VERTEX

January 24, 2020 Vertex Project #: 19E-00575-033

Spill Closure Report: Ironhouse 24 State Com 1H (Flare Fire)
Unit P, Section 24, Township 18 South, Range 34 East
County: Lea
API: 30-025-41163
Incident Report: nOY1720827033

Prepared For: Devon Energy Production Company
6488 Seven River Hwy
Artesia, NM 88210

New Mexico Oil Conservation Division – District 1 – Hobbs
1625 North French Drive
Hobbs, New Mexico 88240

On December 2, 2019, Devon Energy Production Company (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a site assessment and remediation for an oil release at Ironhouse 24 State Com 1H (Ironhouse 24), API 30-025-41163. Devon submitted an initial C-141 Release Notification (Attachment 1) to New Mexico Oil Conservation Division (NM OCD) District I and the State Land Office (SLO), who own the property, on July 27, 2017. Incident report number nOY1720827033 was assigned to this incident.

This letter provides a description of the release assessment and remediation activities, and demonstrates that closure criteria established in Table I of 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) are being met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NM OCD for closure of this release, with the understanding that restoration of the release site will be deferred until such time as all oil and gas activities are terminated and the site is reclaimed per 19.15.29.13 NMAC.

Incident Description

On July 13, 2017, a release at Devon's Ironhouse 24 site occurred when a flare scrubber swamped out, sending oil to the flare and causing a fire and minor release. The fire resulted in the release of approximately 0.25 barrel (bbl) of oil that misted onto the pad and onto an adjacent pasture to the northeast. The release area was determined to be approximately 20 feet by 20 feet; the total affected area was determined to be approximately 400 square feet.

Site Characterization

The release occurred on state-owned land at N 32.7265167, W 103.5080643, approximately 20 miles west of Hobbs, New Mexico. The legal description for the site is Unit P, Section 24, Township 18 South, Range 34 East, in 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 rarely range land.

Ironhouse 24 is typical of oil and gas exploration and production sites on the western portion of the Permian Basin, and is currently used for oil and gas production. The following sections specifically describe the release area on the northeast corner of the constructed pad where the flare stack is located and in the adjacent pasture, as shown on Figure 1 (Attachment 2).

The climate is semiarid, with average annual precipitation ranging between 14 and 16 inches. The surrounding landscape is comprised of several low production plant communities, with the dominant vegetation being primarily little bluestem and sideoats grama grass species and the occasional shrubs, such as feather dalea, skunkbush sumac and juniper. Vegetation is generally sparse, with the shallow soil depth limiting plant density and the limy soils resulting in plants that are less palatable for grazing livestock than areas with deeper soil (United States Department of Agriculture, Natural Resources Conservation Service, 2019). Limited to no vegetation is allowed to grow on the compacted wellpad.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2019) indicates the surface geology at Ironhouse 24 is comprised primarily of To—Ogallala formation, which is alluvial and eolian deposits and petrocalcic soils indicative of southern High Plains. The United States Department of Agriculture (USDA) Web Soil Survey characterizes the soil at the site as Kimbrough-Lea complex, which consists of shallow layers of gravelly loam and loam over a cemented material (United States Department of Agriculture, Natural Resources Conservation Service, 2019). The soil is well-drained with high runoff and very low moisture levels in the profile. There is low potential for karst geology to be present near Ironhouse 24 (United States Department of the Interior, Bureau of Land Management, 2019).

There is no surface water located at Ironhouse 24. Based on the United States Fish and Wildlife Service National Wetlands Inventory, the nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream located approximately 173 feet north of the site (United State Fish and Wildlife Service, 2019). There are no known water sources within a half mile of the release, nor are there any 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.

Using information from the New Mexico Office of the State Engineer (NM OSE) Water Column/Average Depth to Water report, depth to groundwater at Ironhouse 24 is estimated to be approximately 117 feet below ground surface (bgs) based on a groundwater well located approximately 600 feet south of the release location (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2019). The Chevron Texaco Depth to Ground Water map for Lea County confirms that depth to groundwater in the vicinity of Ironhouse 24 is approximately 100 feet bgs. 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 was subject to any of the special case scenarios outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Based on data included in the closure criteria determination worksheet, the release at Ironhouse 24 is not subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC and the closure criteria for the site is 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 (TPHs) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)
[2]Benzene, toluene, ethyl benzene and xylene (BTEX)

Remedial Actions

An initial site inspection of the release area and remediation activities were completed prior to Vertex being assigned this project.

On December 3, 2019, Vertex provided 48-hour notification of confirmation sampling to NM OCD and the SLO, as required by Subparagraph (a) of Paragraph (1) of Subsection D 19.15.29.12 NMAC (Attachment 5). On December 5, 2019, a Vertex representative was on-site to conduct confirmatory sampling. Vertex personnel collected three five-point composite samples from the identified release area such that no composite sample was representative of more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC, which does not require prior NM OCD approval. The confirmatory samples were collected and placed in laboratory-provided containers, preserved on ice, and submitted to a National Environmental Laboratory Accreditation Program (NELAP)-approved laboratory for chemical analysis. The Daily Field Report (DFR) associated with confirmatory sampling is included in Attachment 4.

Laboratory analyses included Method 300.0 for chlorides, Method 8021B for volatile organics, including BTEX, and EPA Method 8015 for TPH, including MRO, DRO and GRO. Final confirmatory sample analytical data are summarized in Attachment 6. Laboratory data reports and chain of custody forms are included in Attachment 7.

A GeoExplorer 7000 Series Trimble global positioning system (GPS) unit was used to map the approximate center of each five-point composite sample. These confirmation sampling locations are presented on Figure 1 (Attachment 2).

Closure Request

Vertex does not recommend any additional remediation action to address the release at Ironhouse 24. As demonstrated in Table 2, laboratory analyses of the three confirmatory samples collected at Ironhouse 24 in December 2019 show final confirmatory values below NM OCD closure criteria for areas where depth to groundwater is greater than 100 feet bgs. There are no anticipated risks to human, ecological or hydrological receptors at the release site. Based on the results of confirmatory sampling and the current state of vegetation at the release site, Vertex requests that restoration

and reclamation of the release area be deemed complete per 19.15.29.13 NMAC.

Vertex requests that Incident nOY1720827033 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 July 13, 2017, release at Ironhouse 24 State Com 1H.

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 and Confirmatory Sample Locations
Attachment 3. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
Attachment 4. Daily Field Report(s) with Photographs
Attachment 5. 48-hr Confirmation Sampling Notification
Attachment 6. Confirmatory Sample Analyses Data Table
Attachment 7. Laboratory Data Report and Chain of Custody Form

References

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

New Mexico Bureau of Geology and Mineral Resources. (2019). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.

New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2019). *Well Log/Meter Information Report.* Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/meterReport.html.

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

New Mexico Water Rights Reporting System. (2019). *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. (2019). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

United States Department of the Interior, Bureau of Land Management. (2019). *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. (2019). *Groundwater for New Mexico: Water Levels*. Retrieved from https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels? .

United State Fish and Wildlife Service. (2019). *National Wetland 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 Devon Energy 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 Devon Energy 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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production Company	**Contact** Danny Velo, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	**Telephone No.** 575-703-3360
Facility Name Ironhouse 24 State Com 1H	**Facility Type** Oil

Surface Owner State	**Mineral Owner** State	**API No** 30-025-41163

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	24	18S	34E	150’	FSL	825’	FEL	Lea

Latitude: 32.7265167 **Longitude:** -103.5080643

NATURE OF RELEASE

Type of Release Oil	**Volume of Release** 1/4bbl	**Volume Recovered** 0bbl
Source of Release Flare	**Date and Hour of Occurrence** July 13, 2017 @ 10:30 AM	**Date and Hour of Discovery** July 13. 2017 @ 10:30 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Shelly Tucker, BLM Olivia Yu, OCD	
By Whom? Ky Scott, Asst. Production Foreman	**Date and Hour** Shelly Tucker, BLM July 13, 2017 @ 10:30 Olivia Yu, OCD July 13, 2017 @ 10:40	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse** N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Flare scrubber swamped out sending oil to the flare causing a fire and release. The gas was shut off to the flare and when it was safe the fire was extinguished.

RECEIVED
By Olivia Yu at 7:24 am, Jul 27, 2017

Describe Area Affected and Cleanup Action Taken.*
Approximately 1/4bbl oil was released in a Northeastern mist onto the location and into the adjacent pasture an area approximately 20’ x 20’ was affected. 0bbls oil were recovered. An environmental contractor will be contacted to assist with delineation and remediation.

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

Signature: Sheila Fisher

Printed Name: Sheila Fisher

Title: **Field Admin Support**

E-mail Address: **Sheila.fisher@dvn.com**

Date: 7/14/17 Phone: **575.748.1829**

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 7/24/2017 Expiration Date:

Conditions of Approval:
Confirmatory laboratory analyses of discrete soil samples (0-6") from the impacted pasture area.

Attached ☐

nOY1720827033

1RP-4768

pOY1720827296

* Attach Additional Sheets If Necessary

Ironhouse 24 State Com 1H

1/4bbl oil_7.13.17

devon

This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Sheila Fisher
Map is current as of: 14-Jul-2017

N

Miles
0 0.01 0.02 0.04 1: 1,779

ATTACHMENT 2

LEGEND

- SOIL SAMPLE
- WELLHEAD
- WELLPAD

BG BACKGROUND SAMPLE
BS BASE SAMPLE

0 15 30 60 Ft
SCALE 1:800

Notes: Aerial Image from ESRI Digital Globe 2017

devon

Site Schematic and Confirmatory Sample Locations
Ironhouse 24 State Com 1H

VERTEX

DRAWN:	NM	FIGURE: 1
APPROVED:	SH	
DATE:	DEC 08/19	

VERSATILITY. EXPERTISE.

Document Path: C:\Users\nmocny\Documents\Natasha Mocny\Projects\Deven Energy\Ironhouse 24 State Com 1H\Figure 1 - Confirmation samples Ironhouse 24 State Com 1H.mxd

ATTACHMENT 3

Table 1. Closure Criteria Determination			
Site Name: Ironhouse 24 State Com 1H			
Spill Coordinates:		X: 32.7265167	Y: -103.5080643
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	**117**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	2,854	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	4,299	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	17,122	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**	1,060	feet
	ii) Within 1000 feet of any fresh water well or spring	>1000	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	818	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
10	Within a 100-year Floodplain	>100	year
NMAC 19.15.29.12 E (Table 1) Closure Criteria		51-100'	<50' 51-100' >100'

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 Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 12926 POD1		L	LE	2	2	3	25	18S	34E	639839	3621631	323	182	117	65
L 03888		L	LE		3	1	19	18S	35E	640253	3622912*	1057	107	70	37
L 07928		L	LE	4	4	1	19	18S	35E	640639	3622915	1272	175		
L 03721		L	LE		3	3	18	18S	35E	640241	3623717*	1816	161	90	71
L 09767		L	LE		3	3	13	18S	34E	638636	3623688*	2091	182	96	86
L 04562		L	LE		3	1	29	18S	35E	641874	3621315*	2164	156	95	61
L 03171		L	LE		3	3	17	18S	35E	641835	3623734*	2699	170	150	20
L 02053		L	LE				20	18S	35E	642464	3622723*	2767	175	78	97
L 02357		L	LE			2	20	18S	35E	642855	3623137*	3271	170	77	93
L 09576		L	LE		1	1	35	18S	34E	637082	3620041*	3327	180	130	50
L 09775		L	LE	1	2	3	14	18S	34E	637249	3624084	3328	183	110	73
L 03765 POD4		L	LE	2	1	2	27	18S	34E	636475	3621831	3332	180	80	100
L 05172		L	LE		3	3	07	18S	35E	640214	3625331*	3402	161	85	76
L 12633 POD1		L	LE	2	2	2	34	18S	34E	636852	3620203	3432	180	117	63
L 04531		L	LE		1	3	14	18S	34E	637016	3624067*	3499	125	100	25
L 05156		L	LE		4	1	17	18S	35E	642224	3624545*	3544	150	90	60
L 02052		L	LE				17	18S	35E	642438	3624337*	3551	190	72	118
L 09742		L	LE		1	4	17	18S	35E	642474	3624312	3561	200		
L 04906		L	LE			3	07	18S	35E	640415	3625532*	3630	155	87	68
L 05574	R	L	LE	1	3	3	12	18S	34E	638509	3625399*	3681			
L 01614		L	LE	3	1	4	12	18S	34E	639305	3625618*	3698	204	85	119
L 11934 POD1		L	LE	3	3	4	35	18S	34E	637806	3618744*	3781	160	105	55
L 04931 X		L	LE		1	3	07	18S	35E	640208	3625735*	3802	212	105	107
L 02349	R	L	LE	3	1	4	07	18S	35E	640891	3625641*	3844	207	85	122
L 04794		L	LE			4	07	18S	35E	641200	3625540*	3848	150	95	55
L 02349 POD2		L	LE	4	1	4	07	18S	35E	641091	3625641*	3905	214	85	129

