Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2203247689
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.***

☒ N/A 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)

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

☒ N/A 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: Clinton Talley Title: RES Specialist

Signature: Clint Talley Date: 01/12/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

OCD Only

Received by: Jocelyn Harimon Date: 01/12/2023

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: Robert Hamlet Date: 4/13/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

VERTEX

December 16, 2022 Vertex Project #: 22E-04122

Spill Closure Report: Jimmy Kone Tank Battery
Section 5, Township 24 South, Range 28 East
County: Eddy
Incident Report: nAPP2203247689

Prepared For: **Matador Production Company**
One Lincoln Centre
Dallas, Texas 75240

New Mexico Oil Conservation Division – District 2 – Artesia
811 South 1st Street
Artesia, New Mexico 88210

Matador Production Company (Matador) retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for a release of produced water into the concrete lined containment at Jimmy Kone Tank Battery, Incident nAPP2203247689 (hereafter referred to as "Jimmy Kone"). Matador provided spill notification to the New Mexico Oil Conservation District (NMOCD) District 2, via submission of an initial C-141 Release Notification (Attachment 1). This letter provides a description of the Spill Assessment and includes a request for Spill Closure. The spill area is located at N 32.24622, W -104.10309.

Background

The site is located approximately 2.34 miles northwest of Malaga, New Mexico (Google Inc., 2022). The legal location for the site is Section 5, Township 24 South and Range 28 East in Eddy County, New Mexico. The spill area is located on private property.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2022) indicates the site's surface geology is comprised primarily of Qa – Alluvium (Holocene to upper Pleistocene). The Natural Resources Conservation Service *Web Soil Survey* characterizes the predominant soil texture on the site is Karro loam, which is characterized by deep soil with surface layers being fine sand, very fine sand, silty clay loam, very fine sandy loam, clay loam and loam. This type of soil tends to be well-drained with medium runoff, high available water storage in the soil profile, and rare and infrequent erosion. (United States Department of Agriculture, Natural Resources Conservation Service, 2022).

The surrounding landscape has historically been associated with plains, alluvial fans and fan piedmont adjacent to playa lakes or playa rims and is considered farmland of statewide importance. The climate is semi-arid, with average annual precipitation ranging between 8 and 13 inches. The plant community has historically been dominated by blue grama and other grasses. While the landscape generally has a grassland aspect, shrubs and half shrubs are noticeable and evenly scattered. Grasses account for approximately 65 to 80 percent of the total potential production. Overgrazing and/or extended drought (United States Department of Agriculture, Natural Resources Conservation Service, 2022).

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 Mexico Administrative Code (NMAC; New Mexico Oil Conservation Division, 2018), is the Pecos River located approximately 3 miles northeast of the site (United States Fish and Wildlife Service, 2020). Multiple dry agricultural water conveyance structures, such as canals and ditches, are present in the vicinity. At Jimmy Kone, 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.

Incident Description

The spill occurred on February 1, 2022, due to valve failure on the tank. The spill was reported on February 1, 2022 and involved the release of approximately 450 barrels (bbl.) of produced water into the lined containment. Approximately 450 bbl. of free fluid was removed during initial spill clean-up. The NMOCD C-141 Report: nAPP2203247689 is included in Attachment 1. The daily field report (DFR) and site photographs are included in Attachment 2.

Closure Criteria Determination

The depth to groundwater was determined using information from the United States Department of the Interior, United States Geological Survey (2022) National Water Information Mapping System. A 0.5-mile search radius was used to determine groundwater depth. The closest recorded depth to groundwater was determined to be 37 feet below ground surface (bgs) and 0.18 miles from the site (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2022). Documentation used in Closure Criteria Determination research is included in Attachment 3.

Closure Criteria Worksheet			
Site Name: Jimmy Kone Tank Battery			
Spill Coordinates:		**X: 32.24622**	**Y: -104.10309**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**37**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3,861	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	19,749	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	2,634	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**	971	feet
	ii) Within 1000 feet of any fresh water well or spring	**971**	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	406	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	500	year
11	Soil Type	Karro Loam	
12	Ecological Classification	Limy	
13	Geology	Qa	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 1.

Table 1. Closure Criteria for Soils Impacted by a Release		
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	**Constituent**	**Limit**
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS - Total dissolved solids, TPH - Total petroleum hydrocarbons = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO), BTEX - Benzene, toluene, ethylbenzene, and xylenes

Remedial Actions Taken

A site inspection of the spill was completed on December 6, 2022, which identified the area of the spill specified in the initial C-141 Report. The DFR associated with the site inspection is included in Attachment 2.

Notification that a liner inspection was scheduled to be completed was provided to the NMOCD on December 1, 2022. Visual observation of the liner was completed on all sides and the base of the containment, around equipment, and of all seams in the liner. A rain event left standing water inside the lined containment, further proving fluid would not have breached through the containment. As evidenced in the DFR (Attachment 2), liner integrity was confirmed, and the Liner Inspection Notification email is included in Attachment 4.

Closure Request

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

Vertex requests that this incident (nAPP2203247689) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Matador certifies that all information in this report and the attachments are correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the February 1, 2022, release at Jimmy Kone Tank Battery.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.361.9880 or mpeppin@vertex.ca.

December 16, 2022

Monica Peppin, A.S. Date
PROJECT MANAGER, REPORTING

Attachments

Attachment 1. NMOCD C-141 Report
Attachment 2. Daily Field Reports with Pictures
Attachment 3. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
Attachment 4. Required 48-hr Notification of Liner Inspection to Regulatory Agencies

References

Google Inc. (2022). *Google Earth Pro* (Version 7.3.4) [Software]. Retrieved from http://www.google.com/earth

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

New Mexico Mining and Minerals Division. (2020). *Coal Mine Resources in New Mexico*. Retrieved from http://www.emnrd.state.nm.us/MMD/gismapminedata.html

New Mexico Oil Conservation Division. (2018). N*ew Mexico Administrative Code – Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.

New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2022). *Water Column/Average Depth to Water Report.* Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html

United States Department of Agriculture, Natural Resources Conservation Service. (2022). *Web Soil Survey.* Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

United States Department of Homeland Security, FEMA Flood Map Service Center. (2020). Retrieved from https://msc.fema.gov/portal/search?AddressQuery=malaga%20new%20mexico#searchresultsanchor

United States Department of the Interior, Bureau of Land Management. (2018). *New Mexico Cave/Karsts.* Retrieved from https://www.blm.gov/programs/recreation/recreation-programs/caves/new-mexico.

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

Limitations

This report has been prepared for the sole benefit of Matador Production Company. 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 Matador Production Company. 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	nAPP2203247689
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Production Company	OGRID: 228937
Contact Name: Arsenio T. Jones	Contact Telephone: 575-361-4333
Contact email: arsenio.jones@matadorresources.com	Incident # *(assigned by OCD):* nAPP2203247689
Contact mailing address: One Lincoln Centre Dallas, TX 75240	

Location of Release Source

Latitude 32.24622 Longitude -104.10309 (location of source)
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Jimmy Kone Tank Battery	Site Type: Production Battery
Date Release Discovered: 02/01/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	5	24S	28E	Eddy

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) 450 bbl	Volume Recovered (bbls) 450 bbls
	Is the concentration of dissolved chloride 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: 4" line interior side of lined containment had a crack causing a failure and release of 450 bbls of produced water. No fluid left the containment and all fluid was recovered.		

State of New Mexico
Oil Conservation Division

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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? The Release was > 50bbl
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notification was provided to the NMOCD on 2/1/2022 by Arsenio Jones of Matador (online).	

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: Arsenio T. Jones Title: Regulatory, Environmental and Safety Specialist

Signature: _____ Date: 2/01/2022

email: arsenio.jones@matadorresources.com Telephone: 575-361-4333

OCD Only

Received by: Ramona Marcus Date: 2/10/2022

Incident ID	nAPP2203247689
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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?	37 (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.***

- ☒ N/A Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ X Field data
- ☒ N/A Data table of soil contaminant concentration data
- ☒ X Depth to water determination
- ☒ X Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ N/A Boring or excavation logs
- ☒ X Photographs including date and GIS information
- ☒ X Topographic/Aerial maps
- ☒ N/A 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

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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: Clinton Talley Title: RES Specialist

Signature: Clint Talley Date: 01/12/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

OCD Only

Received by: Jocelyn Harimon Date: 01/12/2023

Incident ID	nAPP2203247689
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Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- N/A Detailed description of proposed remediation technique
- N/A Scaled sitemap with GPS coordinates showing delineation points
- N/A Estimated volume of material to be remediated
- N/A Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- N/A Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Clinton Talley Title: RES Specialist

Signature: Clint Talley Date: 01/12/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

OCD Only

Received by: Jocelyn Harimon Date: 01/12/2023

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2203247689
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.***

☒ N/A 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)

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

☒ N/A 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: Clinton Talley Title: RES Specialist

Signature: Clint Talley Date: 01/12/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

OCD Only

Received by: Jocelyn Harimon Date: 01/12/2023

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

Daily Site Visit Report

Client:	Matador Resources	Inspection Date:	12/6/2022
Site Location Name:	Jimmy Kone Tank Battery	Report Run Date:	12/6/2022 7:59 PM
Client Contact Name:	Arsenio Jones	API #:	
Client Contact Phone #:	(575)361-4333		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	12/6/2022 8:41 AM
Departed Site	12/6/2022 11:05 AM

Daily Site Visit Report

Field Notes

10:13 Arrived on site, filled out safety paperwork.

