



RUBY FEDERAL 28 WELL CHEMICAL TANK
nOY1724126728

PREPARED BY SAPEC-ECO, LLC.
PREPARED FOR MAVERICK PERMIAN, LLC.

Proposed Sampling and Remediation Work Plan

April 4, 2025



Attn: NMOCD District 1
 1625 N French Dr.
 Hobbs, NM 88240

Bureau of Land Management
 620 E Green St
 Carlsbad, NM 88220

Re: Proposed Sampling and Remediation Work Plan
 NMOCD Incident Number: **nOY1724126728**
 Ruby Federal 28 Well Chemical Tank API No. 30-025-41018
 Unit F, Section 17, Township 17S, Range 32E 1650 FNL 1500 FWL Lea County, NM
 GPS Coordinates: Latitude 32.8373375 Longitude -103.7923813 NAD83

Sapec-Eco (Sapec) has been contracted by Maverick Permian, LLC. (Maverick) to review and research this historic incident then prepare this proposed sampling and remediation work plan for a crude oil release that occurred at the Ruby Federal 28 Well Chemical Tank (Site). This incident was assigned Incident ID nOY1724126728 by the New Mexico Oil Conservation Division (NMOCD).

Release Information – nOY1724126728

The initial Form C-141 was submitted on August 28, 2017 (Appendix A) and stated that “When MSO arrived on location and found the chemical tank overflowing. Upon further examination, the MSO found the check valve malfunctioned allowing fluid from the well to enter the tank causing the overflow. A total of 16 BBL of fluid were released with 5 recovered. Spill site will be remediated per BLM guidelines. Area 1 – 246 ft x 48 ft x 1 in.” This initial Form C-141 was approved by the NMOCD on August 29, 2017.

Site Characterization

This Site is in Lea County, NM, approximately two (2) miles southwest of Maljamar, NM. The wellhead and release area are in Unit F, Section 17, Township 17S, Range 32E, at 32.8373375 degrees latitude and -103.7923813 degrees longitude. A Location Map is included for reference in Figure 5.

The New Mexico Bureau of Geology and Mineral Resources shows the geology at this Site includes Eolian and piedmont deposits. Interlayered eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad. Typically capped by thin eolian deposits. A Geologic Unit Map can be found in Appendix C.

The soil type present at the Site is Kermit soils and Dune land, dry, 0 to 12 percent slopes. The drainage class for this soil type is excessively drained. Soil type information is according to the United States Department of Agriculture Natural Resources Conservation Service soil survey. The Soil Survey and a Soil Map can be referenced in Appendix C. Reference Figure 4 for a Topographic Map.

The Site resides in a low karst zone and is approximately 10.22 miles away from the nearest medium karst zone. Figure 3 refers to the Karst Map.

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is greater than 104 feet below grade surface (bgs). This information is recorded by RA-13234-POD1 which is situated approximately 1.39 miles away from the Site. This information is from 2022. The United States Geological Survey (USGS) offers the site USGS 325028103441301 17S.32E.11.34332 which shows depth to the nearest groundwater is 48 feet bgs. The latest gauge of this site was conducted in 1996, and it is located approximately 3.06 miles from the Site.

The nearest surface water feature is Conoco Pond, and it is located approximately 3.1 miles to the southeast. The U.S. Fish and Wildlife Service National Wetlands Inventory shows the nearest wetland to be a Freshwater Pond approximately 0.57 miles west. According to Fema’s National Flood Hazard Layer search, the Site is situated in Zone D – Area of Undetermined Flood Hazard and is 1.74 miles away from the nearest flood hazard zone. See Appendix B for referenced Water Surveys and Water-Related Maps.

Readily available data were reviewed to determine if the Site lies within biologically sensitive areas. The U.S. Fish and Wildlife Services (USFWS) Information for Planning and Consultation (IPaC) and the New Mexico Department of Game and Fish (NMDGF) Environmental Review Tool (ERT) were queried to determine if sensitive wildlife or plant areas are present at the Site. The Site is not identified to be within biologically sensitive areas where remediation/reclamation would impact sensitive plant habitats. However, the Site does lie within the Isolated Population Area of the Lesser Prairie Chicken Habitat and the Dunes Sage Brush Lizard Habitat. Any work taking place at this location between March 1 and June 15 will strictly adhere to the timing restrictions outlined in the Special Status Species Resource Management Plan Amendment. A Special Status Plant/Wildlife Map is included in Figure 2.

The remediation area at the Site is in previously disturbed and previously undisturbed areas developed for oil and gas extraction; therefore, a cultural resource survey will be required at the Site for planned remediation/reclamation activities. The requirements of the Cultural Properties Protection (CCP) Rule will be followed.

Assessment and Delineation Activities

“On August 8th, 2018, COPC went to location and did samples in 5 different points to a depth of 8’ (see attached map). All points had samples taken at surface, 1’, 4’, and 8’ and had the samples from Surface, 1’, and 4’ tested for chlorides, BTEX, and TPH, the 8’ samples were tested for chlorides only. Sample points 1, 3, 4, and 5 all showed chlorides of >250 at 4’ with sample point 2 showing <250 at 8’. All samples showed clean of BTEX and TPH at the 4’ depth.”

ConocoPhillips completed a Corrective Action Plan that was submitted to the NMOCD on September 21, 2018. The plan was approved by the NMOCD on September 28, 2018. This plan can be found in the Incident Files link on the OCD Permitting page for this incident. It is also included for reference as Appendix E.

Proposed Sampling & Remediation Activities

Due to the previously approved Corrective Action Plan being 6+ years old, the site characterization information has been updated to reflect current standards. Because no documented activity has taken place at this Site, Maverick would like to propose the following:

- The area of concern measures approximately 3684 square feet and includes the pad surface and pasture to the northwest.
- Collect discrete samples from within and around the edges of the release area to evaluate the presence of contaminants. Fifty-five (55) samples will be collected from 11 different sample points within the release area from depths of surface, 1’, 2’, 3’, and 4’ bgs. Thirty-five (35) samples will be collected from 7 different sample points around the edges of the release area from depths of surface, 1’, 2’, 3’, and 4’ bgs.
- All samples will be put on ice, prepared for delivery, then delivered to Envirotech Analytical Laboratories where they will be analyzed for all the constituents listed in Table 1 19.15.29.12 NMAC.
- A 48-hour sampling notification will be issued to the NMOCD for these sampling events. A variance request is included below for permission to use the delineation samples as confirmation samples depending on the sample results of the soil. A Proposed Sample Map can be found in Figure 1.
- If any samples do not verify delineation, then the “step-out” method will be used for horizontal delineation samples until sample results can confirm delineation. Also, for vertical delineation samples, any samples not verifying delineation will be advanced deeper until sample results can confirm delineation.
- Sample results from that are over the regulatory limits of the less than 50-foot depth to groundwater section of Table 1 will be measured for total area and affected volume then removed via mechanical excavation means. The contaminated soil will be hauled to an NMOCD-approved disposal facility and clean, like material will be brought to the Site for backfilling the excavated area. Ensuring the top two (2) feet of soil in the pasture, at a minimum, will be clean topsoil that will be prepared as a seed bed and reseeded with the approved seed mixture for the soil type and area.
- Once all sample results confirm delineation is complete, and contamination isn’t present or has been removed, a remediation closure report will be drafted and submitted to the NMOCD Pay Portal for review/approval.