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

(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	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 02349 POD3	L	LE	4	1	4	07	18S	35E	641091	3625641	3905	220	142	78
L 05079	L	LE		1	3	12	18S	34E	638604	3625702*	3936	159	76	83
L 05444	L	LE		4	3	32	18S	35E	642319	3618899*	3955	80	58	22
L 04975	L	LE	2	2	3	07	18S	35E	640688	3625837*	3982	152	105	47
L 00493	L	LE	1	2	1	05	19S	35E	642290	3618663	4123	100		
L 04851	L	LE		4	2	12	18S	34E	639801	3626130*	4176	155	95	60
L 01613	L	LE	3	1	4	11	18S	34E	637696	3625589*	4203	211	85	126
L 04762	L	LE				06	19S	35E	640945	3617872*	4237	175	130	45
L 02350	L	LE	4	1	3	08	18S	35E	641897	3625650*	4247	216	105	111
L 04211	L	LE		1	3	06	19S	35E	640337	3617672*	4314	130	60	70
L 14371 POD1	L	LE	1	1	2	05	19S	35E	642616	3618661	4328	172	60	112
L 01613 S2	L	LE	2	3	3	11	18S	34E	637095	3625374*	4364	220	99	121
L 09750	L	LE		3	3	22	18S	34E	635440	3622029*	4366	200		
L 04995	L	LE		4	4	34	18S	34E	636700	3618828*	4405	179	105	74
L 05220	L	LE		1	4	06	19S	35E	641131	3617681*	4473	100	55	45
L 13634 POD1	L	LE	3	3	1	27	18S	34E	635352	3621122	4530	182	152	30
L 02499 POD3	L	LE	1	1	1	27	18S	34E	635252	3621814	4555	180	121	59
L 14200 POD1	L	LE	2	2	2	05	19S	35E	642952	3618657	4557	180	60	120
L 10236	L	LE		3	3	27	18S	34E	635466	3620420*	4602			
L 10344 POD2	L	LE		3	3	27	18S	34E	635466	3620420*	4602	142	112	30
L 05139	L	LE		2	1	12	18S	34E	638992	3626517*	4635	150	95	55
L 07361	L	LE		2	1	12	18S	34E	638992	3626517*	4635	202	100	102
L 09428	L	LE	3	4	1	05	19S	35E	642231	3617997*	4640	130		
L 05851	L	LE			1	34	18S	34E	635681	3619816*	4645	240	85	155
L 04778	L	LE		2	1	07	18S	35E	640575	3626545*	4655	150	75	75
L 02680	L	LE		1	2	21	18S	35E	644257	3623357*	4667	190	59	131
L 09762	L	LE		3	3	33	18S	35E	643526	3618913*	4804	160	80	80
L 14200 POD2	L	LE	2	2	2	05	19S	35E	643291	3618631	4815	180	60	120
L 09588	L	LE	4	3	4	16	18S	35E	644349	3623659*	4853	155	84	71

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

(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
L 02679		L	LE		4	4	21	18S	35E	644680	3622151*	4878	200	68	132
L 02679	R	L	LE		4	4	21	18S	35E	644680	3622151*	4878	200	68	132
L 04777		L	LE	1	2	2	07	18S	35E	641279	3626653*	4925	145	85	60
L 04796		L	LE	4	4	3	06	18S	35E	640667	3626847*	4968	150	95	55
L 10202		L	LE		4	4	28	18S	34E	635065	3620414*	4984	70	50	20

Average Depth to Water: **91 feet**

Minimum Depth: **50 feet**

Maximum Depth: **152 feet**

Record Count: 60

UTMNAD83 Radius Search (in meters):

Easting (X): 639805.41 **Northing (Y):** 3621953.41 **Radius:** 5000

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

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 q q 6416 4	Sec	Tws	Rng	X	Y	Distance
L 05762	L	SRO	0	THOMAS F. WELCH & ASSOCIATES	LE	L 05762 X					2 2 2	25	18S	34E	639971	3621795*	229
L 07300	L	PRO	0	AMOCO PRODUCTION COMPANY	LE	L 12926 POD1				Shallow	2 2 3	25	18S	34E	639839	3621631	323
L 12926	L	STK	3	NEW MEXICO STATE LAND OFFICE	LE	L 12926 POD1				Shallow	2 2 3	25	18S	34E	639839	3621631	323
L 05762	L	SRO	0	THOMAS F. WELCH & ASSOCIATES	LE	L 05762					2 2 1	25	18S	34E	639168	3621781*	660
L 03888	L	STK	3	SCHARBAUER CATTLE CO	LE	L 03888				Shallow	3 1	19	18S	35E	640253	3622912*	1057
L 07928	L	STK	0	ENERGY RESERVES GROUP,INC.	LE	L 07928					4 4 1	19	18S	35E	640638	3622915	1272
L 02052	L	UTL	1906	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02751						19	18S	35E	640870	3622709*	1305
L 02751	L	IND	0	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02751						19	18S	35E	640870	3622709*	1305
L 03721	L	PRO	0	FRED POOL DRILLING COMPANY	LE	L 03721				Shallow	3 3	18	18S	35E	640241	3623717*	1816
L 09767	L	PRO	0	MANZANO OIL	LE	L 09767				Shallow	3 3	13	18S	34E	638636	3623688*	2091
L 04562	L	PRO	0	CARPER DRILLING CO	LE	L 04562				Shallow	3 1	29	18S	35E	641874	3621315*	2164
L 02052	L	UTL	1906	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02751 S						18	18S	35E	640844	3624320*	2584
L 02751	L	IND	0	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02751 S						18	18S	35E	640844	3624320*	2584
L 03171	L	PRO	0	SABRE DRILLING COMPANY	LE	L 03171				Shallow	3 3	17	18S	35E	641835	3623734*	2699
L 02052	L	UTL	1906	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02053				Shallow		20	18S	35E	642464	3622723*	2767
L 02053	L	IND	0	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02053				Shallow		20	18S	35E	642464	3622723*	2767
L 00285 A	L	COM	80	VALLEY BANK OF COMMERCE	LE	L 14312 POD1	NA				2 2	27	18S	34E	636843	3621754	2968
L 00442 AA	L	COM	40	BUCKEYE WATER, LLC	LE	L 14312 POD1	NA				2 2	27	18S	34E	636843	3621754	2968

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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
L 00443 C	L	COM	249.4	BUCKEYE WATER, LLC	LE	L 14312 POD1	NA				2	2	27	18S	34E	636843	3621754	2968
L 00498 AA	L	COM	75.6	VALLEY BANK OF COMMERCE	LE	L 14312 POD1	NA				2	2	27	18S	34E	636843	3621754	2968
L 14312	L	EXP	0	PEARCE TRUST	LE	L 14312 POD1	NA				2	2	27	18S	34E	636843	3621754	2968
L 14651	L	EXP	0	PEARCE TRUST	LE	L 14651 POD2	NA				4	4	2	27	18S	34E	636823	3621101	3101
L 00285	L	IRR	120	DARR ANGELL LIVING TRUST	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 00285 A	L	COM	80	BUCKEYE WATER, LLC	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 00442 AA	L	COM	40	BUCKEYE WATER, LLC	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 00443 C	L	COM	249.4	BUCKEYE WATER, LLC	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 00498 AA	L	COM	75.6	VALLEY BANK OF COMMERCE	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 02499	L	IRR	109.2	PEARCE TRUST	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 03765	L	COM	514.17	ANNIE M. GRAHAM	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 13665	L	EXP	0	PEARCE TRUST	LE	L 13665 POD1				Shallow	2	2	2	27	18S	34E	636707	3621754	3103
L 14313	L	EXP	0	PEARCE TRUST	LE	L 14313 POD1	NA				4	2	27	18S	34E	636742	3621137	3170
L 02357	L	COM	0	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 13341 POD1					4	1	2	20	18S	35E	642765	3623148	3192
L 13341	L	PRO	0	MACK ENERGY	LE	L 13341 POD1					4	1	2	20	18S	35E	642765	3623148	3192
L 13351	L	PRO	0	MACK ENERGY	LE	L 13341 POD1					4	1	2	20	18S	35E	642765	3623148	3192
L 13352	L	PRO	0	MACK ENERGY	LE	L 13341 POD1					4	1	2	20	18S	35E	642765	3623148	3192
L 02052	L	UTL	1906	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02357				Shallow			2	20	18S	35E	642855	3623137*	3271
L 02357	L	COM	0	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02357				Shallow			2	20	18S	35E	642855	3623137*	3271
L 13378	L	PRO	0	DEVON ENERGY	LE	L 02357				Shallow			2	20	18S	35E	642855	3623137*	3271
L 13379	L	PRO	0	DEVON ENERGY	LE	L 02357				Shallow			2	20	18S	35E	642855	3623137*	3271
L 13381	L	PRO	0	DEVON ENERGY	LE	L 02357				Shallow			2	20	18S	35E	642855	3623137*	3271

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L 09576	L	PRO	0	MESA PETROLEUM	LE	L 09576				Shallow	1	1	35	18S	34E	637082	3620041*	3327
L 09775	L	PRO	0	SOUTHLAND ROYALTY	LE	L 09775				Shallow	1 2	3	14	18S	34E	637248	3624084	3328
L 13028	L	STK	3	NEW MEXICO STATE LAND OFFICE	LE	L 09775				Shallow	1 2	3	14	18S	34E	637248	3624084	3328
L 00285	L	IRR	120	DARR ANGELL LIVING TRUST	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 00285 A	L	COM	80	BUCKEYE WATER, LLC	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 00442 AA	L	COM	40	BUCKEYE WATER, LLC	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 00443 C	L	COM	249.4	VALLEY BANK OF COMMERCE	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 00498 AA	L	COM	75.6	BUCKEYE WATER, LLC	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 03765	L	COM	514.17	ANNIE M. GRAHAM	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 03765 A	L	COM	12	FARM CREDIT OF N.M., FLCA	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 13566	L	EXP	0	PEARCE TRUST	LE	L 03765 POD4			NON	Shallow	2 1	2	27	18S	34E	636475	3621831	3332
L 05172	L	PRO	0	ROWAN DRILLING COMPANY	LE	L 05172				Shallow	3	3	07	18S	35E	640214	3625331*	3402
L 12633	L	PRO	0	AMTEX ENERGY INC.	LE	L 12633 POD1			NON	Shallow	2 2	2	34	18S	34E	636851	3620203	3432
L 12641	L	PRO	0	NOVA MUD	LE	L 12633 POD1			NON	Shallow	2 2	2	34	18S	34E	636851	3620203	3432
L 12642	L	PRO	0	GLENN'S WATER WELL SERVICE	LE	L 12633 POD1			NON	Shallow	2 2	2	34	18S	34E	636851	3620203	3432
L 13375	L	PRO	0	AMTEX ENERGY	LE	L 12633 POD1			NON	Shallow	2 2	2	34	18S	34E	636851	3620203	3432
L 13664	L	PRO	0	AMTEX ENERGY	LE	L 12633 POD1			NON	Shallow	2 2	2	34	18S	34E	636851	3620203	3432
L 04531	L	PRO	0	CACTUS DRILLING CORPORATION	LE	L 04531				Shallow	1	3	14	18S	34E	637016	3624067*	3499
L 05156	L	PRO	0	LOWE DRILLING COMPANY INC	LE	L 05156				Shallow	4	1	17	18S	35E	642224	3624545*	3544
L 02052	L	UTL	1906	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 02052				Shallow			17	18S	35E	642438	3624337*	3551
L 02357	L	COM	0	SOUTHWESTERN PUBLIC SERVICE CO	LE	L 09742				Shallow	1	4	17	18S	35E	642474	3624312	3561
L 09742	L	PRO	3	LEE CATTLE COMPANY	LE	L 09742				Shallow	1	4	17	18S	35E	642474	3624312	3561