10:14 Performed a liner inspection. There was a couple of inches of water in the liner, but was very clear and was still able to accurately inspect the liner for any damage.

10:14 The liner looked great, no tears or abrasion was noted. Standing water from rain event that occurred day prior to inspection.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: North

Placard

Viewing Direction: North

Liner inspection

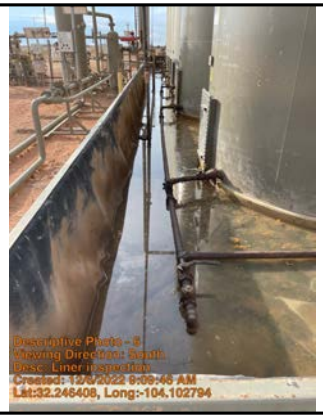
Viewing Direction: North

Liner inspection

Viewing Direction: East

Liner inspection

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: South
	
Liner inspection	Liner inspection
Viewing Direction: South	**Viewing Direction**: South
	
Liner inspection	Liner inspection

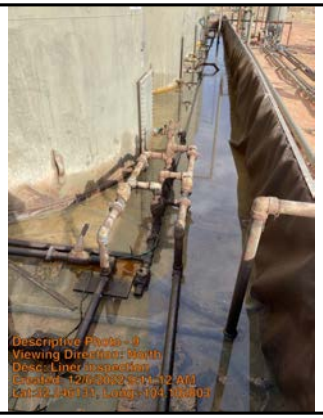
Daily Site Visit Report

Viewing Direction: South

Liner inspection

Viewing Direction: South

Liner inspection

Viewing Direction: North

Liner inspection

Daily Site Visit Report

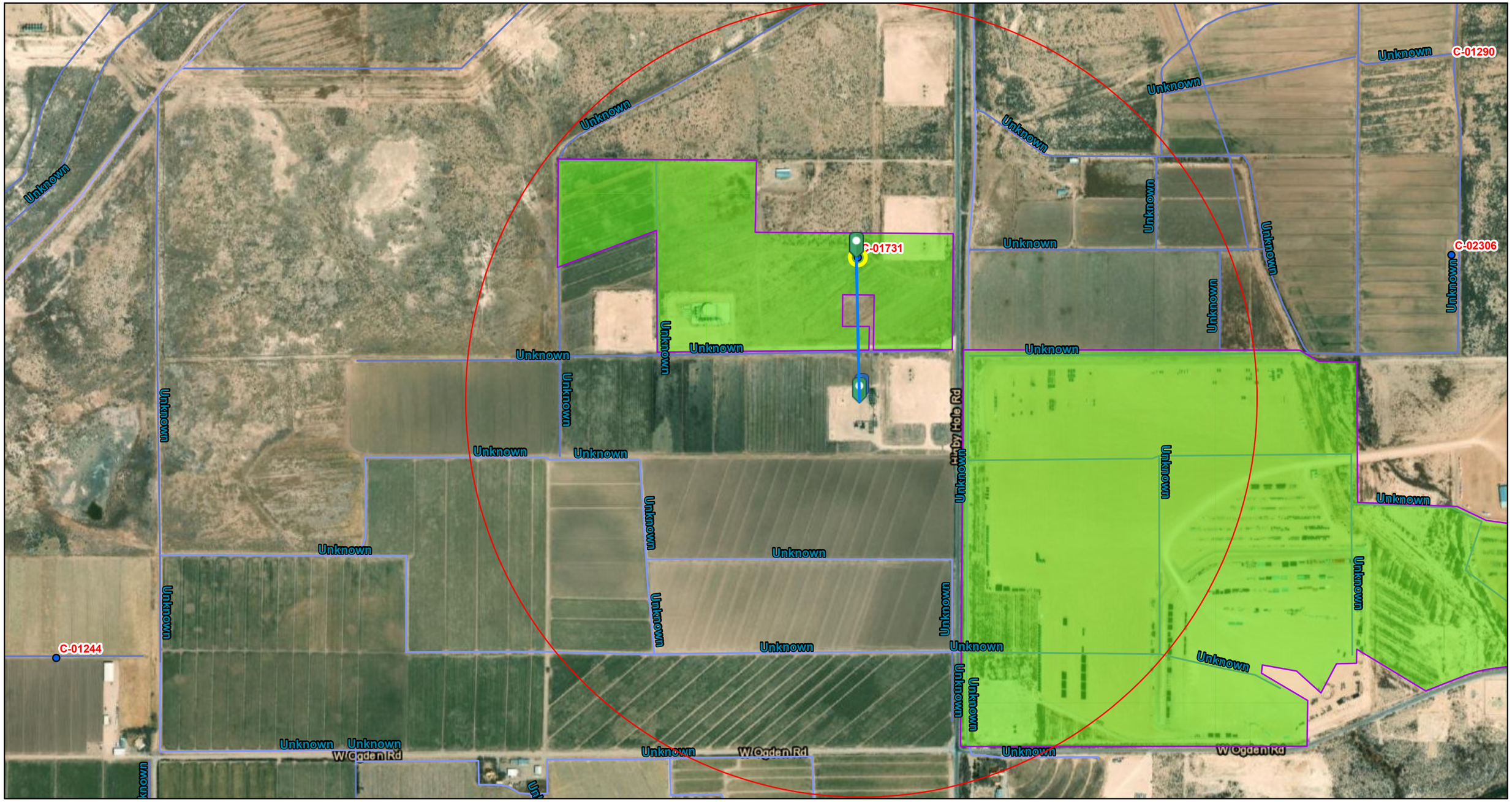
Daily Site Visit Signature

Inspector: Zachery Englebert

Signature: 

ATTACHMENT 3

Jimmy Kone Tank Battery



12/1/2022, 3:05:50 PM

Override 1

GIS WATERS PODs

Active

OSE District Boundary

Water Right Regulations

Negative Easement Area

Conveyances

Canal

Ditch

Lateral

SiteBoundaries

1:9,028

0 0.07 0.15 0.3 mi

0 0.15 0.3 0.6 km

Esri, HERE, GeoTechnologies, Inc., Esri, HERE, Garmin, GeoTechnologies, Inc., U.S. Department of Energy Office of Legacy Management, Maxar

Web Generated Map
Map is generated by web users.

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 01731	4	2		05	24S	28E	584483	3568367*

Driller License: 30 **Driller Company:** BARRON, EMMETT

Driller Name: BARRON, EMMETT

Drill Start Date: 01/15/1977 **Drill Finish Date:** 03/10/1977 **Plug Date:**

Log File Date: 03/30/1977 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

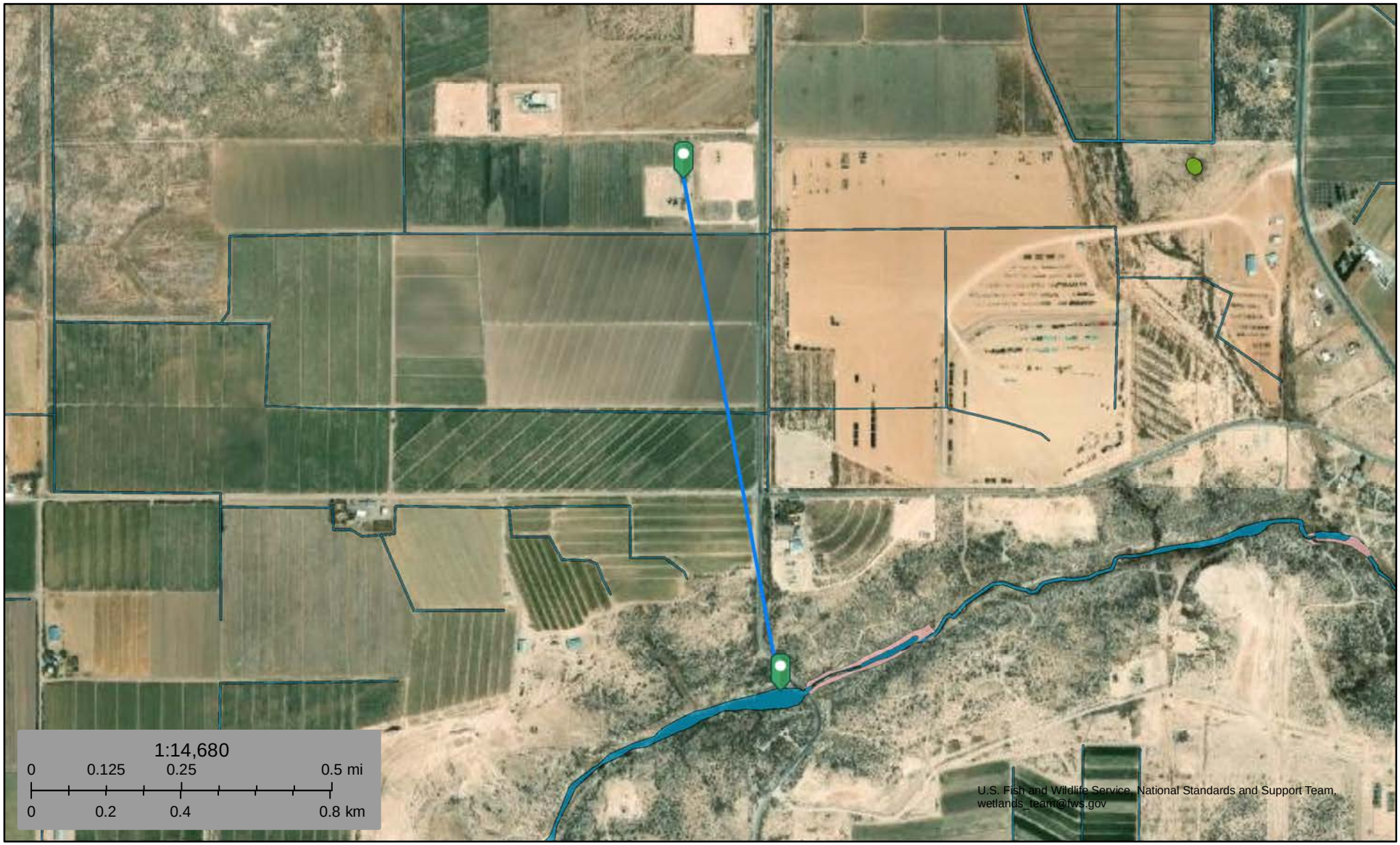
Casing Size: **Depth Well:** 80 feet **Depth Water:** 30 feet