Variance Request

Maverick would like to respectfully request to use the delineation samples as confirmation samples in the event the laboratory samples results confirm that no contamination is present at any or all of the sample points. Maverick will diligently remediate all contaminants found that have reported results being over the regulatory limits of the less than 50-



foot depth to groundwater section of Table 1 19.15.29.12 NMAC. Chlorides should be no more than 600 mg/kg. TPH (GRO+DRO+ORO) should be no more than 100 mg/kg. BTEX should be no more than 50 mg/kg. Benzene should be no more than 10 mg/kg.

Once official verification is received that contaminants are not present, or have been successfully removed from all areas within and around the Site, a remediation closure report will be drafted and submitted for approval. During this time, reclamation and revegetation activities of the pasture will commence. After all activities have been performed and documented, a final reclamation and revegetation report will be drafted and submitted for approval.

Request for Proposed Sampling & Remediation Work Plan Approval

Maverick requests that this proposed sampling & remediation work plan for incident ID nOY1724126728 be approved. All rules and regulations set forth in 19.15.29.12 NMAC have been complied with.

For questions or additional information, please reach out to:

Maverick Permian – Bryce Wagoner – Bryce.Wagoner@mavresources.com – (928) 241-1862

Sapec-Eco, LLC – Tom Bynum – tombynum@sapec-eco.com – (580) 748-1613

Attachments

Figures:

- 1- Proposed Sample Map
- 2- Special Status Plant/Wildlife Map
- 3- Karst Map
- 4- Topographic Map
- 5- Location Map

Appendices:

- Appendix A – Initial Form C-141
- Appendix B – Water Surveys & Water-Related Maps
- Appendix C – Soil Surveys, Soil Map, & Geologic Unit Map
- Appendix D – Photographic Documentation
- Appendix E – NMOCD-Approved Corrective Action Plan (2018)



Figures:

Proposed Sample Map

Special Status Plant/Wildlife Map

Karst Map

Topographic Map

Location Map

Ruby Federal 28 Well Chemical Tank

Maverick Permian
API #30-025-41018
Lea County, NM
nOY1724126728
Proposed Sample Map

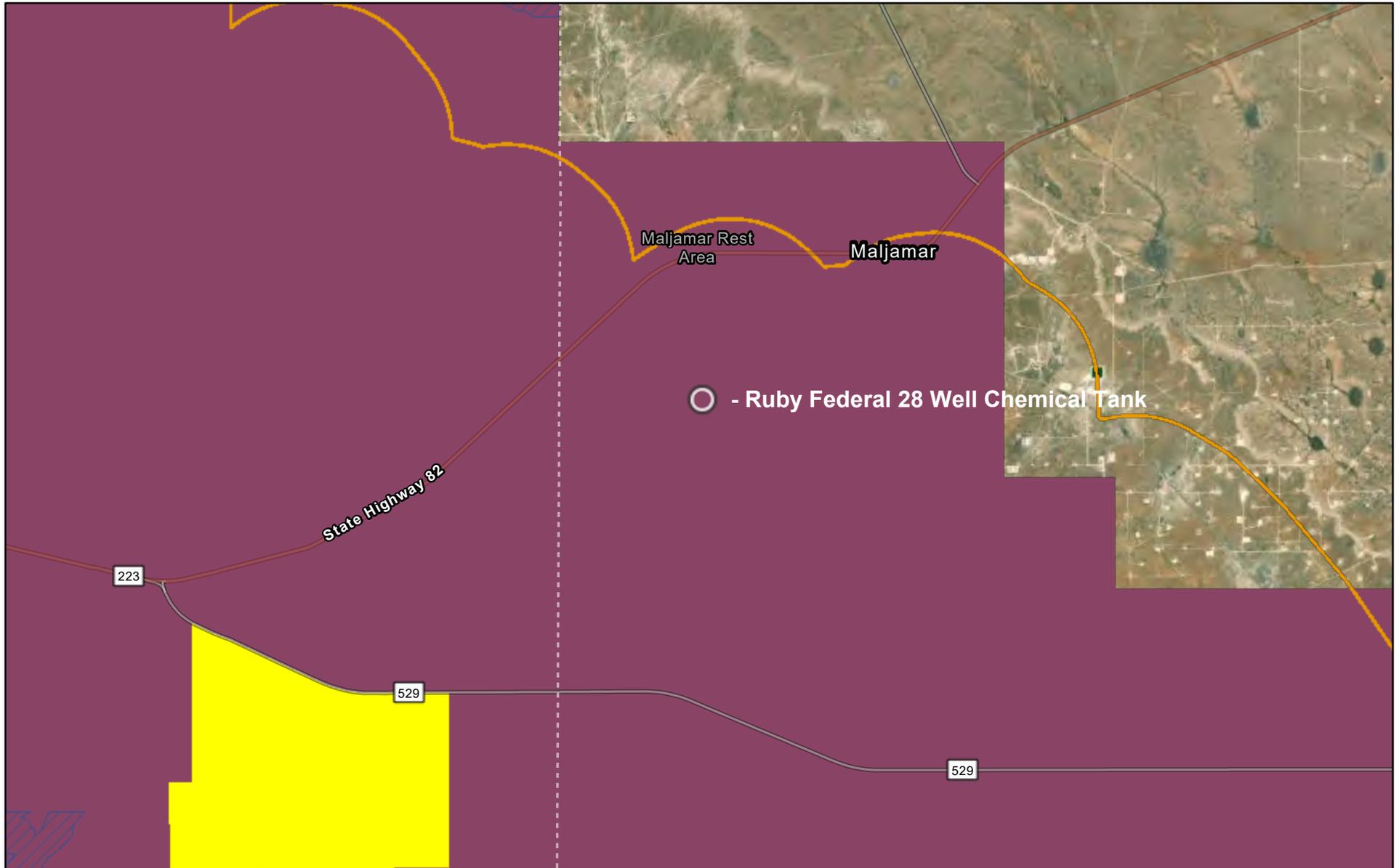
Legend

- Proposed horizontal samples
- Proposed vertical samples
- Release area - 3684 sqft



Google Earth

Special Status Plant/Wildlife Map



4/2/2025

Potential Habitat (Planning Area Only)

Tharp's blue-star

Dunes Sage Brush Lizard Habitat

Lesser Prairie Chicken Habitat

Habitat Evaluation Area

Isolated Population Area

World Imagery

Low Resolution 15m Imagery

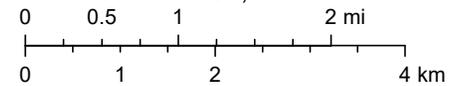
High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