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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
L 13190	L	PRO	0	MANZANO, LLC	LE	L 09742				Shallow	1	4	17	18S	35E	642474	3624312	3561
L 13227	L	PRO	0	COG OPERATING	LE	L 09742				Shallow	1	4	17	18S	35E	642474	3624312	3561
L 13315	L	PRO	0	COG OPERATING	LE	L 09742				Shallow	1	4	17	18S	35E	642474	3624312	3561
L 13316	L	PRO	0	COG OPERATING	LE	L 09742				Shallow	1	4	17	18S	35E	642474	3624312	3561
L 13317	L	PRO	0	COG OPERATING	LE	L 09742				Shallow	1	4	17	18S	35E	642474	3624312	3561
L 04906	L	PRO	0	LLANO DRILLING COMPANY	LE	L 04906				Shallow		3	07	18S	35E	640415	3625532*	3630
L 05574	L	SRO	5	TEXACO INC.	LE	L 05574			R	Shallow	1	3	12	18S	34E	638509	3625399*	3681
L 01613	L	IND	0	NATIONAL POTASH COMPANY	LE	L 01614				Shallow	3	1	12	18S	34E	639305	3625618*	3698
L 01613 A	L	IND	0	NATIONAL POTASH COMPANY	LE	L 01614				Shallow	3	1	12	18S	34E	639305	3625618*	3698
L 01613 B	L	COM	0	NATIONAL POSTASH COMPANY	LE	L 01614				Shallow	3	1	12	18S	34E	639305	3625618*	3698
L 01614	L	IND	0	FREEPORT SULPHUR CO.	LE	L 01614				Shallow	3	1	12	18S	34E	639305	3625618*	3698
L 02675	L	IND	8330	INTREPID MINING NM LLC	LE	L 01614				Shallow	3	1	12	18S	34E	639305	3625618*	3698
L 05763	L	SRO	0	THOMAS F. WELCH & ASSOCIATES	LE	L 05763					2	2	02	19S	34E	638414	3618509*	3714
L 11934	L	STK	3	WILBERTA TIVIS	LE	L 11934 POD1				Shallow	3	3	35	18S	34E	637806	3618744*	3781
L 04931	L	SRO	486	MOBIL PRODUCING TX. & N.M. INC	LE	L 04931 X				Shallow		1	07	18S	35E	640208	3625735*	3802
L 02347	L	IND	0	NATIONAL POTASH COMPANY	LE	L 02349			R	Shallow	3	1	07	18S	35E	640891	3625641*	3844
L 04794	L	PRO	0	MARCUM DRILLING CO	LE	L 04794				Shallow		4	07	18S	35E	641200	3625540*	3848
L 02347	L	IND	0	NATIONAL POTASH COMPANY	LE	L 02349 POD2				Shallow	4	1	07	18S	35E	641091	3625641*	3905
L 02349	L	IND	0	FREEPORT SULPHUR COMPANY	LE	L 02349 POD2				Shallow	4	1	07	18S	35E	641091	3625641*	3905
L 02675	L	IND	8330	U.S. BANK NATIONAL ASSOCIATION	LE	L 02349 POD2				Shallow	4	1	07	18S	35E	641091	3625641*	3905
					LE	L 02349 POD3				Shallow	4	1	07	18S	35E	641091	3625641	3905
L 05079	L	PRO	0	YATES DRILLING	LE	L 05079				Shallow		1	12	18S	34E	638604	3625702*	3936

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L 05444	L	STK	3	GENE DALMONT	LE	L 05444				Shallow	4	3	32	18S	35E	642319	3618899*	3955
L 04975	L	PRO	0	HUMBLE OIL & REFINING COMPANY	LE	L 04975				Shallow	2 2	3	07	18S	35E	640688	3625837*	3982
L 14651	L	EXP	0	PEARCE TRUST	LE	L 14651 POD1	NA				4	4 1	27	18S	34E	635855	3621082	4044
L 04844	L	PRO	0	HUMBLE OIL & REFINING COMPANY	LE	L 04844					3	4 2	12	18S	34E	639700	3626029*	4076
L 05763	L	SRO	0	THOMAS F. WELCH & ASSOCIATES	LE	L 05763 X					2	2 1	02	19S	34E	637609	3618496*	4096
L 00493	L	IRR	100.275	TIMOTHY J. CARLIN	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 00493 A	L	CON	0	WYLIE BROTHERS CONSTRUCTION CO	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 13327	L	PRO	0	FOREST OIL CORPORATION	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 13658	L	PRO	0	COG OPERATING	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 13659	L	PRO	0	COG OPERATING	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 13660	L	PRO	0	COG OPERATING	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 14406	L	PRO	0	XTO HOLDINGS LLC	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 14407	L	PRO	0	XTO HOLDINGS LLC	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 14408	L	PRO	0	XTO HOLDINGS LLC	LE	L 00493	NA			Shallow	1	2 1	05	19S	35E	642290	3618663	4123
L 04851	L	PRO	0	HUMBLE OIL & REFINING COMPANY	LE	L 04851				Shallow	4	2	12	18S	34E	639801	3626130*	4176
L 01613	L	IND	0	NATIONAL POTASH COMPANY	LE	L 01613				Shallow	3	1 4	11	18S	34E	637696	3625589*	4203
L 01613 A	L	IND	0	NATIONAL POTASH COMPANY	LE	L 01613				Shallow	3	1 4	11	18S	34E	637696	3625589*	4203
L 01613 B	L	COM	0	NATIONAL POSTASH COMPANY	LE	L 01613				Shallow	3	1 4	11	18S	34E	637696	3625589*	4203
L 02675	L	IND	8330	U.S. BANK NATIONAL ASSOCIATION	LE	L 01613				Shallow	3	1 4	11	18S	34E	637696	3625589*	4203
L 04931	L	SRO	486	MOBIL PRODUCING TX. & N.M. INC	LE	L 04931 POD1		R				3 1	07	18S	35E	640202	3626138*	4203
L 00285	L	IRR	120	DARR ANGELL LIVING TRUST	LE	L 13129 POD1				Shallow	2	1 1	27	18S	34E	635574	3621843	4232
L 00285 A	L	COM	80	BUCKEYE WATER, LLC	LE	L 13129 POD1				Shallow	2	1 1	27	18S	34E	635574	3621843	4232

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L 00442 AA	L	COM	40	VALLEY BANK OF COMMERCE	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 00443 C	L	COM	249.4	BUCKEYE WATER, LLC	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 00498 AA	L	COM	75.6	BUCKEYE WATER, LLC	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 02499	L	IRR	109.2	PEARCE TRUST	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 03765	L	COM	514.17	FARM CREDIT OF N.M., FLCA	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 13129	L	COM	0	MACK ENERGY	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 13184	L	PRO	0	DEVON ENERGY CO.	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 13185	L	PRO	0	DEVON ENERGY CO.	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 13254	L	PRO	0	DEVON ENERGY CO	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 13255	L	PRO	0	DEVON ENERGY CO	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 13256	L	PRO	0	DEVON ENERGY CO	LE	L 13129 POD1			Shallow	2 1	1	27	18S	34E	635574	3621843	4232
L 04587	L	SRO	0	JOHN H. TRIGG	LE	L 04587 X				2 1	02	19S	34E		637510	3618397*	4232
L 04762	L	COM	44.8	DALE RITTENHOUSE	LE	L 04762			Shallow		06	19S	35E		640945	3617872*	4237
L 02347	L	IND	0	NATIONAL POTASH COMPANY	LE	L 02350			Shallow	4 1	3	08	18S	35E	641897	3625650*	4247
L 02350	L	IND	0	FREEPORT SULPHUR COMPANY	LE	L 02350			Shallow	4 1	3	08	18S	35E	641897	3625650*	4247
L 02675	L	IND	8330	U.S. BANK NATIONAL ASSOCIATION	LE	L 02350			Shallow	4 1	3	08	18S	35E	641897	3625650*	4247
L 04211	L	DOM	3	GENE DALMONT	LE	L 04211			Shallow	1	3	06	19S	35E	640337	3617672*	4314
L 04211 A	L	COM	0	WYLIE BROTHERS CONSTRUCTION CO	LE	L 04211			Shallow	1	3	06	19S	35E	640337	3617672*	4314
L 14397	L	PRO	0	CAZA OPERATING LLC	LE	L 14397 POD1	NA			1 1	2	05	19S	35E	642615	3618661	4328
L 00189 A	L	COM	131.94	CODY C. HUDSON	LE	L 14371 POD1	NA		Shallow	1 1	2	05	19S	35E	642616	3618661	4328
L 14200	L	COM	0	WATER SPUR LLC	LE	L 14371 POD1	NA		Shallow	1 1	2	05	19S	35E	642616	3618661	4328
L 14371	L	EXP	0	WATER SPUR LLC	LE	L 14371 POD1	NA		Shallow	1 1	2	05	19S	35E	642616	3618661	4328

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L 14398	L	PRO	0	CAZA OPERATING LLC	LE	L 14371 POD1	NA			Shallow	1 1	2	05	19S	35E	642616	3618661	4328
L 01979	L	IRR	0	GENE DALMONT	LE	L 01979						1 4	01	19S	34E	639532	3617625*	4337
L 01613	L	IND	0	NATIONAL POTASH COMPANY	LE	L 01613 S2				Shallow	2 3	3	11	18S	34E	637095	3625374*	4364
L 01613 A	L	IND	0	NATIONAL POTASH COMPANY	LE	L 01613 S2				Shallow	2 3	3	11	18S	34E	637095	3625374*	4364
L 01613 B	L	COM	0	NATIONAL POSTASH COMPANY	LE	L 01613 S2				Shallow	2 3	3	11	18S	34E	637095	3625374*	4364
L 02675	L	IND	8330	U.S. BANK NATIONAL ASSOCIATION	LE	L 01613 S2				Shallow	2 3	3	11	18S	34E	637095	3625374*	4364
L 09750	L	PRO	3	PEARCE RANCH	LE	L 09750				Shallow	3	3	22	18S	34E	635440	3622029*	4366
L 04995	L	PRO	0	EASTLAND DRILLING COMPANY	LE	L 04995				Shallow	4	4	34	18S	34E	636700	3618828*	4405
L 04587	L	SRO	0	JOHN H. TRIGG	LE	L 04587					1	1	02	19S	34E	637107	3618390*	4469
L 05220	L	PRO	0	FAYE L KLEIN	LE	L 05220				Shallow	1	4	06	19S	35E	641131	3617681*	4473
L 00285	L	IRR	120	DARR ANGELL LIVING TRUST	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 00285 A	L	COM	80	VALLEY BANK OF COMMERCE	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 00442 AA	L	COM	40	BUCKEYE WATER, LLC	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 00443 C	L	COM	249.4	BUCKEYE WATER, LLC	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 00498 AA	L	COM	75.6	VALLEY BANK OF COMMERCE	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 02499	L	IRR	109.2	PEARCE TRUST	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 03765	L	COM	514.17	LULA V. GRAHAM	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 13634	L	EXP	0	PEARCE TRUST	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 13989	L	PUB	0	PEARCE TRUST	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 13990	L	PUB	0	PEARCE TRUST	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 13991	L	PUB	0	PEARCE TRUST	LE	L 13634 POD1			NON	Shallow	3 3	1	27	18S	34E	635351	3621122	4530
L 00285	L	IRR	120	DARR ANGELL LIVING TRUST	LE	L 02499 POD3				Shallow	1 1	1	27	18S	34E	635251	3621814	4555

***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	Sec	Tws	Rng	X	Y	Distance
L 00285 A	L	COM	80	BUCKEYE WATER, LLC	LE	L 02499 POD3				Shallow	1 1	1	27	18S	34E	635251	3621814	4555
L 00442 AA	L	COM	40	VALLEY BANK OF COMMERCE	LE	L 02499 POD3				Shallow	1 1	1	27	18S	34E	635251	3621814	4555
L 00443 C	L	COM	249.4	VALLEY BANK OF COMMERCE	LE	L 02499 POD3				Shallow	1 1	1	27	18S	34E	635251	3621814	4555
L 00498 AA	L	COM	75.6	VALLEY BANK OF COMMERCE	LE	L 02499 POD3				Shallow	1 1	1	27	18S	34E	635251	3621814	4555
L 02499	L	IRR	109.2	PEARCE TRUST	LE	L 02499 POD3				Shallow	1 1	1	27	18S	34E	635251	3621814	4555
L 00189 A	L	COM	131.94	CODY C. HUDSON	LE	L 14200 POD1	NA		NON	Shallow	2 2	2	05	19S	35E	642952	3618657	4557
L 00493	L	IRR	100.275	SHAYNE KATHLEEN MALONEY CARLIN	LE	L 14200 POD1	NA		NON	Shallow	2 2	2	05	19S	35E	642952	3618657	4557
L 14200	L	COM	0	WATER SPUR LLC	LE	L 14200 POD1	NA		NON	Shallow	2 2	2	05	19S	35E	642952	3618657	4557
L 14400	L	PRO	0	XTO HOLDINGS LLC	LE	L 14200 POD1	NA		NON	Shallow	2 2	2	05	19S	35E	642952	3618657	4557
L 14401	L	PRO	0	XTO HOLDINGS LLC	LE	L 14200 POD1	NA		NON	Shallow	2 2	2	05	19S	35E	642952	3618657	4557
L 14402	L	PRO	0	XTO HOLDINGS LLC	LE	L 14200 POD1	NA		NON	Shallow	2 2	2	05	19S	35E	642952	3618657	4557
L 10236	L	PRO	0	HARVEY YATES	LE	L 10236					3 3		27	18S	34E	635466	3620420*	4602
L 10344	L	STK	3	KENNETH SMITH	LE	L 10344		R			3 3		27	18S	34E	635466	3620420*	4602
					LE	L 10344 POD2				Shallow	3 3		27	18S	34E	635466	3620420*	4602
L 05139	L	PRO	0	MARCUM DRILLING CO	LE	L 05139				Shallow	2 1		12	18S	34E	638992	3626517*	4635
L 07361	L	STK	3	SCHARBAUER CATTLE COMPANY	LE	L 07361				Shallow	2 1		12	18S	34E	638992	3626517*	4635
L 09428	L	PRO	3	DAL MONT RANCH JOINT VENTURE	LE	L 09428				Shallow	3 4	1	05	19S	35E	642231	3617997*	4640
L 05851	L	PRO	0	KERMAC POTASH COMPANY	LE	L 05851				Shallow		1	34	18S	34E	635681	3619816*	4645
L 04778	L	PRO	0	SHARP DRILLING COMPANY	LE	L 04778				Shallow	2 1		07	18S	35E	640575	3626545*	4655
L 02675	L	IND	8330	INTREPID MINING NM LLC	LE	L 02680				Shallow	1 2		21	18S	35E	644257	3623357*	4667
L 02680	L	IND	0	UNITED STATES POTASH COMPANY	LE	L 02680				Shallow	1 2		21	18S	35E	644257	3623357*	4667
L 12958	L	PRO	0	GLENN'S WATER WELL SRVC, INC.	LE	L 12958 POD1				Shallow	3 4	1	02	19S	34E	637498	3617839	4716