Water Bearing Stratifications:	Top	Bottom	Description
	0	10	Other/Unknown
	10	30	Other/Unknown
	20	80	Other/Unknown

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Jimmy Kone Tank Battery



December 1, 2022

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.

U.S. Fish and Wildlife Service
National Wetlands Inventory

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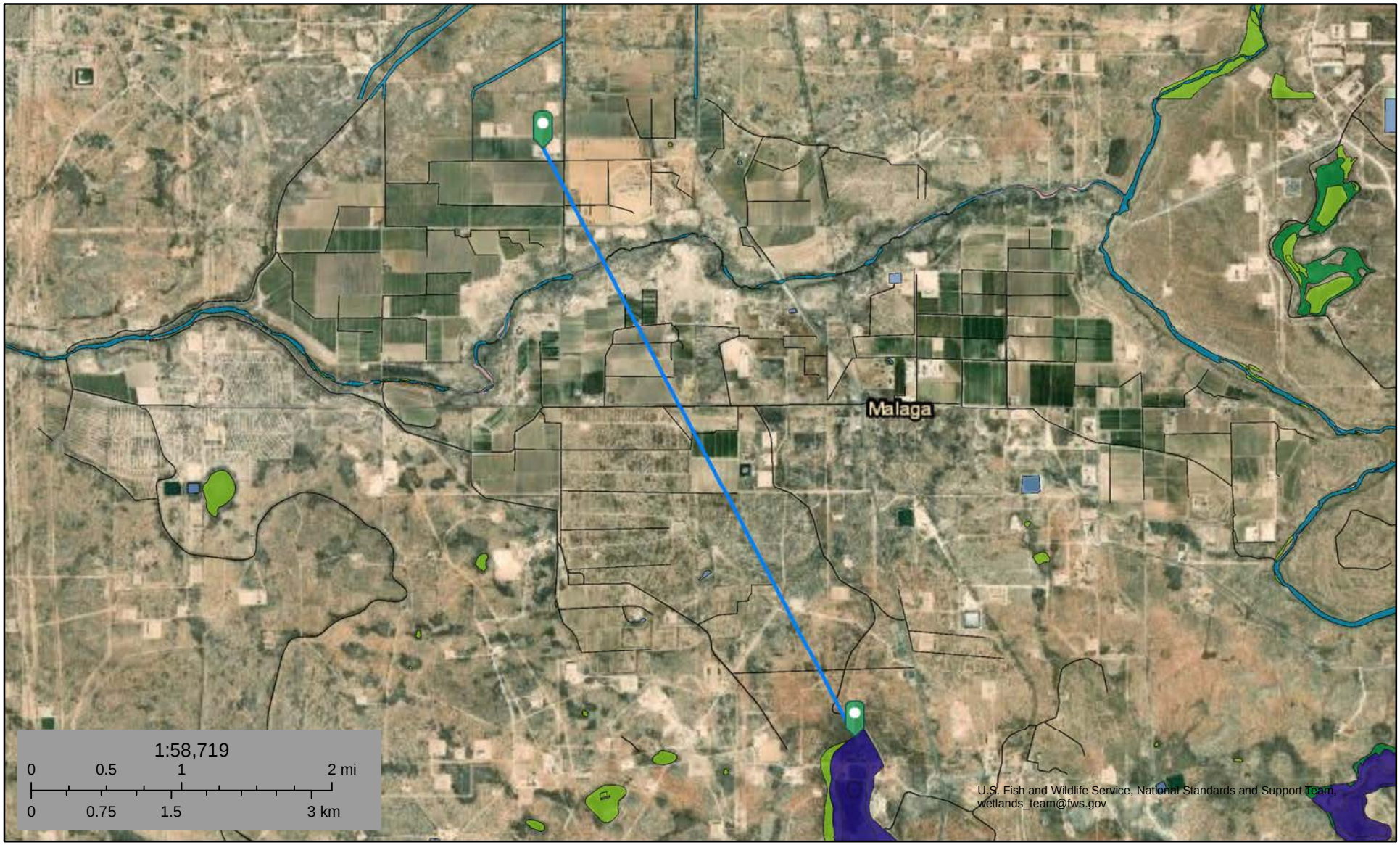

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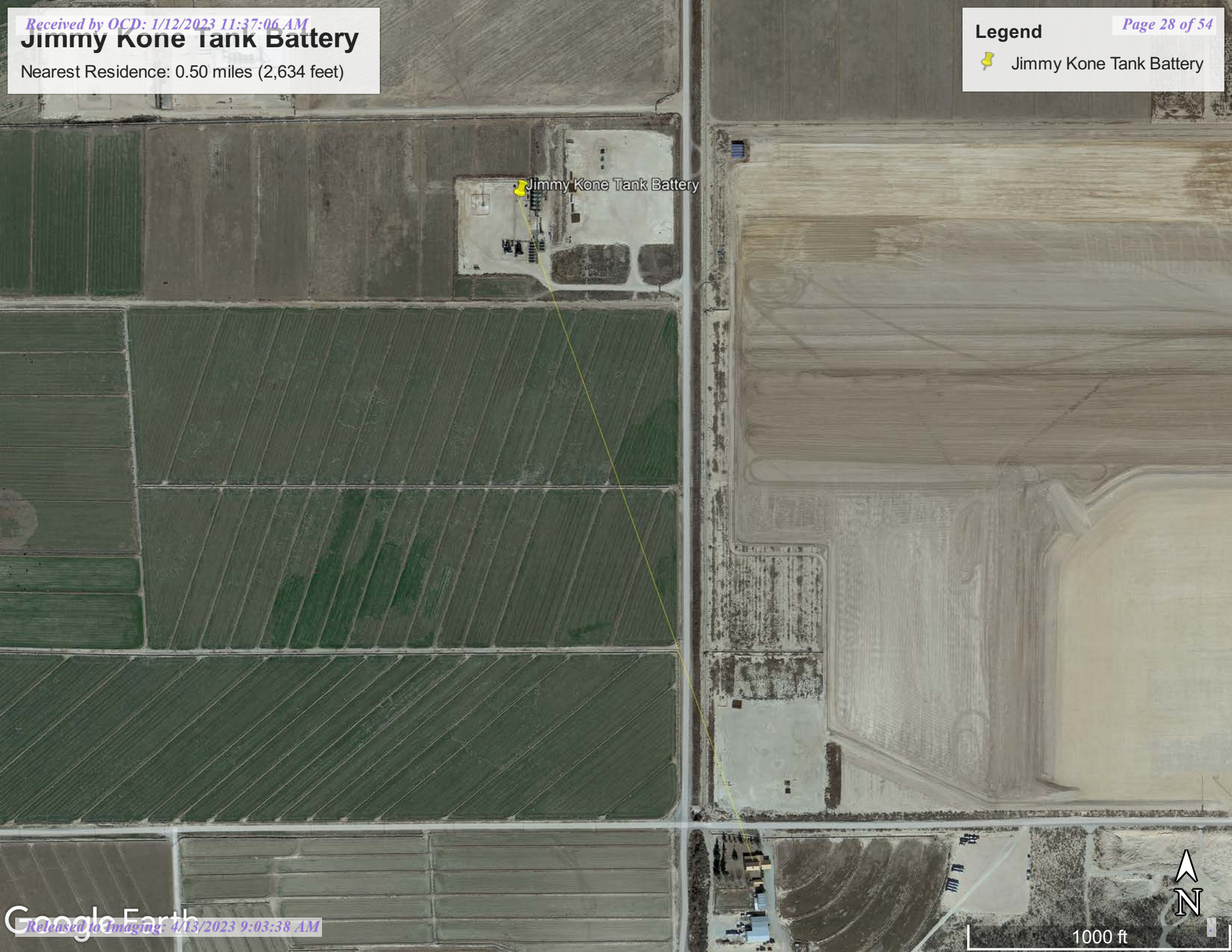
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Jimmy Kone Tank Battery