19m Resolution Metadata

1:94,144



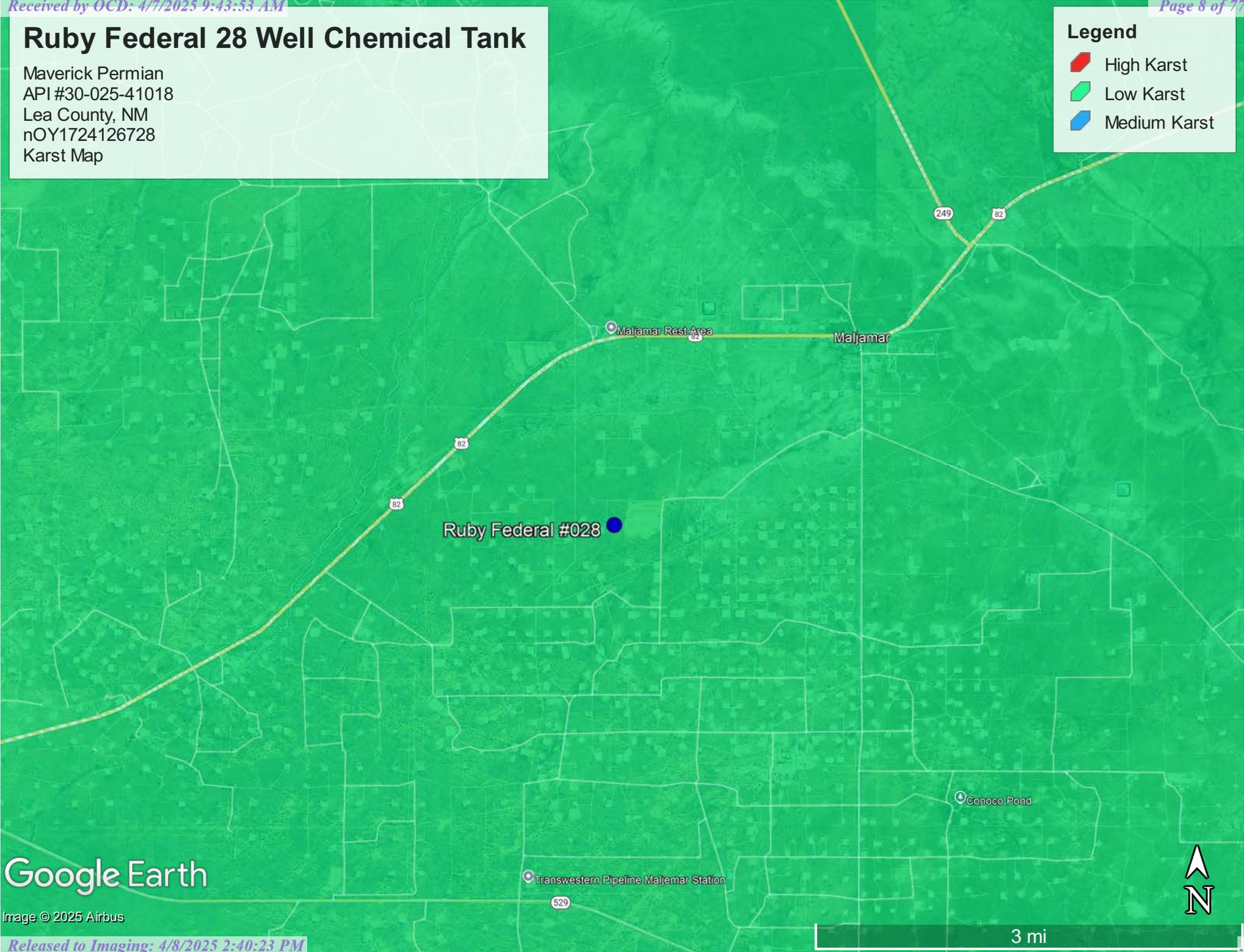
Earthstar Geographics, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community,

Ruby Federal 28 Well Chemical Tank

Maverick Permian
API #30-025-41018
Lea County, NM
nOY1724126728
Karst Map

Legend

-  High Karst
-  Low Karst
-  Medium Karst



Google Earth

Image © 2025 Airbus

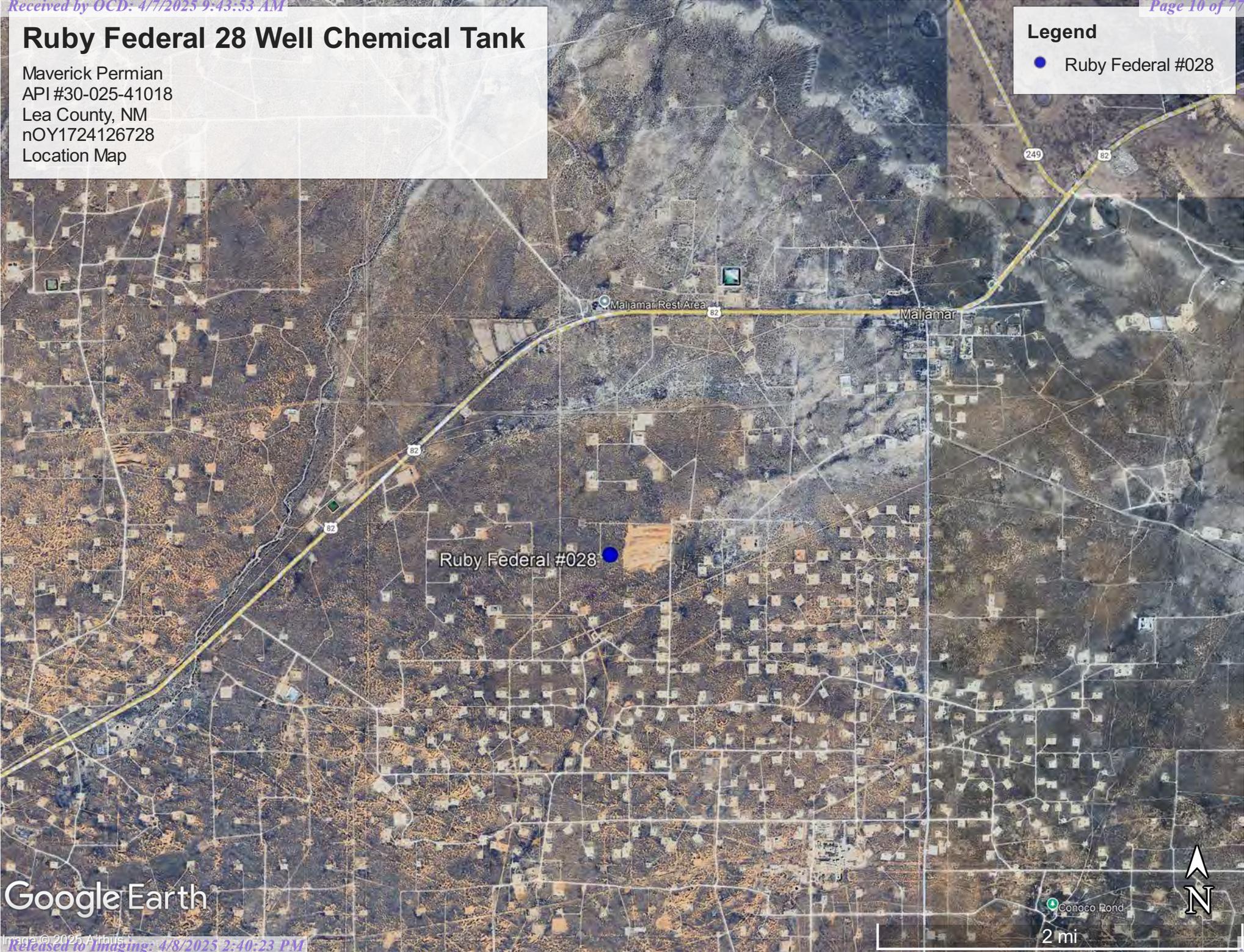


Ruby Federal 28 Well Chemical Tank

Maverick Permian
API #30-025-41018
Lea County, NM
nOY1724126728
Location Map

Legend

● Ruby Federal #028



Google Earth

Conoco Road

2 mi





Appendix A

Initial Form C-141

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: ConocoPhillips | Contact: Cullen Rosine |
| Address: 29 Vacuum Complex Lane | Telephone No. 575-391-3133 |
| Facility Name: Ruby Federal 28 | Facility Type: Producing Well |
| Surface Owner: Federal | Mineral Owner: N/A |
| API No. 30-025-41018 | |