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(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 1	Sec	Tws	Rng	X	Y	Distance
L 13017	L	PRO	0	TD WATER SERVICES	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 13287	L	PRO	0	CIMAREX ENERGY COMPANY	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 13624	L	PRO	0	COG OPERATING	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 13625	L	PRO	0	COG OPERATING	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 13626	L	PRO	0	COG OPERATING	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 13963	L	PRO	0	COG OPERATING	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 13964	L	PRO	0	COG OPERATING	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 13965	L	PRO	0	COG OPERATING	LE	L 12958 POD1				Shallow	3	4	1	02	19S	34E	637498	3617839	4716
L 04587	L	SRO	0	JOHN H. TRIGG	LE	L 04587 X3						2	2	03	19S	34E	636705	3618384*	4727
L 09762	L	PRO	0	MESA PETROLEUM	LE	L 09762				Shallow		3	3	33	18S	35E	643526	3618913*	4804
L 00189 A	L	COM	131.94	LAURIE HUDSON	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 14200	L	COM	0	WATER SPUR LLC	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 14216	L	PRO	0	WATER SPUR LLC	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 14218	L	PRO	0	WATER SPUR LLC	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 14219	L	PRO	0	WATER SPUR LLC	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 14403	L	PRO	0	XTO HOLDINGS LLC	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 14404	L	PRO	0	XTO HOLDINGS LLC	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 14405	L	PRO	0	XTO HOLDINGS LLC	LE	L 14200 POD2	NA		NON	Shallow	2	2	2	05	19S	35E	643291	3618631	4815
L 09588	L	PRO	0	W. C. BLANKS	LE	L 09588				Shallow	4	3	4	16	18S	35E	644349	3623659*	4853
L 02675	L	IND	8330	U.S. BANK NATIONAL ASSOCIATION	LE	L 02679		R		Shallow		4	4	21	18S	35E	644680	3622151*	4878
					LE	L 02679 POD3						4	4	21	18S	35E	644680	3622151*	4878
L 02679	L	IND	0	UNITED STATES POTASH COMPANY	LE	L 02679				Shallow		4	4	21	18S	35E	644680	3622151*	4878

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(acre ft per annum)

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(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 640	q 160	q 4	Sec	Tws	Rng	X	Y	Distance
L 04777	L	PRO	0	NOBLE DRILLIN CO	LE	L 04777				Shallow	1	2	2	07	18S	35E	641279	3626653*	4925
L 08869	L	PRO	0	JOSEPH O'NEIL	LE	L 08869				Shallow		2	3	05	19S	35E	642338	3617695*	4954
L 04796	L	PRO	0	A W THOMPSON INC	LE	L 04796				Shallow	4	4	3	06	18S	35E	640667	3626847*	4968
L 10202	L	PLS	1.34	BOGLE FARM - 4 LAKES RANCH	LE	L 10202				Shallow		4	4	28	18S	34E	635065	3620414*	4984

Record Count: 198

UTMNAD83 Radius Search (in meters):

Easting (X): 639805.41 **Northing (Y):** 3621953.41 **Radius:** 5000

Sorted by: Distance

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Ironhouse 24 1H: 173 ft to Watercourse

October 19, 2019

Wetlands

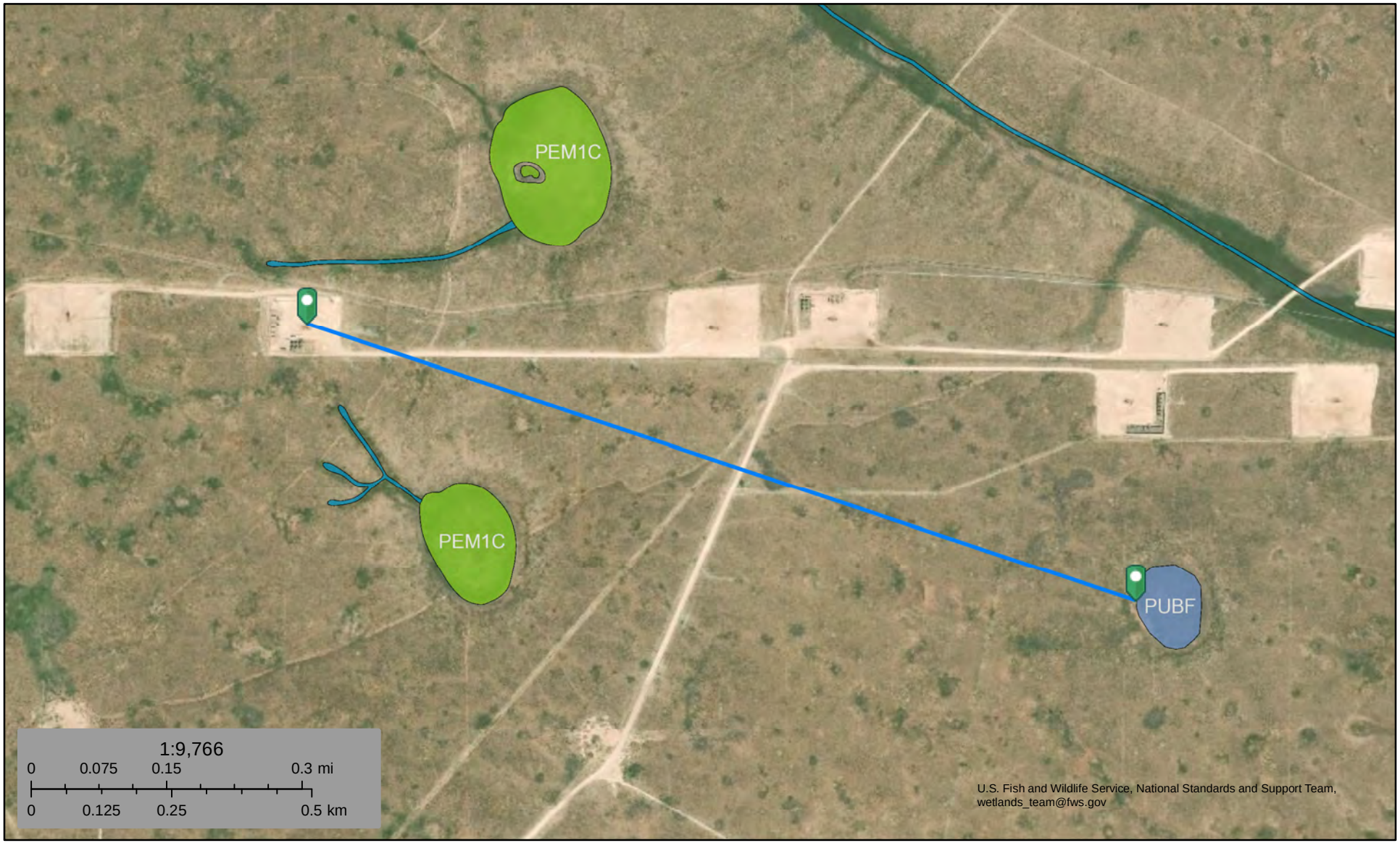
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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

Ironhouse 24 1H - 4,299 ft to Pond



November 1, 2019

Wetlands

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

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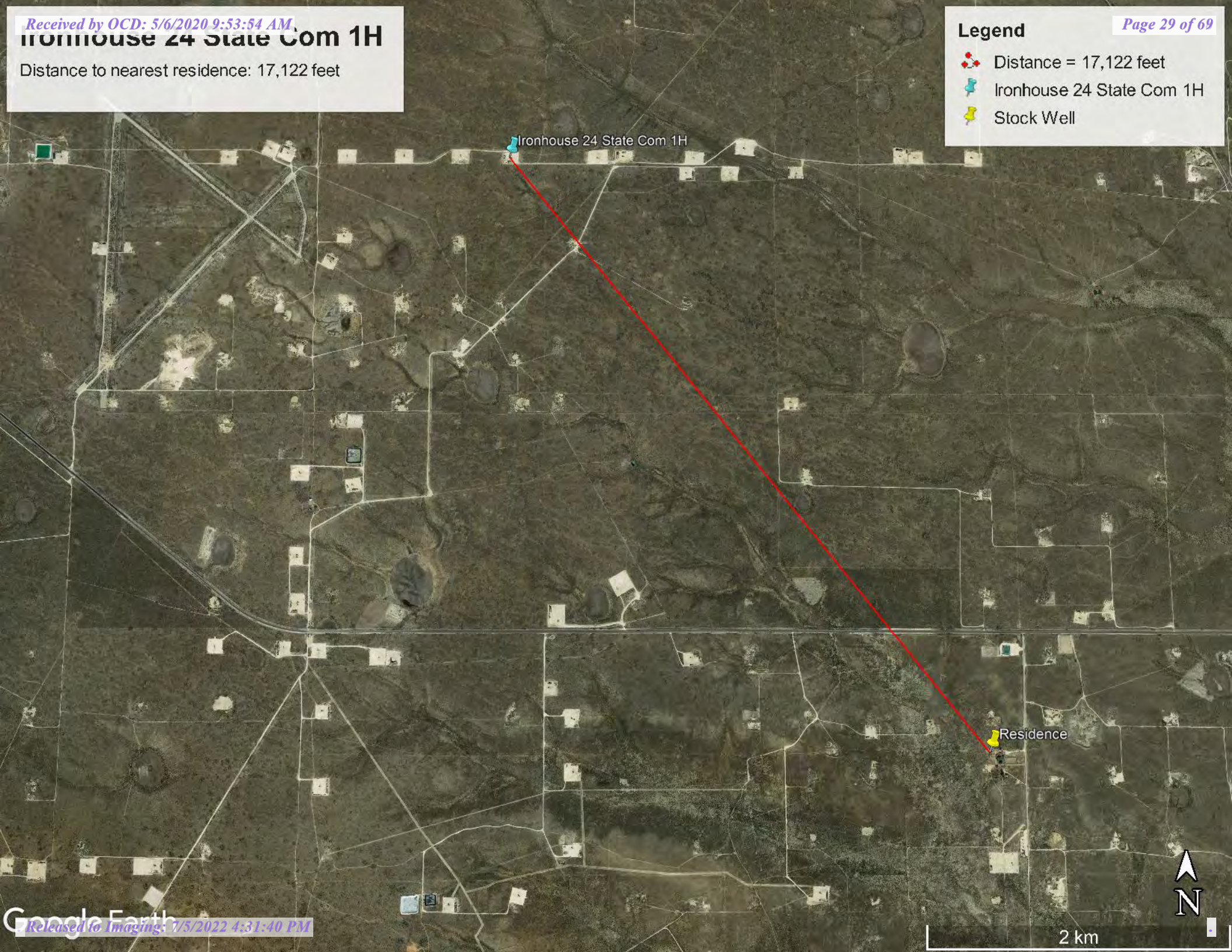
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Ironhouse 24 State Com 1H