Nearest Residence: 0.50 miles (2,634 feet)



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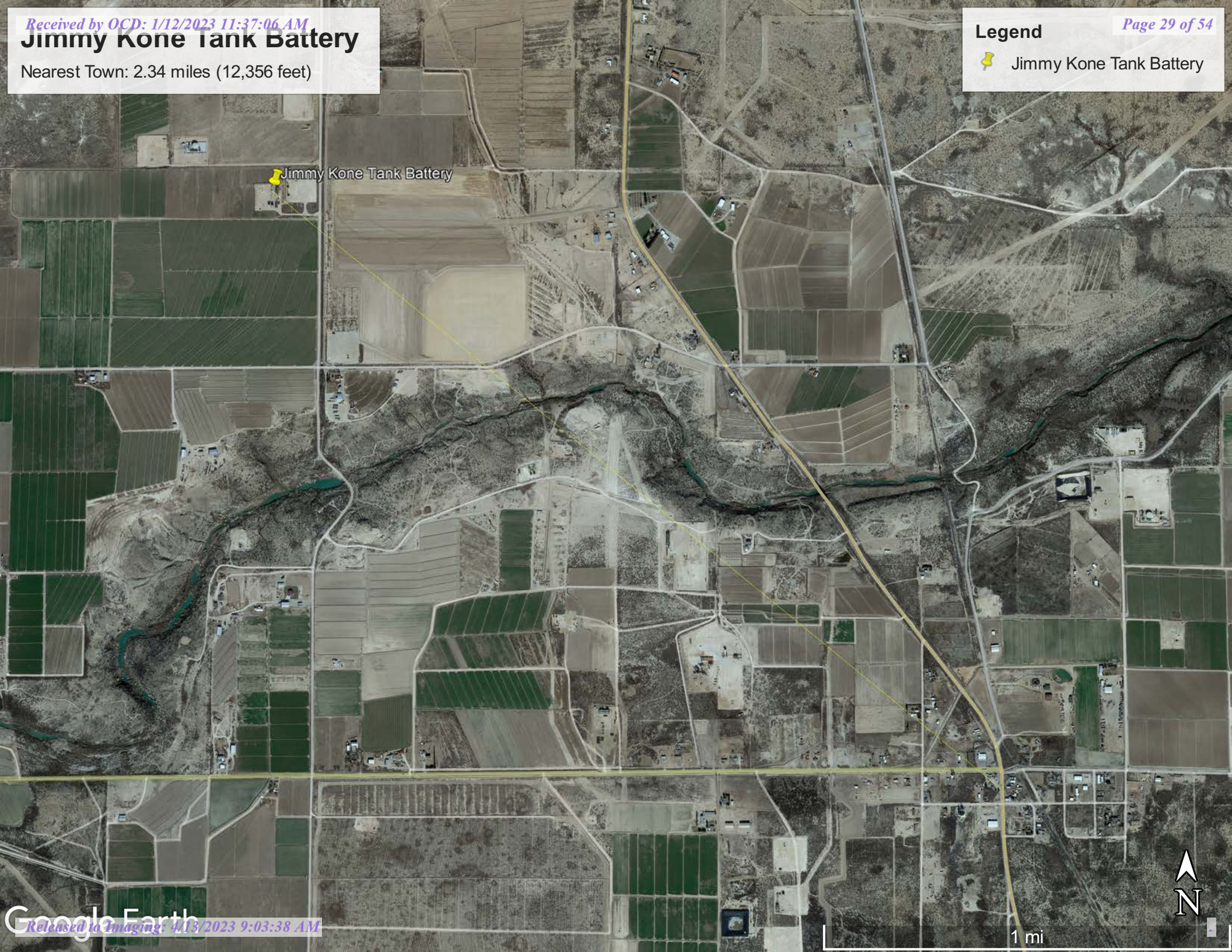
Nearest Town: 2.34 miles (12,356 feet)



U.S. Fish and Wildlife Service
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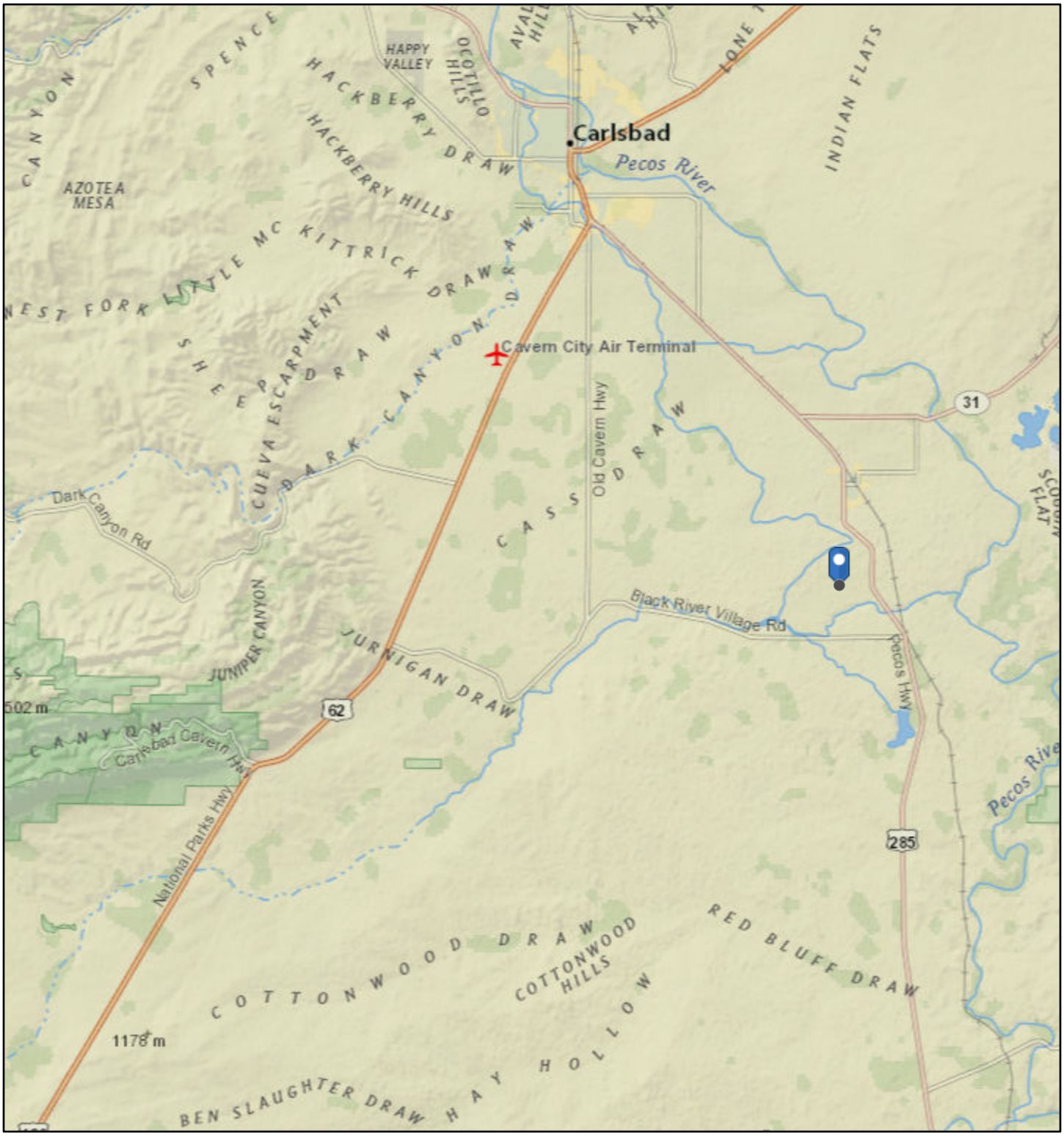