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| F | 17 | 17S | 32E | | | | | Lea |

Latitude 32.8373375 Longitude -103.7923813

NATURE OF RELEASE

| | | |
|--|---|---|
| Type of Release: Oil and Water | Volume of Release: 16 BBL | Volume Recovered: 5 BBL |
| Source of Release: Chemical tank | Date and Hour of Occurrence Aug 25, 2017 0400 | Date and Hour of Discovery Aug. 25, 2017 0800 |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom? Shelly Tucker | |
| By Whom? Cullen Rosine | Date and Hour: 8-28-2017 1100 hours via phone | |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse. | |

RECEIVED
By Olivia Yu at 7:19 am, Aug 29, 2017

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

Describe Cause of Problem and Remedial Action Taken. When MSO arrived on location and found the chemical tank overflowing. Upon further examination, the MSO found the check valve malfunctioned allowing fluid from the well to enter the tank causing the overflow. A total of 16 BBL of fluid were released with 5 recovered. Spill site will be remediated per BLM guidelines.

Describe Area Affected and Cleanup Action Taken. *
Area 1 – 246 ft x 48 ft x 1 in

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: <i>Cullen Rosine</i> | OIL CONSERVATION DIVISION | |
| Printed Name: Cullen Rosine | Approved by Environmental Specialist:  | |
| Title: HSE Specialist | Approval Date: 8/29/2017 | Expiration Date: |
| E-mail Address: Cullen.J.Rosine@conocophillips.com | Conditions of Approval: see attached directive | Attached <input checked="" type="checkbox"/> |
| Date: 8-28-2017 | Phone: 575-391-3133 | |

* Attach Additional Sheets If Necessary

1RP-4798

nOY1724126728

pOY1724127073

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 8/28/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP-4798 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 1 office in Hobbs on or before 9/29/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us



Appendix B

Water Surveys

Water-Related Maps



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 smallest to largest)

(meters)

(In feet)

| POD Number | Code | Sub basin | County | Q64 | Q16 | Q4 | Sec | Tws | Range | X | Y | Map | Distance | Well Depth | Depth Water | Water Column |
|-------------------------------|------|-----------|--------|-----|-----|----|-----|-----|-------|----------|------------|-----|----------|------------|-------------|--------------|
| RA 13234 POD1 | | RA | LE | NW | SE | NW | 19 | 17S | 32E | 611435.4 | 3632294.4 | ● | 2256 | 104 | | |
| RA 12042 POD1 | | RA | LE | NE | NE | NW | 28 | 17S | 32E | 614891.0 | 3631181.1 | ● | 3299 | 400 | | |
| RA 12521 POD1 | | RA | LE | SW | SW | SE | 21 | 17S | 32E | 615126.9 | 3631271.0 | ● | 3367 | 105 | 92 | 13 |
| RA 12522 POD1 | | RA | LE | SW | SW | SE | 21 | 17S | 32E | 614940.6 | 3631122.2 | ● | 3375 | 100 | | |
| RA 12522 POD2 | | RA | LE | NE | NE | NW | 28 | 17S | 32E | 614949.2 | 3631098.6 | ● | 3400 | 100 | | |
| RA 10175 | | RA | LE | | NE | NW | 28 | 17S | 32E | 614814.0 | 3631005.0* | ● | 3404 | 158 | | |
| RA 12522 POD3 | | RA | LE | SE | SE | SW | 28 | 17S | 32E | 614980.5 | 3631093.7 | ● | 3422 | 100 | | |
| RA 12020 POD1 | | RA | LE | NE | NE | NW | 28 | 17S | 32E | 614827.6 | 3630954.6 | ● | 3454 | 120 | 81 | 39 |

Average Depth to Water: **86 feet**

Minimum Depth: **81 feet**

Maximum Depth: **92 feet**

Record Count: 8

Basin/County Search:

County: LE

UTM Filters (in meters):

Easting: 613021.60

Northing: 3633899.72

Radius: 03500

* UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

OSE POD Location Map



4/2/2025, 1:25:07 PM

GIS WATERS PODs

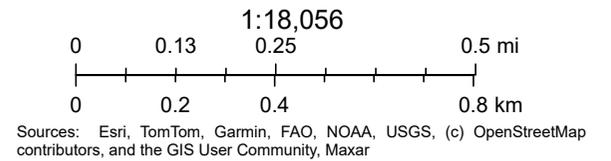
● Active

● Pending

□ OSE District Boundary

New Mexico State Trust Lands

■ Both Estates





USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Click to hide News Bulletins

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

Groundwater levels for the Nation

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

Search Results -- 1 sites found

site_no list =
• 325028103441301

Minimum number of levels = 1

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

USGS 325028103441301 17S.32E.11.34332

Available data for this site

Lea County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°50'32", Longitude 103°44'24" NAD27

Land-surface elevation 4,095.50 feet above NGVD29

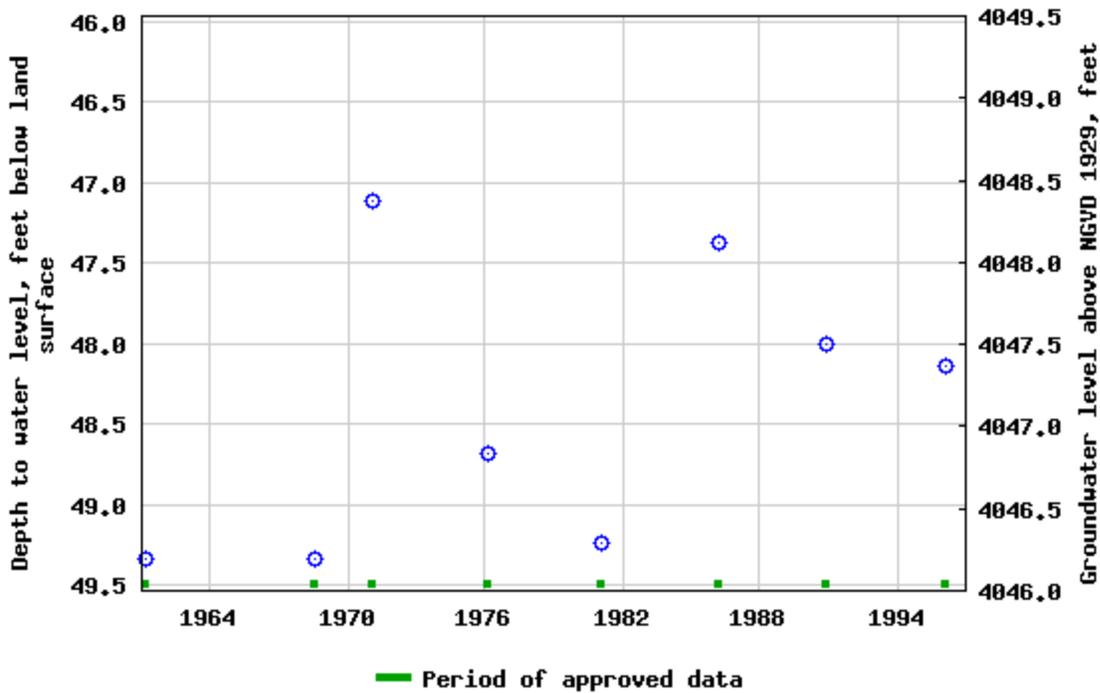
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