Distance to nearest residence: 17,122 feet



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 6416	q 4	q	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
L 12926 POD1	L	LE	Shallow	2	2	3	25	18S	34E	639839	3621631	323	12/21/1974	12/29/1974	01/06/1975	182	117	ABBOTT, MURRELL	46
L 03888	L	LE	Shallow		3	1	19	18S	35E	640253	3622912*	1057	06/06/1958	06/06/1958	06/12/1958	107	70		99
L 07928	L	LE		4	4	1	19	18S	35E	640639	3622915	1272			10/26/1978	175			46
L 03721	L	LE	Shallow		3	3	18	18S	35E	640241	3623717*	1816	10/28/1957	10/28/1957	11/06/1957	161	90	BURKE, EDWARD B.	111
L 09767	L	LE	Shallow		3	3	13	18S	34E	638636	3623688*	2091	12/06/1985	12/06/1985	12/31/1985	182	96	GLENN, CLARK A."CORKY" (LD)	421
L 04562	L	LE	Shallow		3	1	29	18S	35E	641874	3621315*	2164	12/20/1960	12/21/1960	12/29/1960	156	95		111
L 03171	L	LE	Shallow		3	3	17	18S	35E	641835	3623734*	2699	03/30/1956	03/30/1956	05/31/1956	170	150	ABBOTT, MURRELL	46
L 02053	L	LE	Shallow				20	18S	35E	642464	3622723*	2767	01/27/1953	02/13/1953	02/24/1953	175	78	M.I. SIGNER	17
L 02357	L	LE	Shallow			2	20	18S	35E	642855	3623137*	3271	11/02/1953	12/02/1953	12/17/1953	170	77	E. BARRON	30
L 09576	L	LE	Shallow		1	1	35	18S	34E	637082	3620041*	3327	10/24/1984	10/24/1984	10/29/1984	180	130	GLENN, CLARK A."CORKY" (LD)	421
L 09775	L	LE	Shallow	1	2	3	14	18S	34E	637249	3624084	3328	12/30/1985	12/30/1985	01/08/1986	183	110	GLENN, CLARK A."CORKY" (LD)	421
L 03765 POD4	L	LE	Shallow	2	1	2	27	18S	34E	636475	3621831	3332	04/14/2014	04/22/2014	07/02/2014	180	80	NORRIS, JOHN D.	1682
L 05172	L	LE	Shallow		3	3	07	18S	35E	640214	3625331*	3402	06/06/1963	06/09/1963	06/20/1963	161	85		111
L 12633 POD1	L	LE	Shallow	2	2	2	34	18S	34E	636852	3620203	3432	12/10/2010	12/11/2010	12/17/2010	180	117	GLENN, TRAVIS (LD)	421
L 04531	L	LE	Shallow		1	3	14	18S	34E	637016	3624067*	3499	09/22/1960	09/23/1960	10/24/1960	125	100	ERICKSON, W.R.	298
L 05156	L	LE	Shallow		4	1	17	18S	35E	642224	3624545*	3544	05/20/1963	05/20/1963	05/29/1963	150	90		46

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(NAD83 UTM in meters)

(in feet)

POD Number	POD Code	Sub-basin	County	Source	q 6416	q	q 4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
L 02052		L	LE	Shallow				17	18S	35E	642438	3624337*	3551	02/17/1953	03/05/1953	03/17/1953	190	72	A.M. BRININSTOOL	17
L 04906		L	LE	Shallow			3	07	18S	35E	640415	3625532*	3630	05/11/1962	05/12/1962	05/17/1962	155	87	BURKE, EDWARD B.	111
L 01614		L	LE	Shallow	3	1	4	12	18S	34E	639305	3625618*	3698	03/01/1955	03/03/1955	03/31/1955	204	85	MURRELL ABBOTT	46
L 11934 POD1		L	LE	Shallow	3	3	4	35	18S	34E	637806	3618744*	3781	10/13/2006	10/20/2006	10/24/2006	160	105	THOMPSON, STEVE (LD)	1414
L 04931 X		L	LE	Shallow		1	3	07	18S	35E	640208	3625735*	3802	10/05/1964	10/07/1964	10/15/1964	212	105	MURRELL ABBOTT	46
L 02349	R	L	LE	Shallow	3	1	4	07	18S	35E	640891	3625641*	3844	03/21/1955	03/23/1955	12/01/1960	207	85	MURRELL ABBOTT	46
L 04794		L	LE	Shallow			4	07	18S	35E	641200	3625540*	3848	01/27/1962	01/27/1962	02/01/1962	150	95		46
L 02349 POD2		L	LE	Shallow	4	1	4	07	18S	35E	641091	3625641*	3905	11/17/1960	11/21/1960	12/01/1960	214	85	MURRELL ABBOTT JR.	46
L 02349 POD3		L	LE	Shallow	4	1	4	07	18S	35E	641091	3625641	3905	03/14/2013	03/17/2013	09/19/2014	220	142	HAUSLADEN, JAMES M.	368
L 05079		L	LE	Shallow		1	3	12	18S	34E	638604	3625702*	3936	03/15/1963	03/16/1963	03/28/1963	159	76		34
L 05444		L	LE	Shallow		4	3	32	18S	35E	642319	3618899*	3955	09/29/1964	09/29/1964	10/02/1964	80	58	BURKE, EDWARD B.	111
L 04975		L	LE	Shallow	2	2	3	07	18S	35E	640688	3625837*	3982	09/05/1962	09/05/1962	09/17/1962	152	105	MURRELL ABBOTT	46
L 04844		L	LE		3	4	2	12	18S	34E	639700	3626029*	4076			04/19/1962				
L 00493		L	LE	Shallow	1	2	1	05	19S	35E	642290	3618663	4123		06/30/1948	03/28/1949	100		HAM BISHOP	
L 04851		L	LE	Shallow		4	2	12	18S	34E	639801	3626130*	4176	03/20/1962	03/20/1962	03/29/1962	155	95	MURRELL ABBOTT	46
L 01613		L	LE	Shallow	3	1	4	11	18S	34E	637696	3625589*	4203	03/15/1955	03/16/1955	03/31/1955	211	85	MURRELL ABBOTT	46
L 04762		L	LE	Shallow				06	19S	35E	640945	3617872*	4237	05/07/1962	05/08/1962	05/11/1962	175	130		208
L 02350		L	LE	Shallow	4	1	3	08	18S	35E	641897	3625650*	4247	03/01/1960	03/05/1960	03/17/1960	216	105	MURRELL ABBOTT	46
L 04211		L	LE	Shallow		1	3	06	19S	35E	640337	3617672*	4314	07/25/1959	07/26/1959	08/13/1959	130	60		99
L 14371 POD1		L	LE	Shallow	1	1	2	05	19S	35E	642616	3618661	4328	10/24/2017	10/27/2017	10/31/2017	172	60	ROY TAYLOR	172

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(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-basin Code	County	Source	q 6416	q 4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
L 01613 S2		L LE	Shallow	2 3	3	11	18S	34E	637095	3625374*	4364	12/31/1968	12/31/1968	04/14/1969	220	99	MURRELL ABBOTT	46
L 04995		L LE	Shallow		4 4	34	18S	34E	636700	3618828*	4405	10/21/1962	10/21/1962	10/29/1962	179	105	MURRELL ABBOTT	46
L 05220		L LE	Shallow		1 4	06	19S	35E	641131	3617681*	4473	08/01/1963	08/31/1963	08/26/1964	100	55	MUSSELWHITE, O.R.	99
L 13634 POD1		L LE	Shallow	3 3	1	27	18S	34E	635352	3621122	4530	08/27/2014	08/28/2014	08/19/2015	182	152	NORRIS, JOHN D.	1682
L 02499 POD3		L LE	Shallow	1 1	1	27	18S	34E	635252	3621814	4555	02/13/2014	02/21/2014	06/18/2014	180	121	JOHN NORRIS	1682
L 14200 POD1		L LE	Shallow	2 2	2	05	19S	35E	642952	3618657	4557	10/03/2016	10/04/2016	10/05/2016	180	60	TAYLOR, ROY A.	1626
L 10236		L LE			3 3	27	18S	34E	635466	3620420*	4602	02/20/1992	02/20/1992	02/26/1992			GLENN, CLARK A."CORKY" (LD)	421
L 10344 POD2		L LE	Shallow		3 3	27	18S	34E	635466	3620420*	4602	01/03/2000	01/10/2000	02/08/2000	142	112	HNULIK, BOBBY	763
L 05139		L LE	Shallow		2 1	12	18S	34E	638992	3626517*	4635	05/10/1963	05/10/1963	05/24/1963	150	95		46
L 07361		L LE	Shallow		2 1	12	18S	34E	638992	3626517*	4635	04/11/1975	04/13/1975	04/21/1975	202	100	MUSSELWHITE, O.R.	99
L 09428		L LE	Shallow	3 4	1	05	19S	35E	642231	3617997*	4640	02/18/1984	02/18/1984	02/22/1984	130		GLENN, CLARK A."CORKY" (LD)	421
L 05851		L LE	Shallow		1	34	18S	34E	635681	3619816*	4645	01/28/1966	01/28/1966	02/03/1966	240	85		46
L 04778		L LE	Shallow		2 1	07	18S	35E	640575	3626545*	4655	12/18/1961	12/19/1961	03/28/1963	150	75		46
L 02680		L LE	Shallow		1 2	21	18S	35E	644257	3623357*	4667	01/16/1957	02/01/1957	02/13/1957	190	59	EMMETT BARRON	30
L 09762		L LE	Shallow		3 3	33	18S	35E	643526	3618913*	4804	11/04/1985	11/04/1985	11/08/1985	160	80	GLENN, CLARK A."CORKY" (LD)	421
L 14200 POD2		L LE	Shallow	2 2	2	05	19S	35E	643291	3618631	4815	09/29/2016	09/30/2016	10/05/2016	180	60	TAYLOR, ROY A.	1626
L 09588		L LE	Shallow	4 3	4	16	18S	35E	644349	3623659*	4853	11/27/1984	11/28/1984	12/05/1984	155	84	ABBOTT, MURRELL	46
L 02679		L LE	Shallow		4 4	21	18S	35E	644680	3622151*	4878	02/07/1957	11/15/1976	03/04/1957	200	68	EMMETT BARRON	30
L 02679	R	L LE	Shallow		4 4	21	18S	35E	644680	3622151*	4878	02/07/1957	11/15/1976	03/04/1957	200	68	EMMETT BARRON	30
L 04777		L LE	Shallow	1 2	2	07	18S	35E	641279	3626653*	4925	12/22/1961	12/23/1961	01/16/1962	145	85		99

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

(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 6416	q 4	q	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
L 04796	L	LE	Shallow	4	4	3	06	18S	35E	640667	3626847*	4968	01/25/1962	01/25/1962	01/29/1962	150	95		46

Record Count: 57

UTMNAD83 Radius Search (in meters):

Easting (X): 639805.41 **Northing (Y):** 3621953.41 **Radius:** 5000

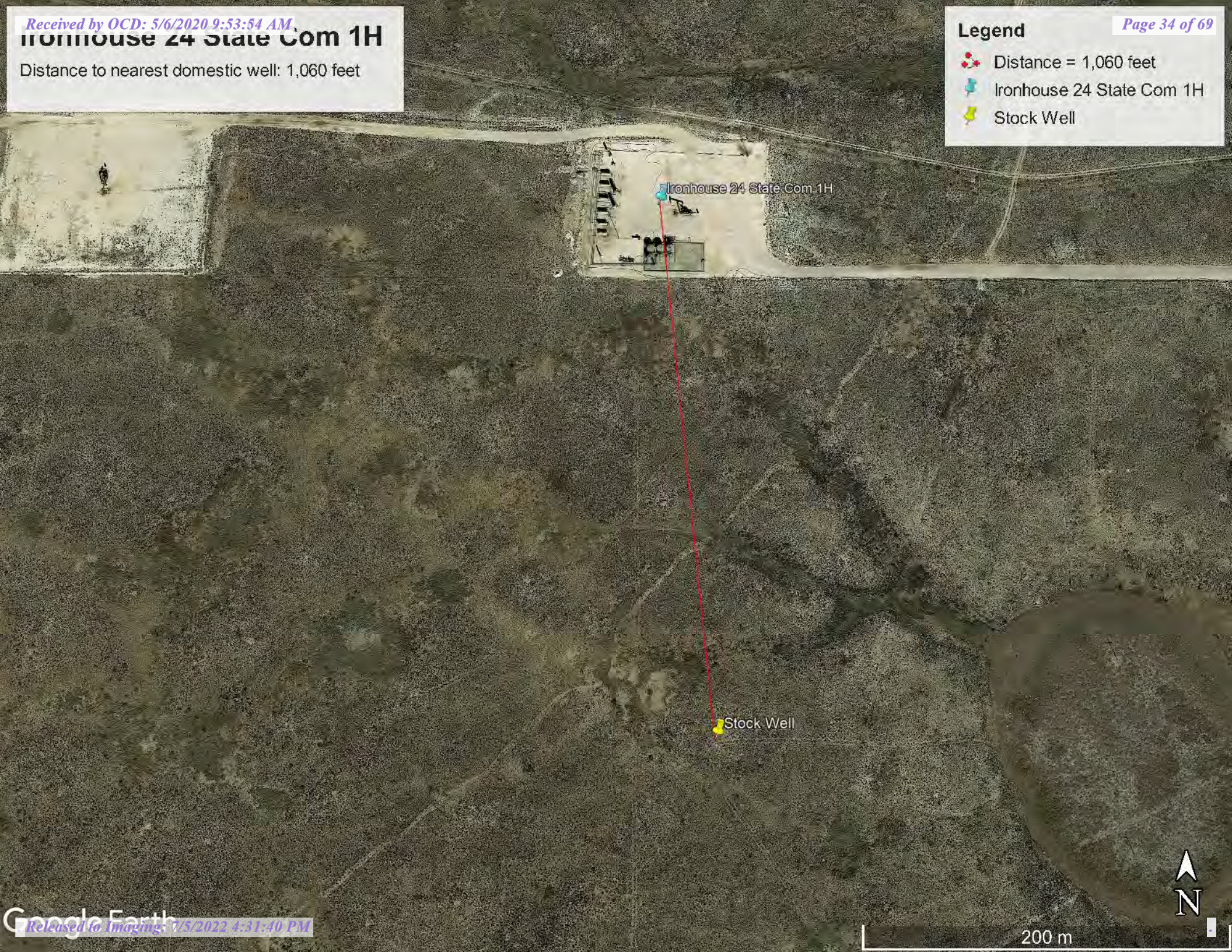
***UTM location was derived from PLSS - see Help**