12/1/2022, 2:37:34 PM

1:288,895

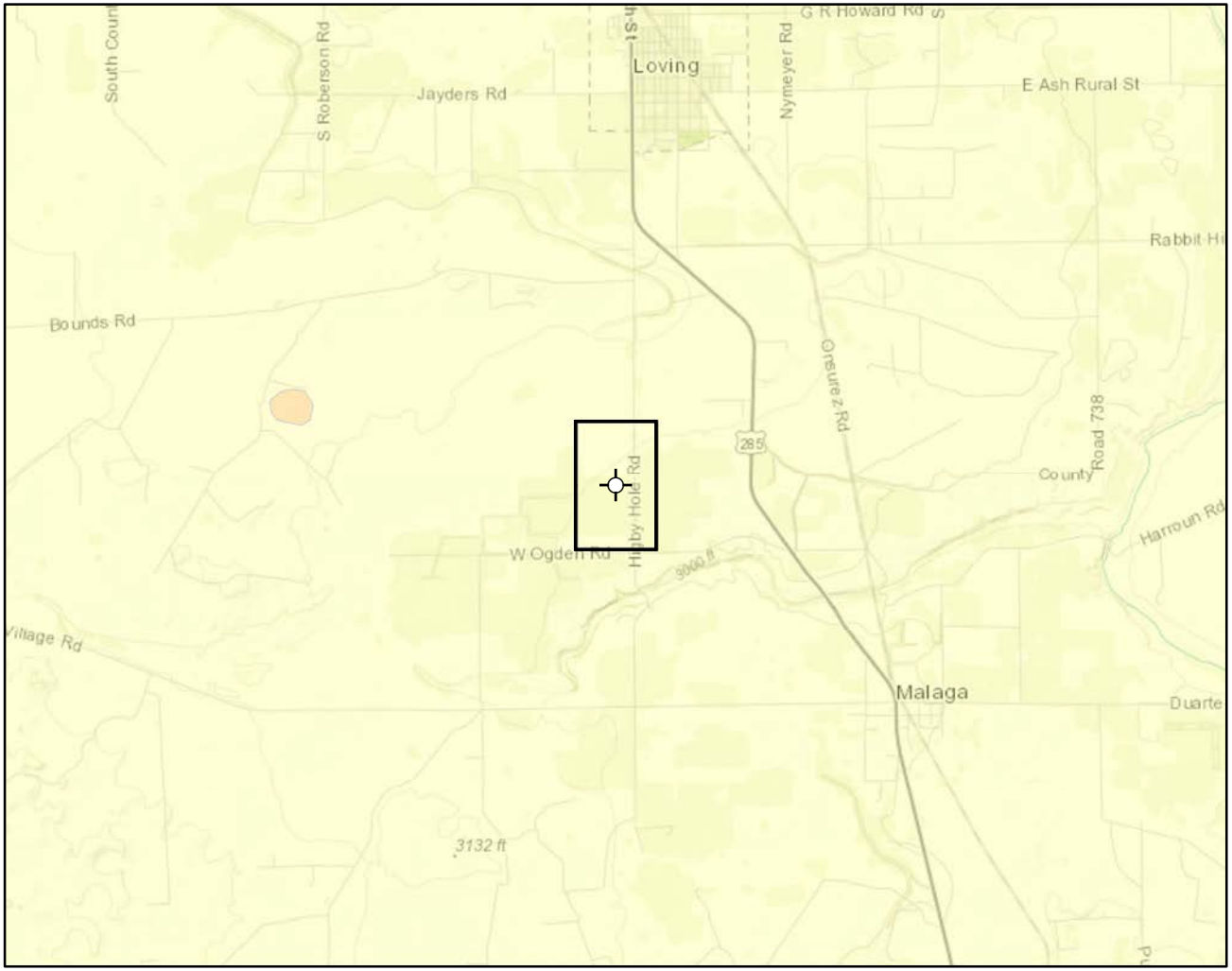
0 2 4 8 mi

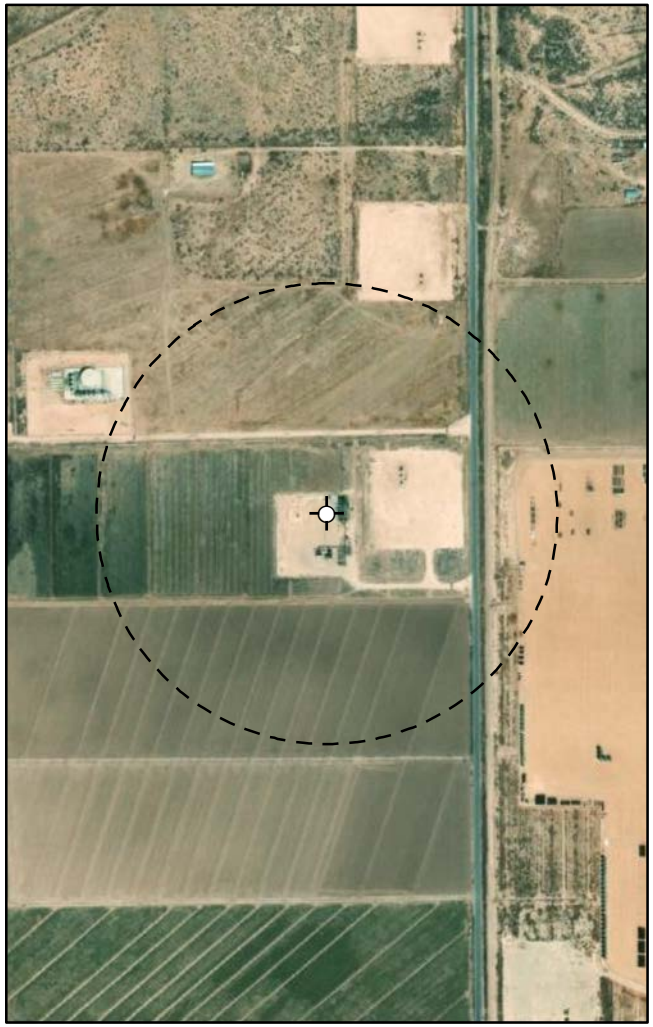
0 3.25 6.5 13 km

National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

EMNRD MMD GIS Coordinator

New Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappbuilder/index.html?id=7ebfa3c432db42978d66c99a9cc8311a)





Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Site Buffer (1,000 sq. ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft.

VERTEX

Map Center:
Lat/Long: 32.246220, -104.103090

NAD 1983 UTM Zone 13N
Date: Dec 09/22

N

Karst Potential Schematic
Jimmy Kone Tank Battery

FIGURE:
X

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

Note: Inset Map, ESRI 2022; Overview Map: ESRI World Topographic. Karst potential data sourced from Rosswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management. (2018). Karst Potential.

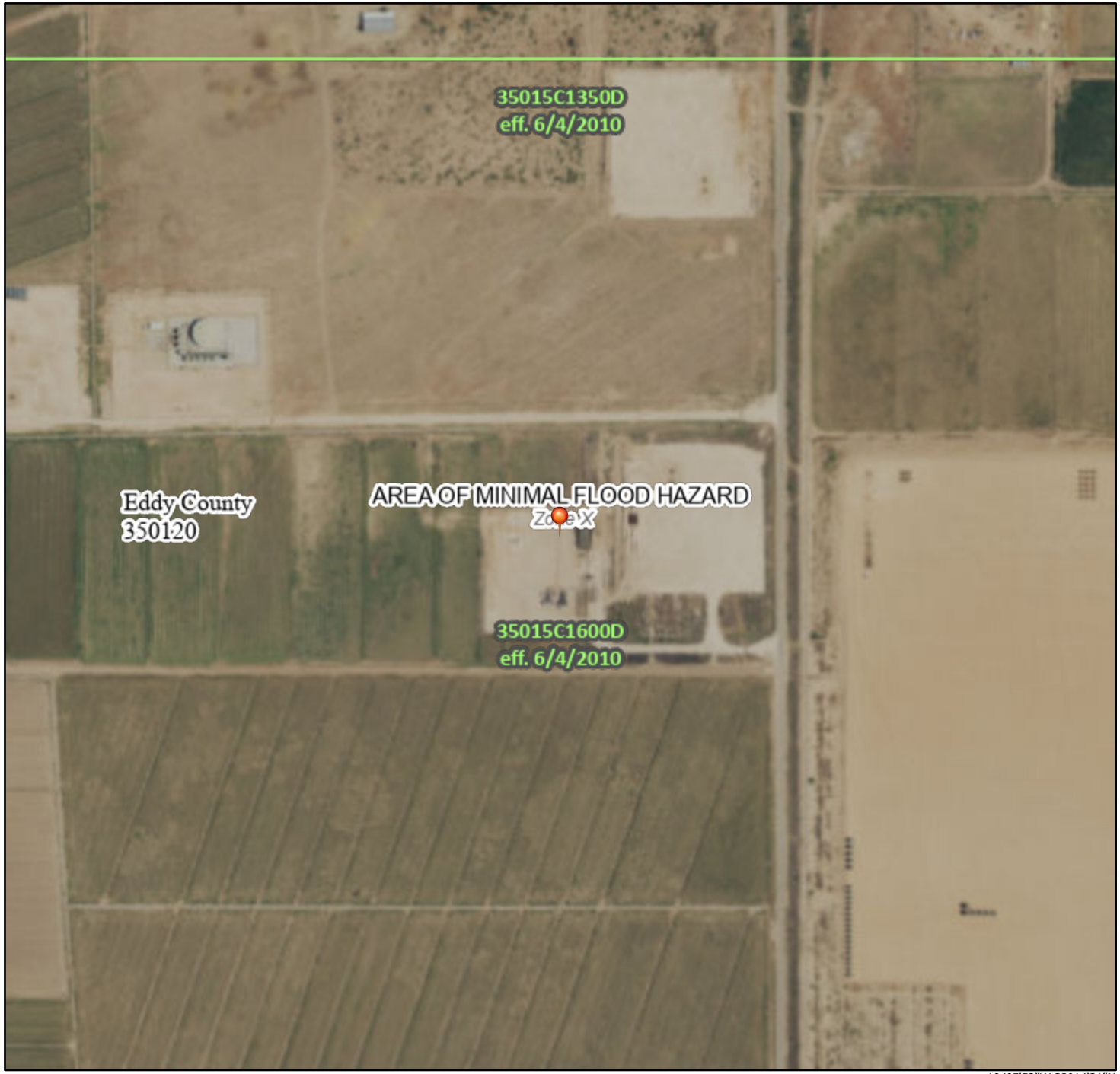
VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Matador Resources\22E-04122\Figure X - Karst Schematic (Jimmy Kone).mxd