USGS 325028103441301 17S,32E,11,34332



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

[Download a presentation-quality graph](#)

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



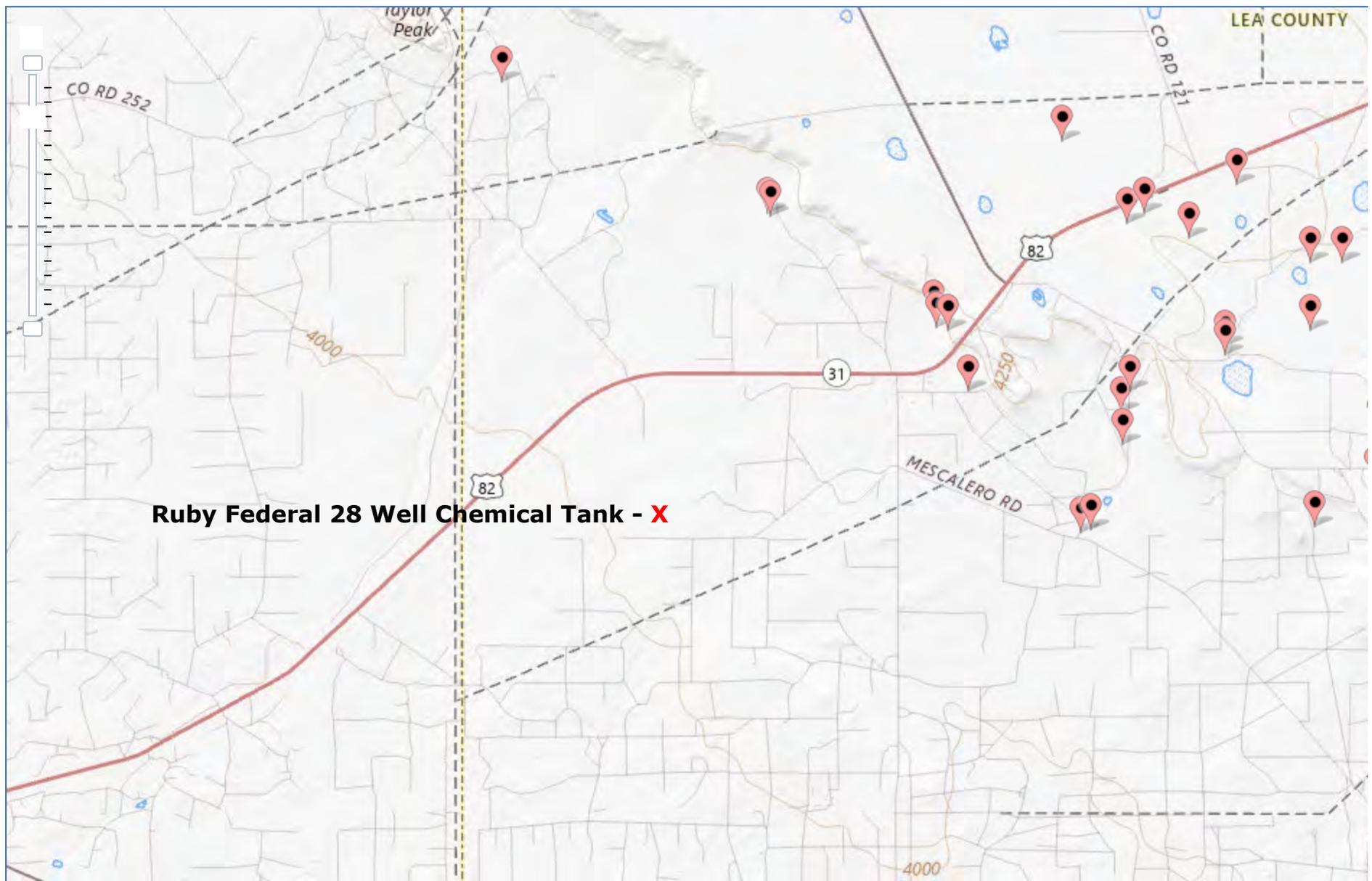
Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2025-04-02 14:28:11 EDT

0.78 0.58 nadww02



National Water Information System: Mapper



Ruby Federal 28 Well Chemical Tank - X

Ruby Federal 28 Well Chemical Tank

Maverick Permian
API #30-025-41018
Lea County, NM
nOY1724126728
Surface Water Map