Ironhouse 24 State Com 1H

Distance to nearest domestic well: 1,060 feet

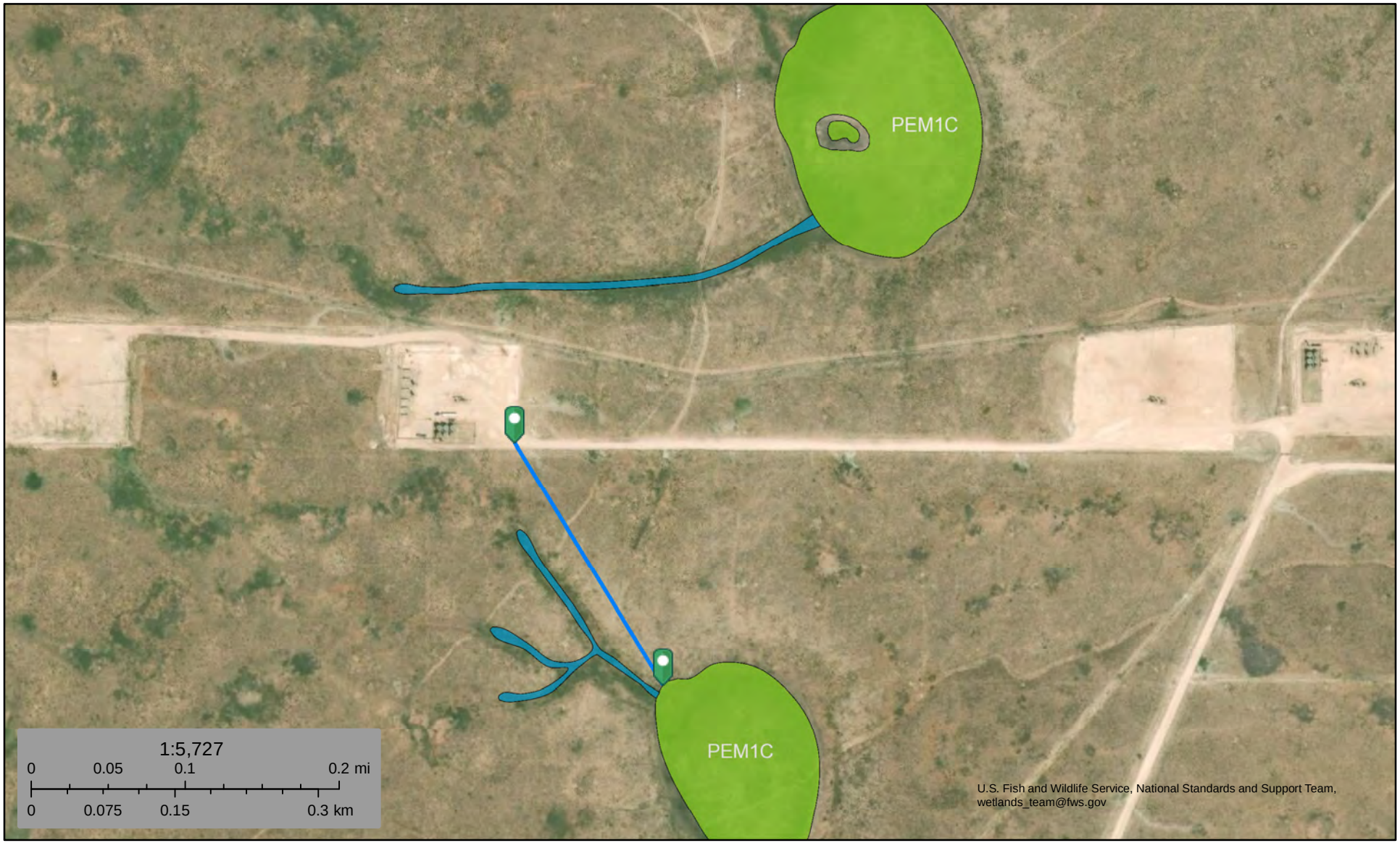
Legend

- Distance = 1,060 feet
- Ironhouse 24 State Com 1H
- Stock Well



U.S. Fish and Wildlife Service
National Wetlands Inventory

Ironhouse 24 1H: 818 ft to Wetland



October 19, 2019

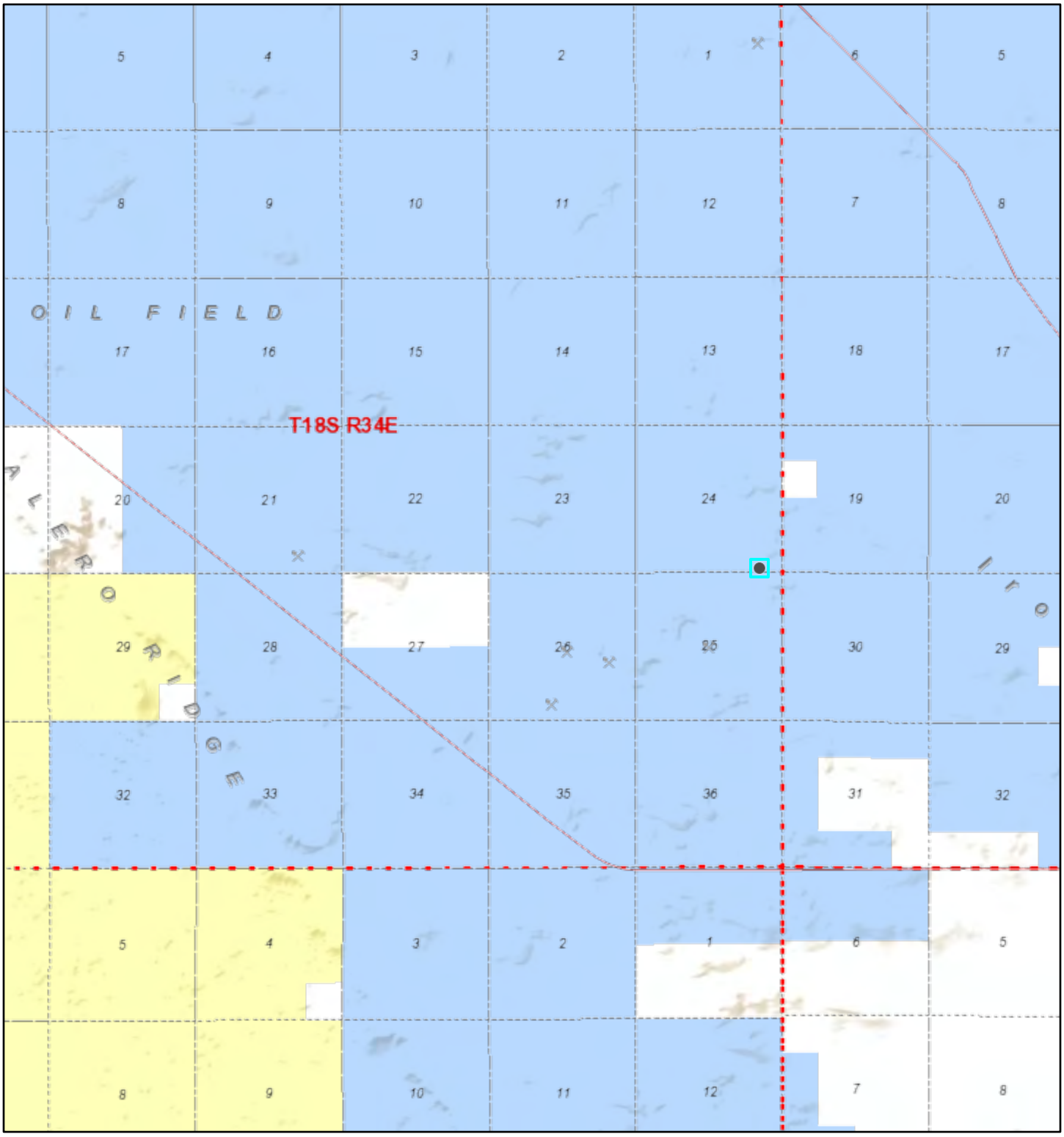
Wetlands

- 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 Ironhouse 24 State Com 1H



11/1/2019, 9:29:12 AM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

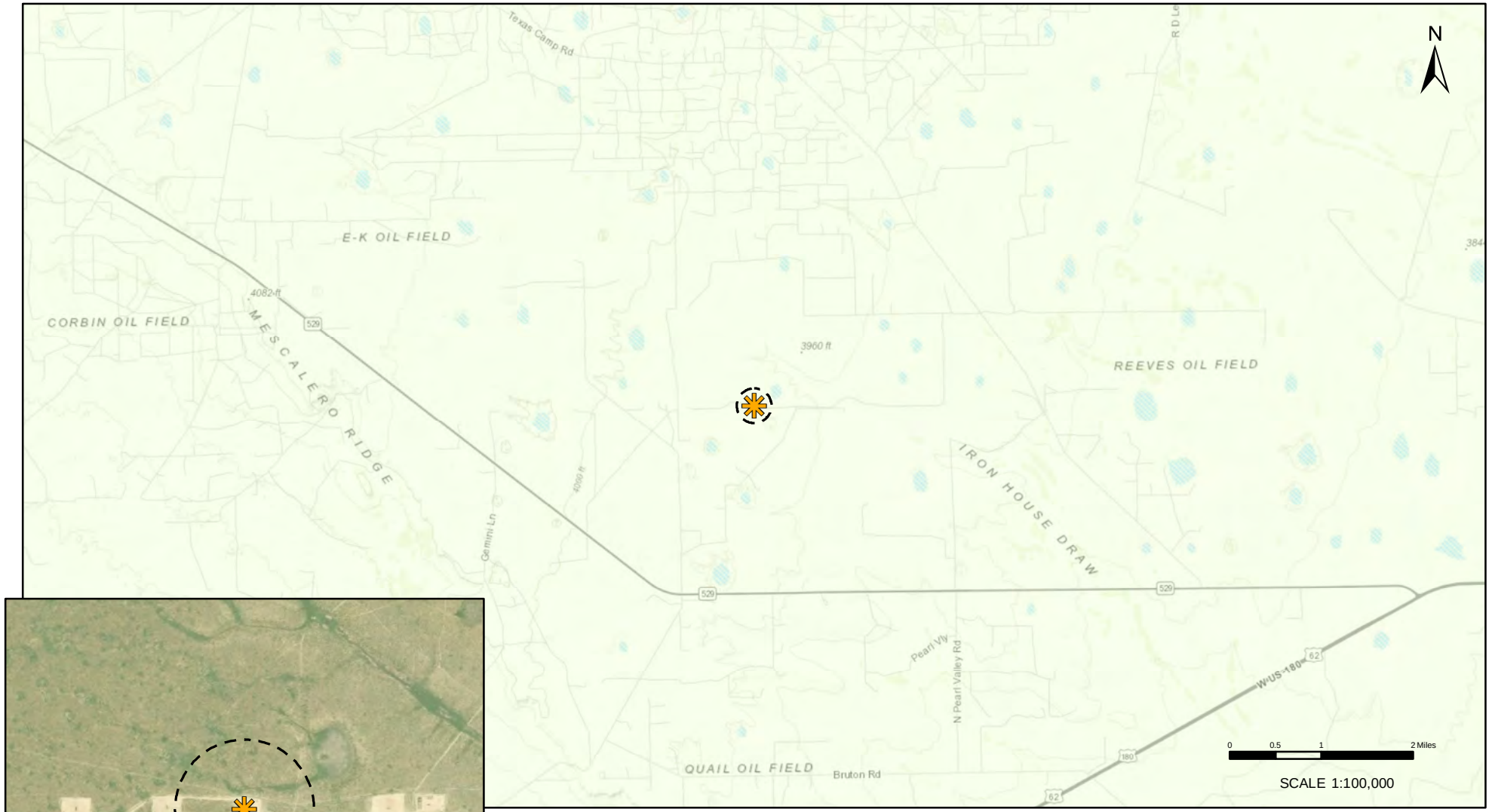
Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.