National Flood Hazard Layer FIRMette

FEMA

104°6'30"W 32°15'2"N



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

1:6,000

104°5'52"W 32°14'31"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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 12/1/2022 at 4:20 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.

Soil Map—Eddy Area, New Mexico

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 18, Sep 8, 2022

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

Date(s) aerial images were photographed: Feb 27, 2020—Feb 28, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Kr	Karro loam, 0 to 1 percent slopes	7.6	100.0%
Totals for Area of Interest		**7.6**	**100.0%**

Eddy Area, New Mexico

Kr—Karro loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1w4v
Elevation: 2,500 to 5,300 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 57 to 64 degrees F
Frost-free period: 200 to 230 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Karro and similar soils: 99 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Karro

Setting

Landform: Plains, alluvial fans
Landform position (three-dimensional): Riser, talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 10 inches: loam
H2 - 10 to 90 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: R070BC030NM - Limy

Hydric soil rating: No

Minor Components

Reeves

Percent of map unit: 1 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 18, Sep 8, 2022

USDA Natural Resources Conservation Service

Ecological site R070BC030NM
Limy

Accessed: 12/01/2022

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Figure 1. Mapped extent

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

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on plains, alluvial fans, fan piedmont, adjacent to playa lake beds or playa rims. Slopes are 0 to 5 percent. Elevations range from 2,842 to 4,500 feet. The site is derived from calcareous mixed alluvium derived from sedimentary rock. Rock fragments range less than 10 percent.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont (2) Alluvial fan (3) Plain
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–4,500 ft
Slope	0–5%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April and the first killing frost in late October or early November.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant moisture, annual forbs and cool season grasses can make up an important component of the site. Strong winds blow from the west and southwest from January through June, which accelerate soil drying during a critical period for cool season plant growth.

Table 3. Representative climatic features

Frost-free period (average)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

Influencing water features

This site is not inflenced by wetlands or streams.

Soil features

Soils are deep and very deep. Surface layers are fine sand, very fine sand, silty clay loam, very fine sandy loam, clay loam and loam. Subsoil textures are loam, clay loam, silty clay loam, sandy clay loam or silt loam. Depth to calcic horizon: 10 to 24 inches, and calcium carbonate equivalent is averaging more than 40 percent. Permeability is moderate and the available water holding capacity is moderate. Because of the high lime content and rather moderately coarse surface textures, the soils are easily windblown if not protected by vegetation.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic soils:
Karro
Armesa
Jal

Table 4. Representative soil features

Surface texture	(1) Fine sandy loam (2) Very fine sandy loam (3) Silty clay loam
Family particle size	(1) Sandy
Drainage class	Moderately well drained to well drained
Permeability class	Slow to moderately slow
Soil depth	60–72 in
Surface fragment cover <=3"	2–11%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	5–7 in
Calcium carbonate equivalent (0-40in)	25–50%
Electrical conductivity (0-40in)	0–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0–1
Soil reaction (1:1 water) (0-40in)	7.9–9

Subsurface fragment volume <=3" (Depth not specified)	1–15%
Subsurface fragment volume >3" (Depth not specified)	0%

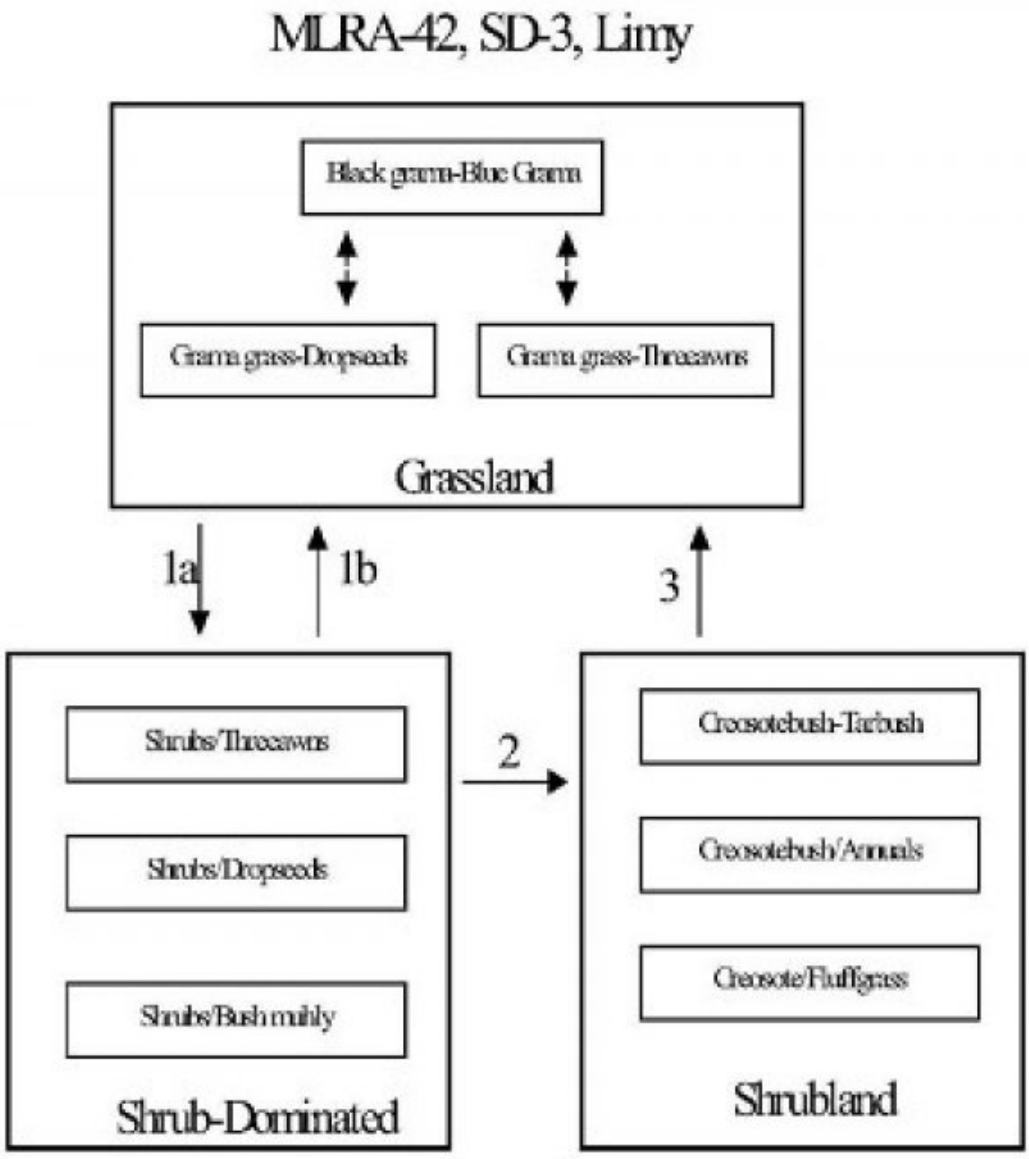
Ecological dynamics

The Limy site occurs on nearly level or slightly concave upland plains, fans, and terraces, or adjacent to playa lakebeds. The Limy site can occur as a distinct unit adjacent to, or as part of, a mosaic with Loamy, Sandy, and Shallow Sandy sites. A soil layer high in lime, of soft or weakly cemented calcium carbonate, usually within two feet of the soil surface, distinguishes the Limy site. The historic plant community of the Limy site exhibits a grassland aspect, with shrubs and
half shrubs noticeable and evenly scattered. Grasses account for approximately 65 to 80 percent of the total potential production. Black grama and blue grama are the dominant grass species. Yucca, winterfat, and ephedra are common shrubs. Overgrazing and/or extended drought can reduce grass cover, effect a change in grass species dominance, and may result in a shrubdominated state. Decreased fire frequency may also play a key role in the transition to shrub dominance.

