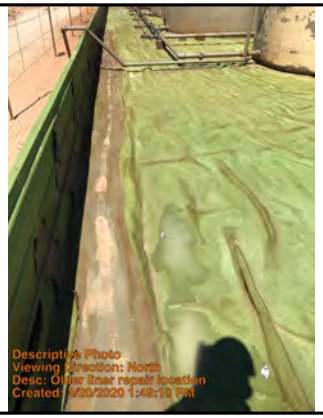
1

Daily Site Visit Report

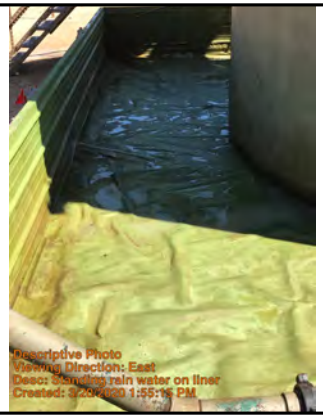
Site Photos

Viewing Direction: North	**Viewing Direction**: West
	
Condition of liner	Liner condition
Viewing Direction: South	**Viewing Direction**: East
	
Condition of liner	Liner previously repaired

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: West
	
Previous liner repair	Liner condition
Viewing Direction: North	**Viewing Direction**: West
	
Older liner repair location	Liner condition

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: North
	
Old repair section in liner	Liner holding standing water from rain event
Viewing Direction: South	**Viewing Direction**: East
	
Liner integrity	Standing rain water on liner

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: West
	
Liner holding rainwater	Liner condition

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Tommy Odell

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 11022

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
PIMA ENVIRONMENTAL SERVICES, L 1601 N. Turner Suite 500 Hobbs, NM88240	329999	11022	C-141

OCD Reviewer	Condition
ceads	None