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)



LEGEND

SITE

1000FT BUFFER

KARST POTENTIAL

CRITICAL

HIGH

MEDIUM

LOW

Notes: Aerial Image from ESRI Digital Globe 2018

devon

Karst Potential
Ironhouse 24
State Com 1H

VERTEX

DRAWN:	NM
APPROVED:	SH
DATE:	OCT 22/19

FIGURE: 1

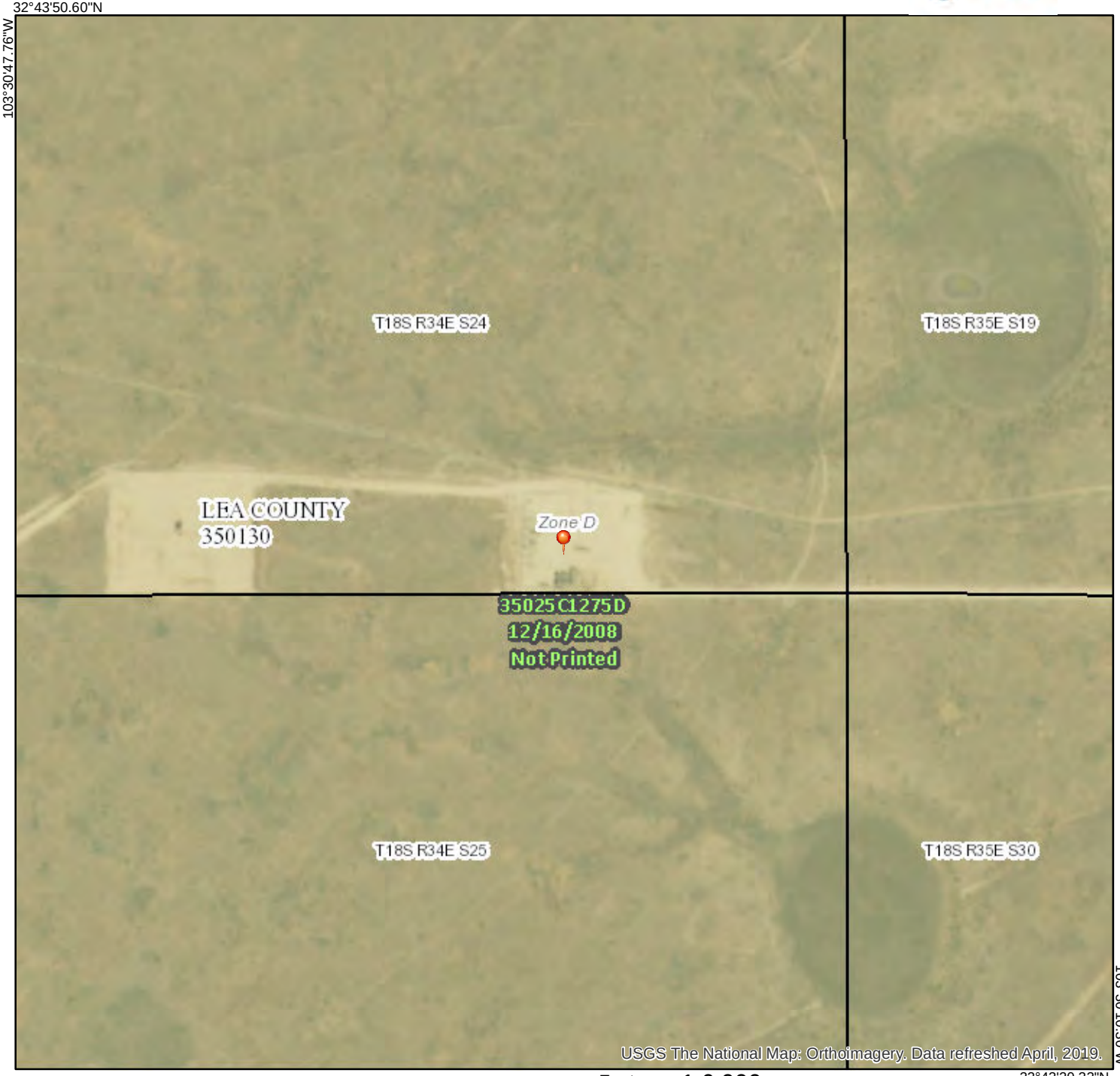
VERSATILITY. EXPERTISE.

National Flood Hazard Layer FIRMette

FEMA

32°43'50.60"N

103°30'47.76"W



103°30'10.30"W

32°43'20.33"N

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 10/19/2019 at 1:22:06 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.

Lea County, New Mexico

KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw46
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough and similar soils: 45 percent
Lea and similar soils: 25 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough

Setting

Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 95 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Description of Lea

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam
Bk - 10 to 18 inches: loam
Bkk - 18 to 26 inches: gravelly fine sandy loam
Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 90 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 3.0
Available water storage in profile: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Sandy Loam 12-17" PZ (R077DY047TX)
Hydric soil rating: No

Minor Components

Douro

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Sandy Loam 12-17" PZ (R077DY047TX)
Hydric soil rating: No

Kenhill

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clay Loam 12-17" PZ (R077DY038TX)
Hydric soil rating: No

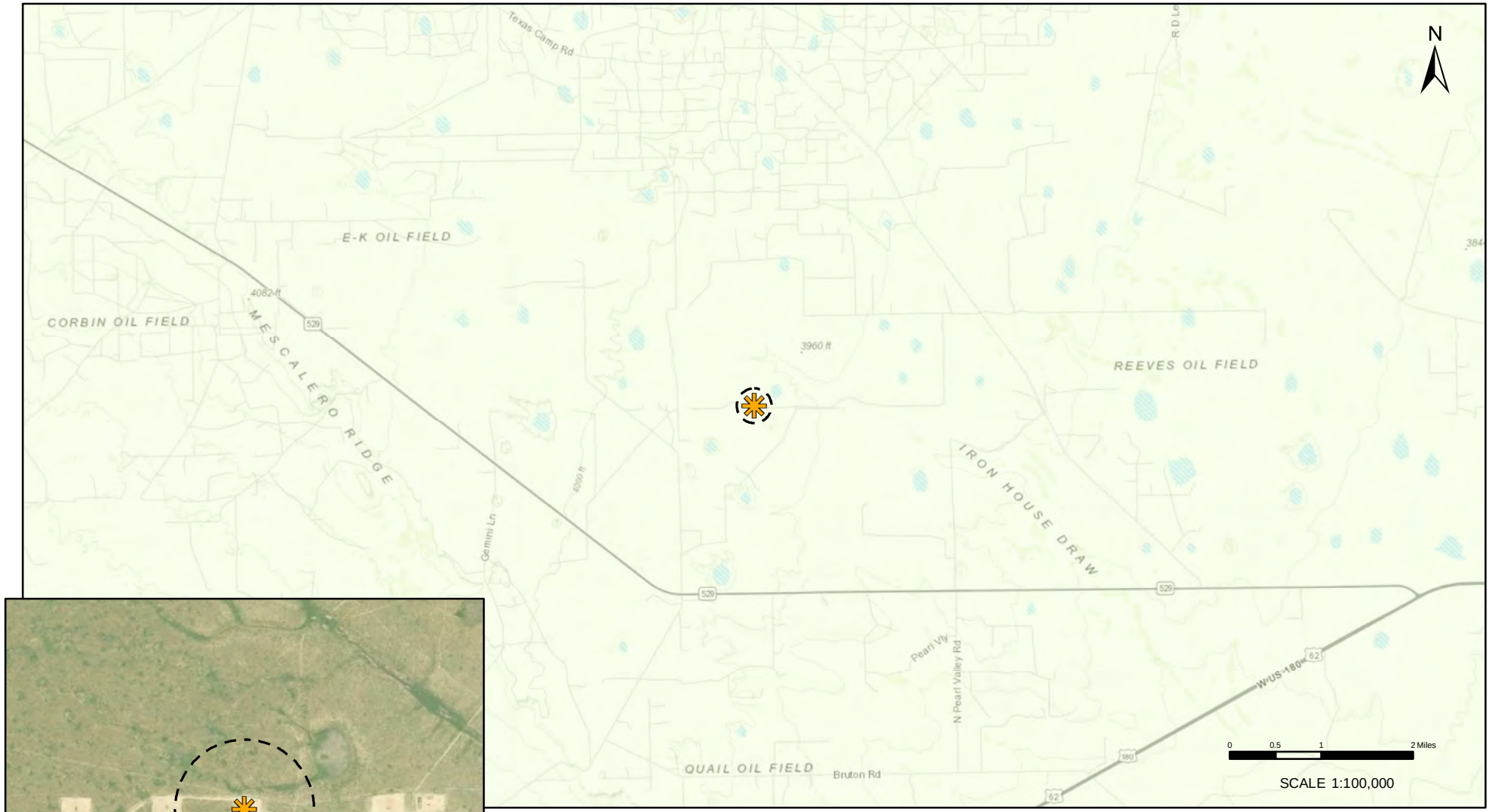
Spraberry

Percent of map unit: 6 percent
Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Data Source Information

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

Ironhouse 24 State Com 1H - Nearest Intermittent Stream



LEGEND

SITE

1000FT BUFFER

KARST POTENTIAL

CRITICAL

HIGH

MEDIUM

LOW

Notes: Aerial Image from ESRI Digital Globe 2018

devon

Karst Potential
Ironhouse 24
State Com 1H

VERTEX

DRAWN:	NM
APPROVED:	SH
DATE:	OCT 22/19

FIGURE: 1

VERSATILITY. EXPERTISE.

ATTACHMENT 4

Daily Site Visit Report

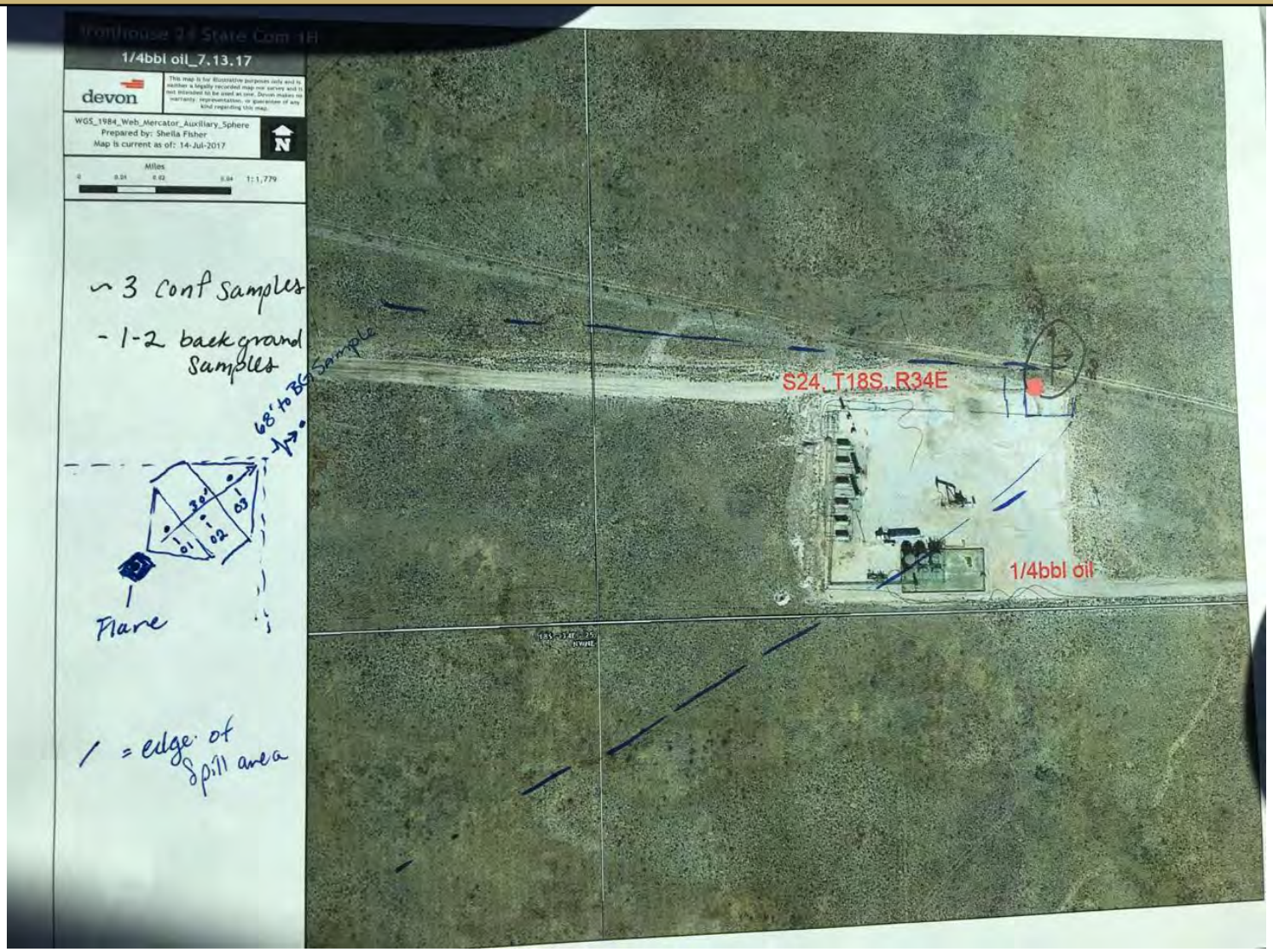
Client:	Devon Energy Corporation	Inspection Date:	12/5/2019
Site Location Name:	Ironhouse 24 State Com 1H	Report Run Date:	12/5/2019 9:22 PM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Natalie Gordon	API #:	30-025-41163
Client Contact Name:	Amanda Davis	Reference	Water Dump / Heater Treater
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	12/5/2019 9:24 AM
Arrived at Site	12/5/2019 10:37 AM
Departed Site	12/5/2019 12:59 PM
Returned to Office	12/5/2019 2:03 PM

Daily Site Visit Report

VERTEX

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

10:38 Take confirmation samples of flare fire spray spill.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: West

Flare at which the fire occurred.