Legend

-  3.1 Miles
-  Conoco Pond

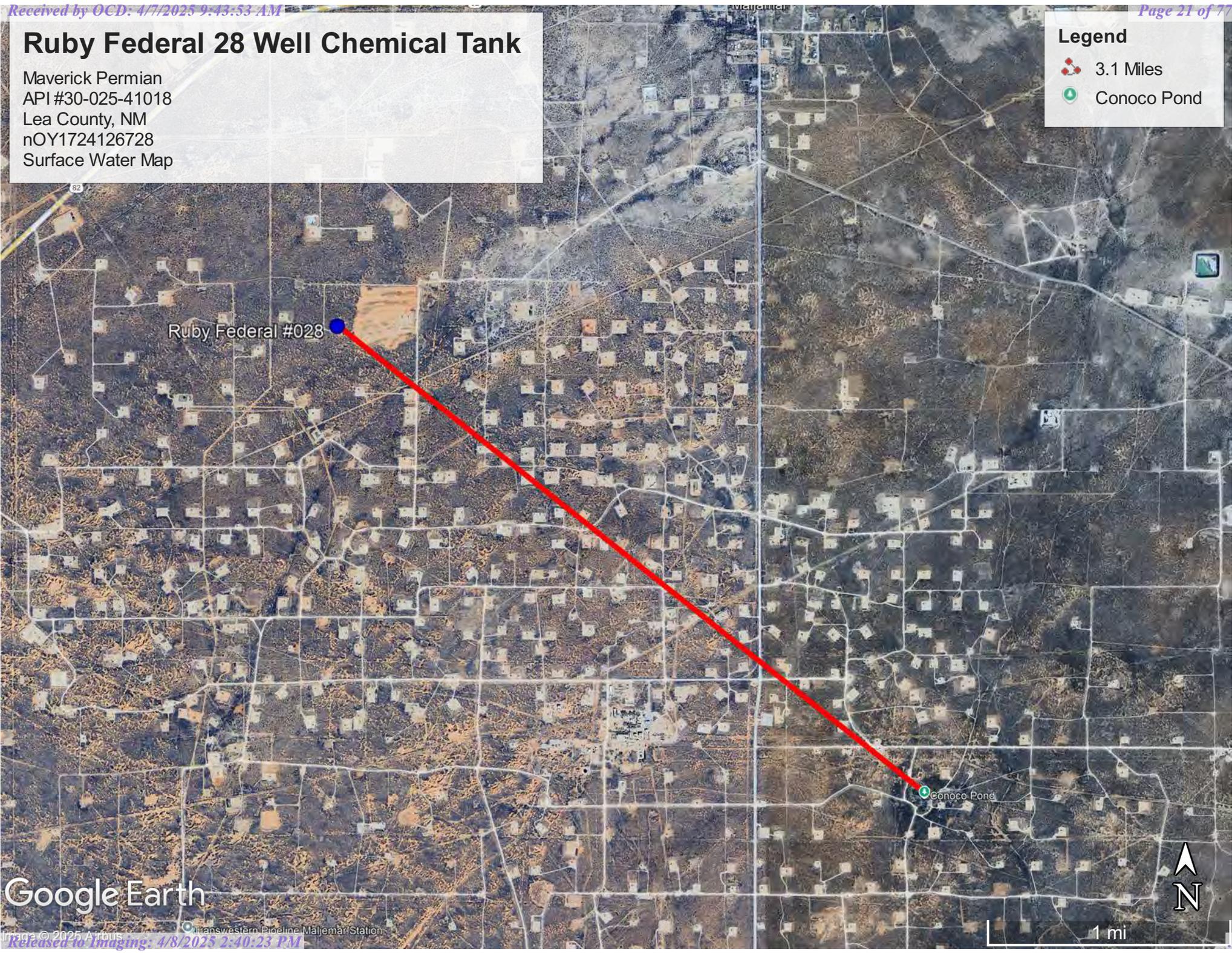
Ruby Federal #028

Conoco Pond

Google Earth

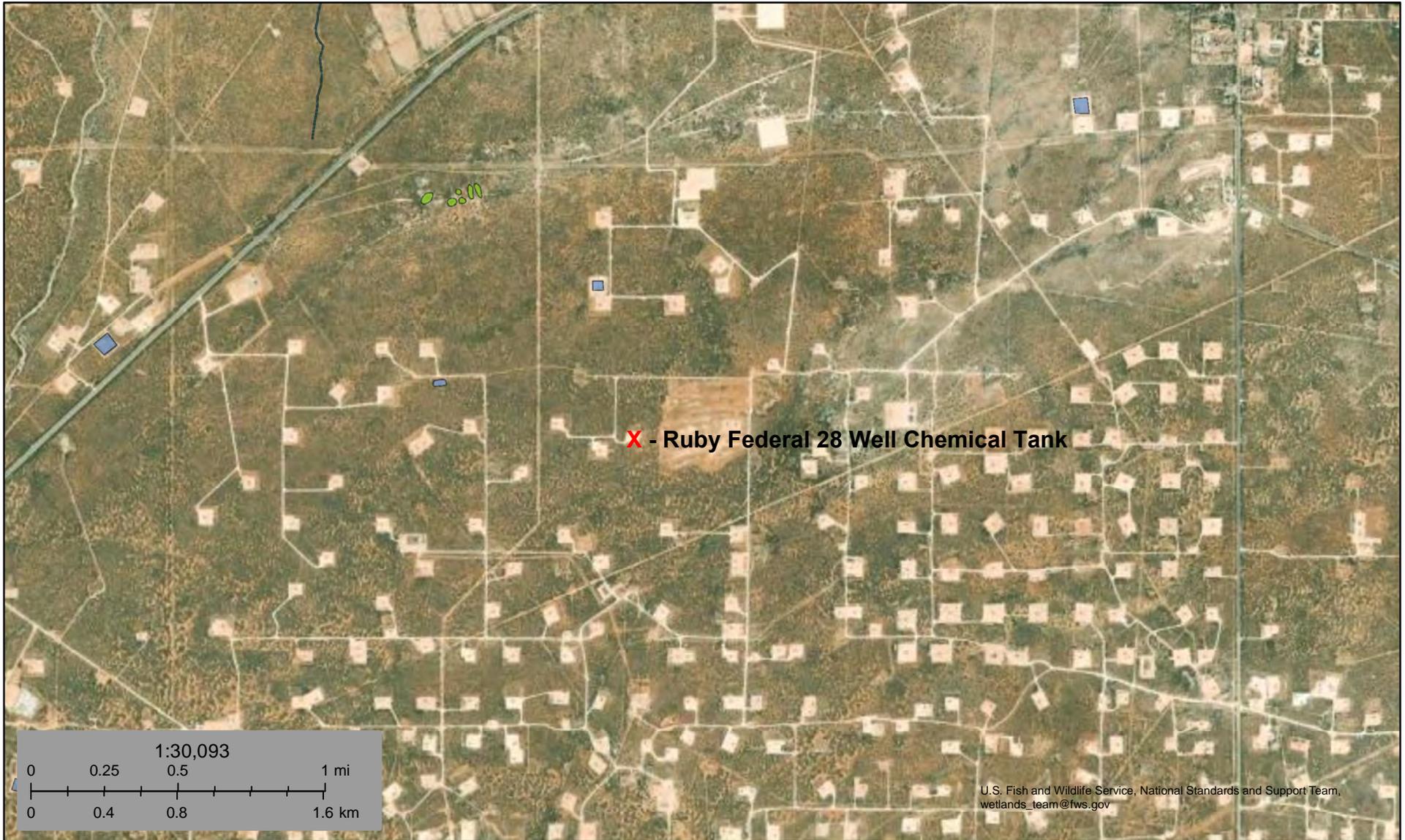


1 mi





Wetlands Map



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov

April 2, 2025

Wetlands

- | | | |
|--------------------------------|-----------------------------------|----------|
| Estuarine and Marine Deepwater | Freshwater Emergent Wetland | Lake |
| Estuarine and Marine Wetland | Freshwater Forested/Shrub Wetland | Other |
| | Freshwater Pond | 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 Flood Hazard Layer FIRMette



103°47'51"W 32°50'29"N



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**
 - Cross Sections with 1% Annual Chance 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
- The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



1:6,000

103°47'14"W 32°49'59"N

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 4/2/2025 at 6:31 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.



Appendix C

Soil Surveys

Soil Map

Geologic Unit Map

Map Unit Description: Kermit soils and Dune land, 0 to 12 percent slopes---Lea County, New Mexico

Lea County, New Mexico

KM—Kermit soils and Dune land, 0 to 12 percent slopes

Map Unit Setting

National map unit symbol: dmpx
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 46 percent
Dune land: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex
Parent material: Calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sand
C - 8 to 60 inches: fine sand

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Map Unit Description: Kermit soils and Dune land, 0 to 12 percent slopes---Lea County, New Mexico

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Ecological site: R070BC022NM - Sandhills

Hydric soil rating: No

Description of Dune Land

Setting

Landform: Dunes

Landform position (two-dimensional): Shoulder, backslope, footslope

Landform position (three-dimensional): Side slope

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex

Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 6 inches: fine sand

C - 6 to 60 inches: fine sand

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Palomas

Percent of map unit: 3 percent

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Pyote

Percent of map unit: 3 percent

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Wink

Percent of map unit: 2 percent

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Maljamar

Percent of map unit: 2 percent

Ecological site: R070BD003NM - Loamy Sand

Map Unit Description: Kermit soils and Dune land, 0 to 12 percent slopes---Lea County, New Mexico

Hydric soil rating: No

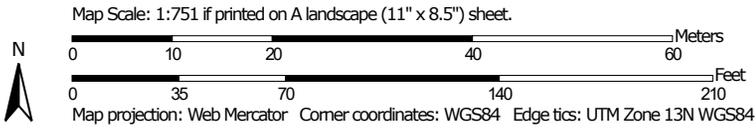
Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 21, Sep 3, 2024

Soil Map—Lea County, New Mexico



Soil Map may not be valid at this scale.