1 Resource competition by shrubs, continued loss of grass cover, and resulting erosion
may initiate the transition to a shrubland state.

State and transition model

Plant Communities and Transitional Pathways (diagram)



1a. Loss of grass cover due to overgrazing or drought, decreased fire frequency.
1b. Brush control, prescribed grazing.

2.Continued loss of grass cover, competition by shrubs, erosion.

3. Brush control, range seeding, prescribed grazing.

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

Grassland: The historic plant community is dominated by black, and blue grama. Black grama densities tend to be

highest on soils with sandy loam surface textures, and blue grama on soils with loam surface textures. Bush muhly, hairy grama, plains bristlegrass, and sand dropseed also occur in significant amounts. Yucca, winterfat, and ephedra species are the dominant shrubs of the historic community. Fourwing saltbush, creosotebush, tarbush, and broom snakeweed typically occur as sub-dominants. Threadleaf groundsel, wooly groundsel, Leatherweed croton, and bladderpod are forbs commonly found across the site. Extended periods of drought, or drought in combination with heavy grazing can cause a decrease in plants such as black grama, blue grama, bush muhly, vine mesquite, Arizona cottontop, winterfat, and fourwing saltbush. Dropseeds and threeawns may increase in representation and become co-dominant to black or blue grama. Dropseeds and threeawns produce ample viable seed and are not as palatable as either black or blue grama, especially during the dormant season. Threeawns can take advantage of early spring, as well as summer moisture, enabling it to quickly establish following drought. Creosotebush, tarbush, broom snakeweed, fluffgrass and burrograss increase with further site degradation. This increase in shrubs and associated loss of grass cover, perhaps in conjunction with decreased fire frequency may result in a shrub-dominated state. Diagnosis: Black grama and blue grama are the dominant grasses. Grass cover is uniformly distributed with few large bare areas. Yucca, winterfat, and ephedra species are the dominant shrubs. Fourwing saltbush is present.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	380	703	1026
Shrub/Vine	60	111	162
Forb	60	111	162
Total	**500**	**925**	**1350**

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	20-30%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	12-15%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	25-35%

Figure 5. Plant community growth curve (percent production by month). NM2830, R042XC030NM Limy HCPC. R042XC030NM Limy HCPC Mixed grass-shrub plant community.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	3	4	8	10	25	30	15	5	0	0

State 2
Shrub Dominated

Community 2.1
Shrub Dominated

This state is characterized by an increase in shrubs and a decrease in grass cover. Creosotebush, tarbush, and broom snakeweed are the dominant shrubs. Dropseeds, threeawns or bush muhly are the dominant grasses. Retrogression within this state is characterized by a continued reduction in grass cover and an increase in the size and frequency of bare patches. Under heavy grazing pressure grass cover is higher in shrub interspaces when dropseeds or threeawns are the dominant grass, as opposed to bush muhly, whose cover tends to be higher under shrub canopies. This may be due to the forage value of bush muhly, low resistance to grazing, and its ability to successfully establish under creosotebush and tarbush.4 Diagnosis: Shrubs are found at increased densities relative to the grassland state, especially creosotebush, tarbush, and broom snakeweed. Grass cover is patchy with large (>2m) connected bare areas present. Black grama may or may not be present. Wind erosion is common and evidenced by pedestaling of plants and rocks in shrub interspaces. Transition to Shrub-Dominated (1a) Overgrazing and/or extended periods of drought, and suppression of natural fire regimes are thought to cause this transition. Decreases in grass cover give a competitive advantage to shrubs and shrub seedling establishment. Shrubs are better equipped to withstand prolonged periods of drought due to the ability of their root systems to extract water from a larger area than grasses. If periodic fire played a role in naturally suppressing shrubs (especially creosotebush and tarbush), then decreased fire frequency may facilitate this transition. Key indicators of approach to transition: Increase in amount of dropseeds or threeawns Decrease or loss of winterfat and fourwing saltbush. Increase in size and frequency of bare patches. Transition back to Grassland (1b) Brush control is necessary to re-establish grass dominance. Prescribed grazing will help to ensure proper forage utilization following brush control and sustain grass cover. Periodic use of prescribed fire may help in maintaining the grassland state.

State 3
Shrubland

Community 3.1
Shrubland

Shrubland State: This state is characterized by very little grass cover, extensive dominance of shrubs, and accelerated erosion. Creosotebush is typically the dominant shrub, and tarbush often occurs as a sub-dominant. Herbaceous cover is very limited, often restricted to a sparse cover of fluffgrass or annual forbs and grasses scattered across the shrub interspaces, or scattered bush muhly in shrub bases. Diagnosis: Grass cover very sparse or absent in shrub interspaces. Fluffgrass or annuals may be the dominant herbaceous species. Erosion is evident by soil sealing, water flow patterns, pedestals or terracettes. Sub-surface soil horizons may be exposed. Transition to Shrubland State (2) Persistent loss of grass cover, associated erosion, and increased competition for resources by shrubs may cause a transition to a shrubland state. As grass cover diminishes, perhaps due to excessive grazing followed by drought, erosion rates increase. Erosion removes or re-distributes organic matter and available nutrients. As organic matter is lost, soil surfaces seal, reducing infiltration and available water. The relocation of resources from interspaces to shrub bases further increases shrubs competitive advantage. Key indicators of approach to transition: Increase in size and frequency of bare patches. Loss of grass cover in shrub interspaces. Increased signs of erosion—evidenced by pedestalling of plants, soil deposition on leeward side of plants, exposure of subsoil.2 Transition back to Grassland (3) Brush control will be necessary to overcome competition between shrubs and grass seedlings. Seeding may expedite recovery or may be necessary if an adequate seed source is no longer remaining. Prescribed grazing will help ensure adequate deferment and proper forage utilization following grass establishment. The degree to which this site is capable of recovery and benefits derived depends on the cost of restoration, extent of degradation to soil resources, and adequate rainfall necessary to establish grasses. 3 Depending on the extend of soil degradation, the length of time involved for a transition back to the Grassland state may take longer than the typical management timeframe.

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					
1				93–139	
	black grama	BOER4	*Bouteloua eriopoda*	93–139	–
2				46–93	

	bush muhly	MUPO2	*Muhlenbergia porteri*	46–93	–
3				93–185	
	blue grama	BOGR2	*Bouteloua gracilis*	93–185	–
	hairy grama	BOHI2	*Bouteloua hirsuta*	93–185	–
4				93–139	
	plains bristlegrass	SEVU2	*Setaria vulpiseta*	93–139	–
	sand dropseed	SPCR	*Sporobolus cryptandrus*	93–139	–
5				28–46	
	low woollygrass	DAPU7	*Dasyochloa pulchella*	28–46	–
	ring muhly	MUTO2	*Muhlenbergia torreyi*	28–46	–
6				28–46	
	threeawn	ARIST	*Aristida*	28–46	–
7				28–46	
	burrograss	SCBR2	*Scleropogon brevifolius*	28–46	–
8				28–46	
	Arizona cottontop	DICA8	*Digitaria californica*	28–46	–
	vine mesquite	PAOB	*Panicum obtusum*	28–46	–
9				28–46	
	Grass, perennial	2GP	*Grass, perennial*	28–46	–
Shrub/Vine					
10				46–93	
	yucca	YUCCA	*Yucca*	46–93	–
11				46–93	
	jointfir	EPHED	*Ephedra*	46–93	–
	winterfat	KRLA2	*Krascheninnikovia lanata*	46–93	–
12				19–46	
	fourwing saltbush	ATCA2	*Atriplex canescens*	19–46	–
13				28–46	
	American tarwort	FLCE	*Flourensia cernua*	28–46	–
	broom snakeweed	GUSA2	*Gutierrezia sarothrae*	28–46	–
	creosote bush	LATR2	*Larrea tridentata*	28–46	–
14				19–46	
	Shrub (>.5m)	2SHRUB	*Shrub (>.5m)*	19–46	–
Forb					
15				28–46	
	woolly groundsel	PACA15	*Packera cana*	28–46	–
	threadleaf ragwort	SEFLF	*Senecio flaccidus var. flaccidus*	28–46	–
16				19–46	
	leatherweed	CRPOP	*Croton pottsii var. pottsii*	19–46	–
17				19–46	
	bladderpod	LESQU	*Lesquerella*	19–46	–
18				19–46	
	Forb (herbaceous, not grass nor grass-like)	2FORB	*Forb (herbaceous, not grass nor grass-like)*	19–46	–

Animal community

This site provides habitat which supports a resident animal community that is characterized by black-tailed jackrabbit, spotted ground squirrel, black-tailed prairie dog, yellow-faced pocket gopher, Merriam's dangaroo rat, hispid cotton rat, swift fox, burrowing owl, horned lark, meadowlark, lark bunting, scaled quail, greater earless lizard, leopard lizard, Texas horned lizard, Western spadefoot toad, prairie rattlesnake and Western coachwhip. The marsh hawk hunts over the site in winter, and long-billed curlew, and sandhill crane utilize playas associated with the site during migrations.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydrolic cover conditions and hydrologic soil groups.