Viewing Direction: Northwest

Flare where fire occurred.

Viewing Direction: North

Sample locations.

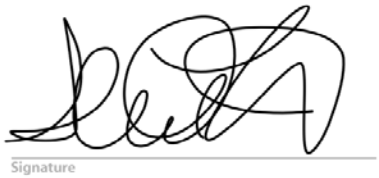
Viewing Direction: Southwest

Background sample location

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sharlene Harvester

Signature: 
Signature

ATTACHMENT 5

Natalie Gordon

From: Natalie Gordon
Sent: Tuesday, December 3, 2019 12:45 PM
To: emnrd-ocd-district1spills@state.nm.us; ramona.marcus@state.nm.us; Mike Bratcher (mike.bratcher@state.nm.us)
Cc: Davis, Amanda; Dennis Williams (DWilliams@vertex.ca)
Subject: RE: 1RP-4768: Ironhouse 24 State Com 1H 48-hr Sampling Notification - Devon Energy

Correction: sampling will take place on Thursday, December 5, 2019 at 2:00pm at Ironhouse 24 State Com 1H.

From: Natalie Gordon
Sent: Tuesday, December 3, 2019 12:39 PM
To: emnrd-ocd-district1spills@state.nm.us; ramona.marcus@state.nm.us; Mike Bratcher (mike.bratcher@state.nm.us) <mike.bratcher@state.nm.us>
Cc: Davis, Amanda <Amanda.Davis@dvn.com>; Dennis Williams (DWilliams@vertex.ca) <DWilliams@vertex.ca>
Subject: 1RP-4768: Ironhouse 24 State Com 1H 48-hr Sampling Notification - Devon Energy

All:

Please accept this email as 48-hr notification that Vertex Resource Services Inc. has scheduled confirmation sampling to be conducted at Ironhouse 24 State Com 1H for an oil release that occurred on July 13, 2017. The reference number for this incident is 1RP-4768.

On December 4, 2019 beginning at 2:00 p.m., Vertex personnel will be onsite to collect confirmation samples for closure of the above referenced incident.

If you need assistance with directions to the site, or have any questions or concerns, please do not hesitate to contact me.

Thank you,
Natalie

ATTACHMENT 6

Client Name: Devon Energy Production Company
Site Name: Ironhouse 24 State Com 1H
Project #: 19E-00575-033
Lab Report: 1912273

Table 2. Confirmatory Soil Samples - Depth to Groundwater >_100 feet

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene (mg/kg)	BTEX (Total) (mg/kg)	Gasoline Range Organics (GRO) (mg/kg)	Diesel Range Organics (DRO) (mg/kg)	Motor Oil Range Organics (MRO) (mg/kg)	(GRO + DRO) (mg/kg)	Total Petroleum Hydrocarbons (TPH) (mg/kg)	Chloride (mg/kg)
BG 19-01	0	12/5/2019	<0.024	<0.219	<4.9	<9.4	<47	<14.3	<61.3	<60
BS 19-01	0	12/5/2019	<0.023	<0.207	<4.6	<9.6	<48	<14.2	<62.2	140
BS 19-02	0	12/5/2019	<0.024	<0.215	<4.8	<9.9	<49	<14.7	<63.7	180
BS 19-03	0	12/5/2019	<0.025	<0.222	<4.9	<9.4	<47	<14.3	<61.3	60

Bold and shaded indicates exceedance outside of applied action level

ATTACHMENT 7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 12, 2019

Natalie Gordon

Vertex Resource Group Ltd.
213 S. Mesa St
Carlsbad, NM 88220
TEL:
FAX

RE: Ironhouse 24 1H Flare Fire OrderNo.: 1912273

Dear Natalie Gordon:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/6/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1912273**
Date Reported: **12/12/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd. **Client Sample ID:** BG19-01 0'
Project: Ironhouse 24 1H Flare Fire **Collection Date:** 12/5/2019 11:31:00 AM
Lab ID: 1912273-001 **Matrix:** SOIL **Received Date:** 12/6/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/11/2019 4:28:10 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/11/2019 4:28:10 PM
Surr: DNOP	80.3	70-130		%Rec	1	12/11/2019 4:28:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/9/2019 4:41:32 PM
Surr: BFB	79.4	66.6-105		%Rec	1	12/9/2019 4:41:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/9/2019 4:41:32 PM
Toluene	ND	0.049		mg/Kg	1	12/9/2019 4:41:32 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/9/2019 4:41:32 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/9/2019 4:41:32 PM
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	12/9/2019 4:41:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	12/10/2019 12:49:10 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912273**
Date Reported: **12/12/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd. **Client Sample ID:** BS19-01 0'
Project: Ironhouse 24 1H Flare Fire **Collection Date:** 12/5/2019 12:11:00 PM
Lab ID: 1912273-002 **Matrix:** SOIL **Received Date:** 12/6/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/11/2019 4:37:17 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/11/2019 4:37:17 PM
Surr: DNOP	87.7	70-130		%Rec	1	12/11/2019 4:37:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/9/2019 5:05:07 PM
Surr: BFB	81.6	66.6-105		%Rec	1	12/9/2019 5:05:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/9/2019 5:05:07 PM
Toluene	ND	0.046		mg/Kg	1	12/9/2019 5:05:07 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/9/2019 5:05:07 PM
Xylenes, Total	ND	0.092		mg/Kg	1	12/9/2019 5:05:07 PM
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	12/9/2019 5:05:07 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	140	60		mg/Kg	20	12/10/2019 1:01:30 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912273**
Date Reported: **12/12/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd. **Client Sample ID:** BS19-02 0'
Project: Ironhouse 24 1H Flare Fire **Collection Date:** 12/5/2019 11:51:00 AM
Lab ID: 1912273-003 **Matrix:** SOIL **Received Date:** 12/6/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/11/2019 4:46:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/11/2019 4:46:23 PM
Surr: DNOP	78.4	70-130		%Rec	1	12/11/2019 4:46:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/9/2019 5:28:38 PM
Surr: BFB	80.4	66.6-105		%Rec	1	12/9/2019 5:28:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/9/2019 5:28:38 PM
Toluene	ND	0.048		mg/Kg	1	12/9/2019 5:28:38 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/9/2019 5:28:38 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/9/2019 5:28:38 PM
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	12/9/2019 5:28:38 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	180	60		mg/Kg	20	12/10/2019 1:13:51 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912273**
Date Reported: **12/12/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resource Group Ltd. **Client Sample ID:** BS19-03 0'
Project: Ironhouse 24 1H Flare Fire **Collection Date:** 12/5/2019 11:41:00 AM
Lab ID: 1912273-004 **Matrix:** SOIL **Received Date:** 12/6/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	750	9.4		mg/Kg	1	12/11/2019 4:55:27 PM
Motor Oil Range Organics (MRO)	120	47		mg/Kg	1	12/11/2019 4:55:27 PM
Surr: DNOP	77.3	70-130		%Rec	1	12/11/2019 4:55:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/9/2019 5:52:13 PM
Surr: BFB	79.6	66.6-105		%Rec	1	12/9/2019 5:52:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	12/9/2019 5:52:13 PM
Toluene	ND	0.049		mg/Kg	1	12/9/2019 5:52:13 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/9/2019 5:52:13 PM
Xylenes, Total	ND	0.099		mg/Kg	1	12/9/2019 5:52:13 PM
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	12/9/2019 5:52:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	60	59		mg/Kg	20	12/10/2019 1:50:54 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912273**
12-Dec-19

Client: Vertex Resource Group Ltd.
Project: Ironhouse 24 1H Flare Fire

Sample ID: **MB-49232**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **49232**	RunNo: **65035**							
Prep Date: **12/9/2019**	Analysis Date: **12/9/2019**	SeqNo: **2231761**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49232**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **49232**	RunNo: **65035**							
Prep Date: **12/9/2019**	Analysis Date: **12/9/2019**	SeqNo: **2231762**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912273**

12-Dec-19

Client: Vertex Resource Group Ltd.

Project: Ironhouse 24 1H Flare Fire

Sample ID: **LCS-49249**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **49249**	RunNo: **65093**							
Prep Date: **12/10/2019**	Analysis Date: **12/11/2019**	SeqNo: **2233725**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.9		5.000		118	70	130			

Sample ID: **MB-49249**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **49249**	RunNo: **65093**							
Prep Date: **12/10/2019**	Analysis Date: **12/11/2019**	SeqNo: **2233726**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	14		10.00		136	70	130			S

Sample ID: **LCS-49218**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **49218**	RunNo: **65093**							
Prep Date: **12/9/2019**	Analysis Date: **12/11/2019**	SeqNo: **2233816**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	105	63.9	124			
Surr: DNOP	4.6		5.000		92.2	70	130			

Sample ID: **MB-49218**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **49218**	RunNo: **65093**							
Prep Date: **12/9/2019**	Analysis Date: **12/11/2019**	SeqNo: **2233817**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		99.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912273**
12-Dec-19

Client: Vertex Resource Group Ltd.
Project: Ironhouse 24 1H Flare Fire

Sample ID: **mb-49206**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **49206**	RunNo: **65038**							
Prep Date: **12/6/2019**	Analysis Date: **12/9/2019**	SeqNo: **2231210**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.8	66.6	105			

Sample ID: **lcs-49206**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **49206**	RunNo: **65038**							
Prep Date: **12/6/2019**	Analysis Date: **12/9/2019**	SeqNo: **2231219**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.2	80	120			
Surr: BFB	930		1000		92.9	66.6	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912273**

12-Dec-19

Client: Vertex Resource Group Ltd.

Project: Ironhouse 24 1H Flare Fire

Sample ID: **mb-49206**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **49206**	RunNo: **65038**
Prep Date: **12/6/2019**	Analysis Date: **12/9/2019**	SeqNo: **2231250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.5	80	120			

Sample ID: **LCS-49206**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **49206**	RunNo: **65038**
Prep Date: **12/6/2019**	Analysis Date: **12/9/2019**	SeqNo: **2231251** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.1	80	120			
Toluene	0.90	0.050	1.000	0	90.1	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.9	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: VERTEX CARLSBAD Work Order Number: 1912273 RcptNo: 1

Received By: Yazmine Garduno 12/6/2019 9:00:00 AM

Completed By: Erin Melendrez 12/6/2019 9:49:02 AM

Reviewed By: DAD 12/6/19

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: YG 12/6/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good				
2	3.0	Good				

Chain-of-Custody Record

Client: VERTEX RESOURCE SERVICES

Mailing Address: ON FILE

Phone #: ON FILE

email or Fax#: ON FILE

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day Rush
☐ Standard ☑ Rush

Project Name: IRONHOUSE 24 1H - Flare Fire

Project #: 19E-00575-033

Project Manager: NATALIE GORDON

Sampler: SYDNEY HARNESTER

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 4.4 -0.1 = 4.3 (°C)

3.1 -0.1 = 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1912273
12/5	11:31	S	BG19-01 0'	Glass Jar	ICE	-001
"	12:11	"	BS19-01 0'	"	"	-002
"	11:51	"	BS19-02 0'	"	"	-003
"	11:41	"	BS19-03 0'	"	"	-004

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X					X			
X	X					X			
X	X					X			
X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
12/5	14:15				12/5	1530
12/5	1900			courier	12/6/19	0400

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Incident ID	nOY1720827033
District RP	1RP-4768
Facility ID	
Application ID	pOY1720827296

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nOY1720827033
District RP	1RP-4768
Facility ID	
Application ID	pOY1720827296

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

Printed Name: Wes Mathews . Title: EnvironmentalRepresentative

Signature: Wesley Mathews Date: 1/27/2020

email: Wesley.mathews@dvn.com . Telephone: 575-746-5549 .

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nOY1720827033
District RP	1RP-4768
Facility ID	
Application ID	pOY1720827296

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)

[X] 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: Wes Mathews Title: Environmental Representative

Signature: Wesley Mathews Date: 1/27/2020

email: wesley.mathews@dvn.com . Telephone: 575-746-5549 .

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: Jocelyn Harimon Date: 07/05/2022

Printed Name: _____ Title: Environmental Specialist

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

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 8110
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	Depth to Groundwater is not adequately confirmed however the data does allow the OCD to approve this incident for closure. Please note that, when the well or facility is plugged or abandoned, the final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.	7/5/2022