Soil Map—Lea County, New Mexico

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

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

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
 Survey Area Data: Version 21, Sep 3, 2024

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

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

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

Soil Map—Lea County, New Mexico

Map Unit Legend

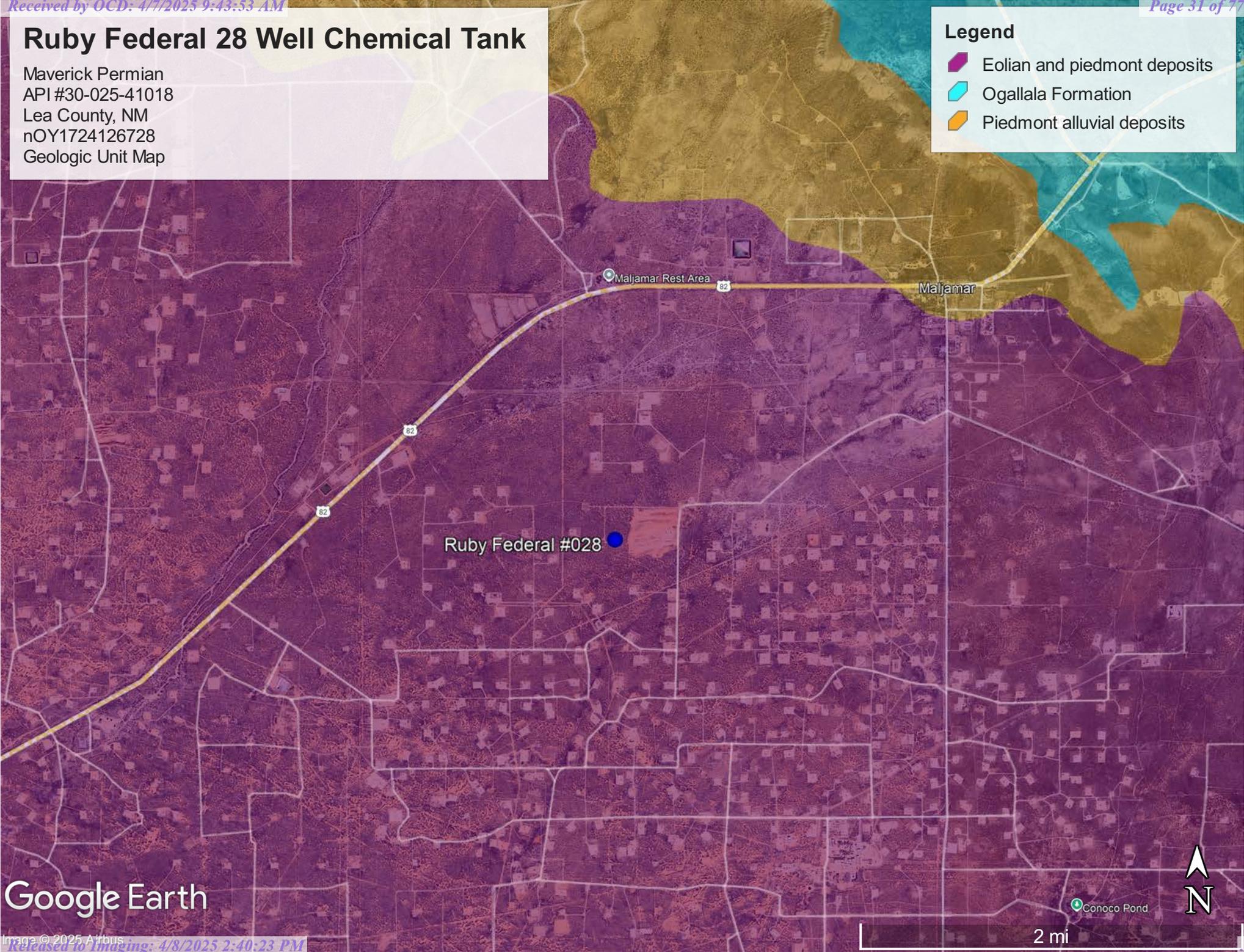
| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|--|--------------|----------------|
| KM | Kermit soils and Dune land, 0 to 12 percent slopes | 2.3 | 100.0% |
| Totals for Area of Interest | | 2.3 | 100.0% |

Ruby Federal 28 Well Chemical Tank

Maverick Permian
API #30-025-41018
Lea County, NM
nOY1724126728
Geologic Unit Map

Legend

-  Eolian and piedmont deposits
-  Ogallala Formation
-  Piedmont alluvial deposits



Google Earth

2 mi





Appendix D

Photographic Documentation

Ruby Federal 28 Well Chemical Tank – nOY1724126728



Ruby Federal 28 Well Chemical Tank – nOY1724126728



Ruby Federal 28 Well Chemical Tank – nOY1724126728





Appendix E

NMOCD-Approved Corrective Action Plan (2018)

ConocoPhillips, Ruby 28, 1RP-4798
UL-F, S-17, T-17S, R-32E, Lea County NM

On August 25th 2017 a chemical tank leak happened on the Ruby 28 location resulting in the release of 16 bbls of fluid with 5 recovered. On August 8th 2018 COPC went to location and did samples in 5 different points to a depth of 8' (see attached map). All points had samples taken at surface, 1', 4' and 8' and had the samples from Surface, 1' and 4' tested for chlorides, BTEX and TPH, the 8' samples were tested for chlorides only. Sample points 1,3, 4 and 5 all showed chlorides of >250 at 4' with sample point 2 showing <250 at 8'. All samples showed clean of BTEX and TPH at the 4' depth. We propose digging the entire area to a depth of 2.5 feet and the area around sample point 2 to a depth of 5' and replacing with clean soil. We will also take confirmation wall samples once the dig is completed. We request immediate backfill since the dig around the wellhead is at the deepest depths and would interfere with any well work if it was needed. We will attach photos and maps of all work along with soil sample results.

APPROVED

By Olivia Yu at 1:41 pm, Sep 28, 2018

Approx. DGW—81'

NMOCD approves of the vertical delineation completed for 1RP-4798. The proposed remediation is also approved. See email correspondence for clarifications.



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-Code | basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X | Y | Distance | Depth Well | Depth Water | Water Column |
|-------------------------------|--------------|-------|--------|------|------|-----|-----|-----|-----|--------|----------|----------|------------|-------------|--------------|
| RA 12042 POD1 | RA | LE | | 2 | 2 | 1 | 28 | 17S | 32E | 614891 | 3631181 | 3289 | 400 | | |
| RA 10175 | RA | LE | | | | 2 | 1 | 28 | 17S | 32E | 614814 | 3631005* | 3394 | 158 | |
| RA 12020 POD1 | RA | LE | | 2 | 2 | 1 | 28 | 17S | 32E | 614828 | 3630954 | 3444 | 120 | 81 | 39 |
| RA 08855 | RA | LE | | 4 | 1 | 1 | 10 | 17S | 32E | 616061 | 3635742* | 3567 | 158 | | |

Average Depth to Water: **81 feet**
 Minimum Depth: **81 feet**
 Maximum Depth: **81 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 613015.15

Northing (Y): 3633883.68

Radius: 3700

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Ruby 28

Write a description for your map.