Hydrologic Interpretations
Soil Series Hydrologic Group
Jal-------- B
Armesa----- B
Karro------ B

Recreational uses

This site offers recreation potential for hiking, horseback riding, nature observation and photography, and quail, dove, antelope and predator hunting.

Wood products

This site produces no significant wood products.

Other products

This site is suitable for grazing during all seasons of the year by all kinds and classes of livestock. As this site deteriorates there will be a decrease in plants such as black grama, bush muhly, blue grama, vine-mesquite, Arizona cottontop, winterfat and fourwing saltbush. This will cause an increase in fluffgrass, burrograss, yucca, creosotebush, tarbush and broom snakeweed. There will also be an increase in bare ground. As vegetative cover is reduced the soil is very open to wind erosion. This site responds best to a system of management that rotates the season of use.

Other information

Other Information:
Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month
Similarity------ Index Ac/AUM
100 - 76-------- 3.0 – 3.5
75 – 51--------- 3.4 – 4.8
50 – 26--------- 4.7 – 7.0
25 – 0---------- 7.1 +

Inventory data references

Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico. This site has been mapped and correlated with soils in the following soil surveys. Eddy County, Lea County, and Chaves County.

Other references

References

1. Humphrey, R.R. 1974. Fire in the deserts and desert grassland of North America. In: Kozlowski, T. T.; Ahlgren, C. E., eds. Fire and ecosystems. New York: Academic Press: 365-400.

2. U.S. Department of Agriculture, Natural Resources Conservation Service. 2001. Soil Quality Information Sheet. Rangeland Soil Quality—Wind Erosion. Rangeland Sheet 10. [Online]. Available: http://www.statlab.iastate.edu/survey/SQI/range.html

3.Vallentine, J.F. and J.J. Norris. 1964. A comparative study of soils of selected creosotebush sites in southern New Mexico. J. Range. Manage. 17: 23-32.

4. Welsh, R.G. and R.F. Beck. 1976. Some ecological relationships between creosotebush and bush muhly. Journal of Range Management 29:472-475.

Contributors

David Trujillo
Don Sylvester

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

   _____

2. **Presence of water flow patterns:**

   _____

3. **Number and height of erosional pedestals or terracettes:**

   _____

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

   _____

5. **Number of gullies and erosion associated with gullies:**

---

6. **Extent of wind scoured, blowouts and/or depositional areas:**

---

7. **Amount of litter movement (describe size and distance expected to travel):**

---

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

---

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

---

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

---

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

---

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

    Dominant:

    Sub-dominant:

    Other:

    Additional:

---

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**

---

14. **Average percent litter cover (%) and depth (in):**

---

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

---

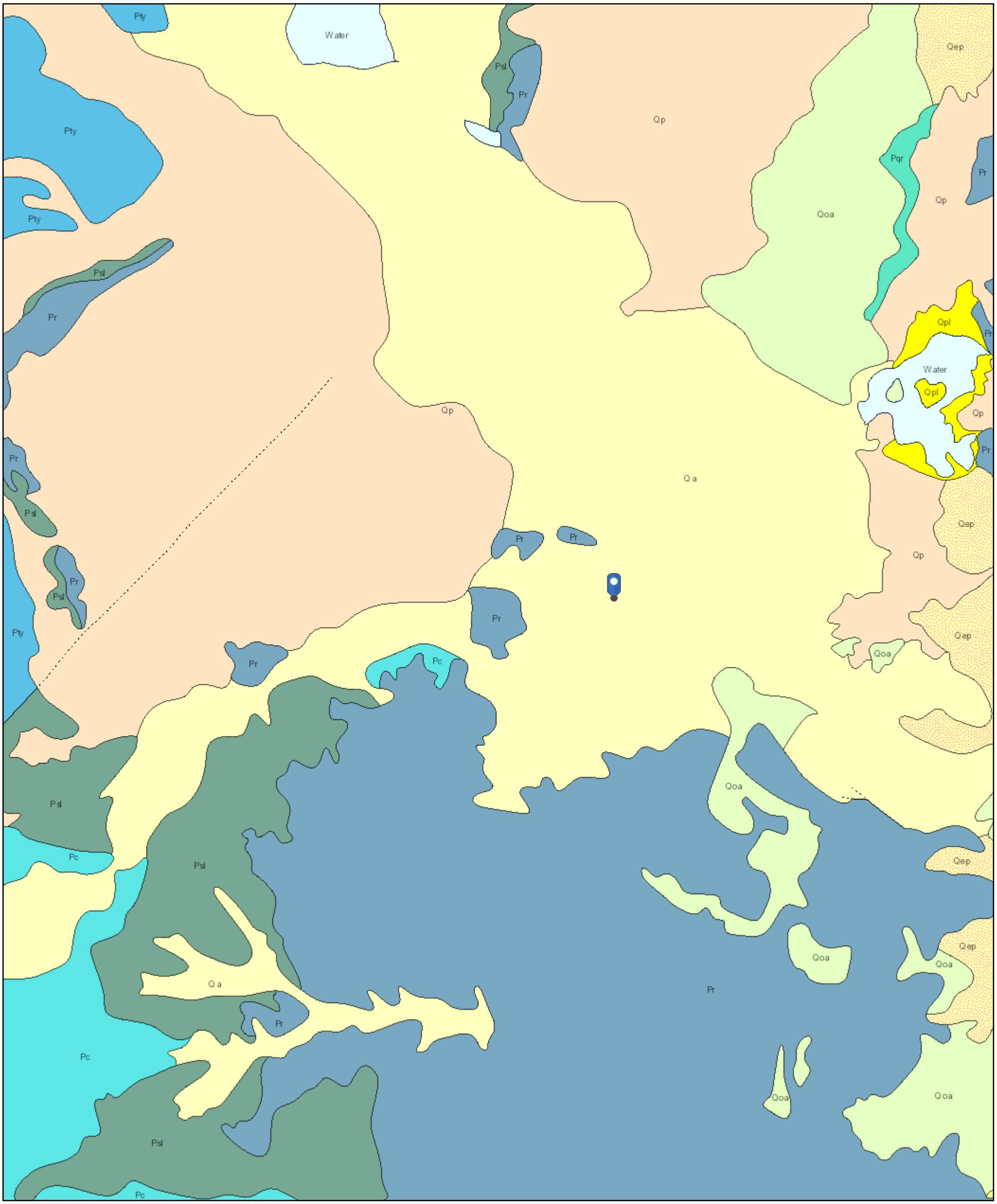
16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if**

their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:

---

17. **Perennial plant reproductive capability:**

Jimmy Kone Tank Battery



12/6/2022, 12:42:36 PM

Lithologic Units

- Playa—Alluvium and evaporite deposits (Holocene)
- Water—Perenial standing water
- Qa—Alluvium (Holocene to upper Pleistocene)

1:144,448

0 1.25 2.5 5 mi

0 2.25 4.5 9 km

Esri, NASA, NGA, USGS, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census

ArcGIS Web AppBuilder

ATTACHMENT 4

Gmail Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Jimmy Kone 48 HR Notice Liner Inspecition nAPP2203247689

2 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com> Thu, Dec 1, 2022 at 1:43 PM
To: "Enviro, OCD, EMNRD" <OCD.Enviro@state.nm.us>
Cc: Arsenio Jones <arsenio.jones@matadorresources.com>, clinton.talley@matadorresources.com, csnow@matadorresources.com

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled confirmatory sampling to be conducted for the following release:

nAPP2203247689 DOR: 02/01/2022 Site Name: Jimmy Kone Tank Battery

This work will be completed on behalf of Matador Production Company

On Tuesday, December 6, 2022 at approximately 9:00 a.m., Zachary Englebert will be on site to conduct a liner inspection. He can be reached at 575-361-9639. 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 575-361-9880.

Thank you,

Monica Peppin, A.Sc.
Project Manager

Vertex Resource Services Inc.
3101 Boyd Drive,
Carlsbad, NM 88220

P 575.725.5001 Ext. 711
C 575.361.9880
F

www.vertex.ca

Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Thu, Dec 1, 2022 at 1:53 PM
To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Jocelyn Harimon ● Environmental Specialist

Environmental Bureau

EMNRD - Oil Conservation Division

1220 South St. Francis Drive | Santa Fe, NM 87505

(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

http:// **www.emnrd.nm.gov**

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Thursday, December 1, 2022 1:43 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Arsenio Jones <arsenio.jones@matadorresources.com>; clinton.talley@matadorresources.com; csnow@matadorresources.com
Subject: [EXTERNAL] Jimmy Kone 48 HR Notice Liner Inspecition nAPP2203247689

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

[Quoted text hidden]

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 175485

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 175485
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2203247689 JIMMY KONE TANK BATTERY, thank you. This closure is approved.	4/13/2023