Legend



Dig Areas

2.5' Dig

5' Dig

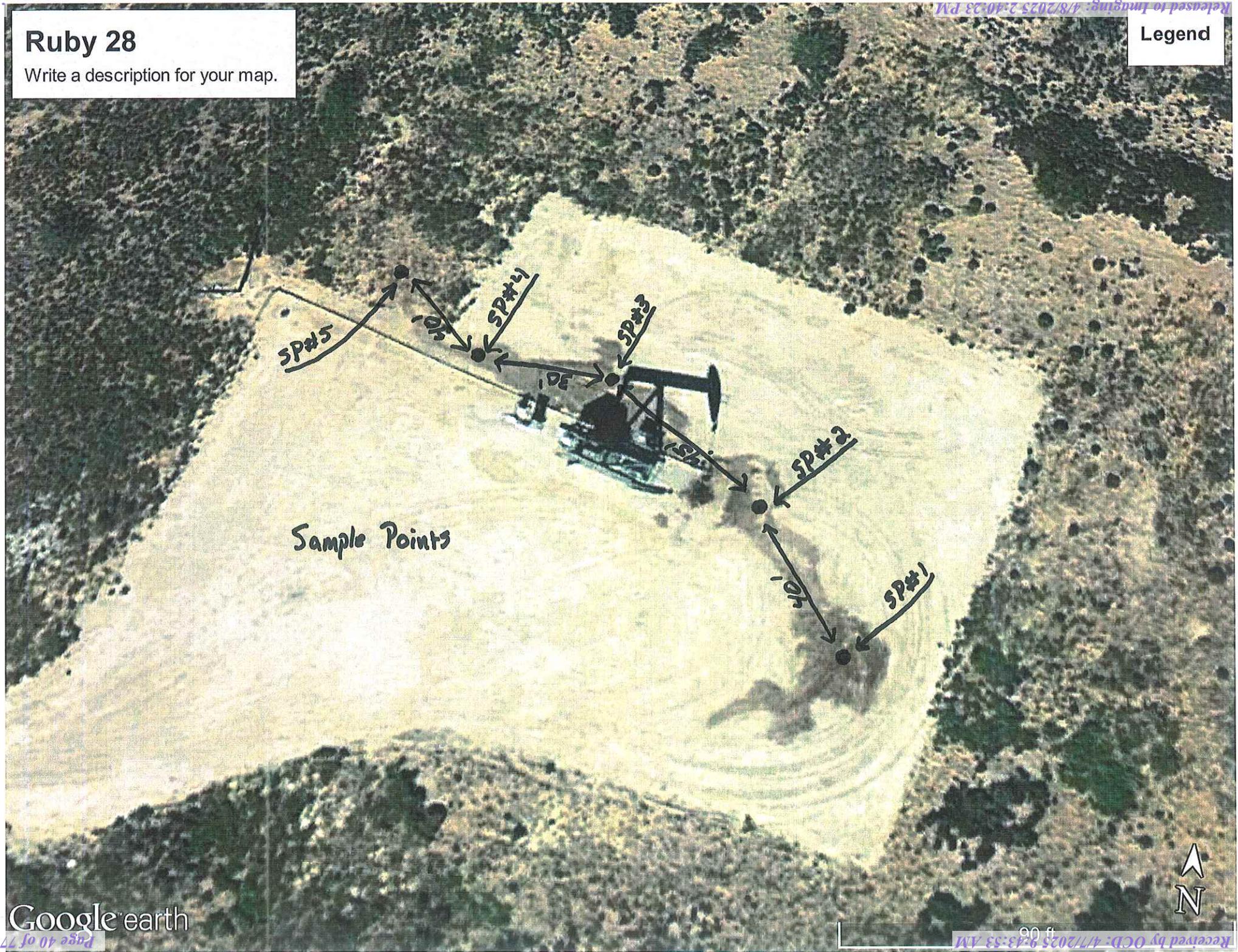
2.5' Dig



Ruby 28

Write a description for your map.

Legend



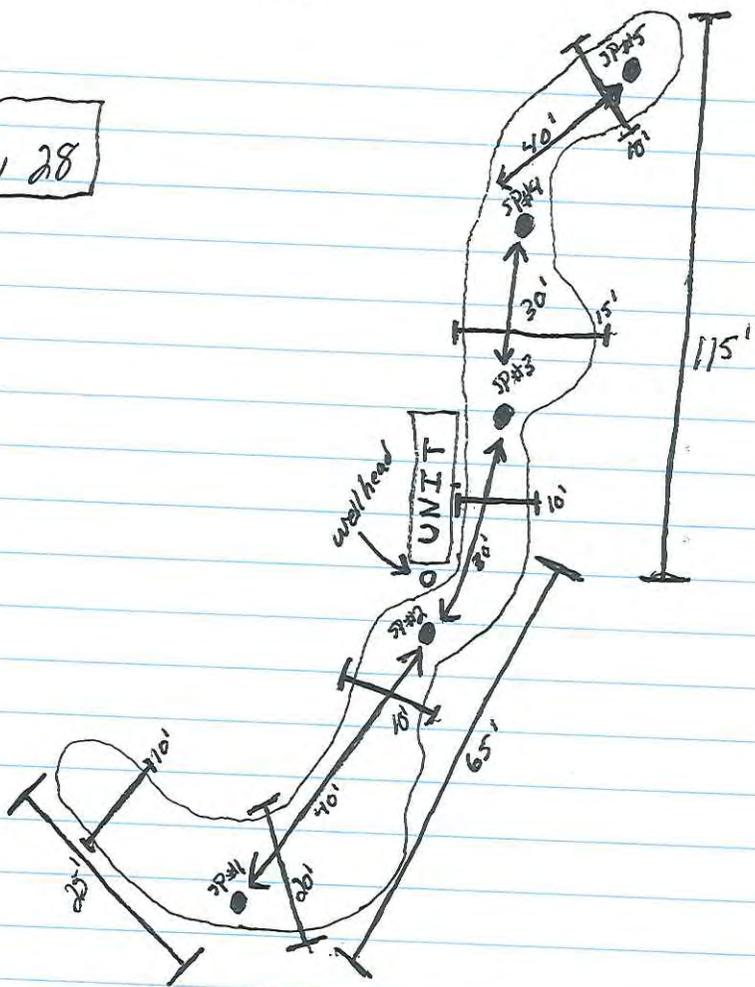
Sample Points



Ruby 28

(S)

(N)



| SP#1 | SP#2 | SP#3 | SP#4 |
|------------------|---------------------|------------------|-------------------|
| surface - 5600 | surface - 597 | surface - 15,000 | surface - 39,800 |
| 1' - 960 | 1' - 1620 | 1' - 1390 | 1' - 2400 |
| 4' - 64 | 4' - 2290 - caliche | 4' - 172 caliche | 4' - 32 - caliche |
| 8' caliche - 176 | 8' - 144 | 8' - 96 | 8' - 32 |
| 12' | 12' | 12' | 12' |

SP#5
 surface - 1,070
 1' - 176
 4' - 176 - caliche
 8' - 288
 12'

(E)

- SP#1 - 32° 50' 14.22" N - 103° 47' 32.00" W
- SP#2 - 32° 50' 14.67" N - 103° 47' 32.29" W
- SP#3 - 32° 50' 14.95" N - 103° 47' 32.76" W
- SP#4 - 32° 50' 15.02" N - 103° 47' 33.26" W
- SP#5 - 32° 50' 15.26" N - 103° 47' 33.52" W



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 15, 2018

JUSTIN WRIGHT

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: RUBY 28

Enclosed are the results of analyses for samples received by the laboratory on 08/09/18 12:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

| | |
|------------------|------------------------------|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3) |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #1 - SURFACE (H802206-01)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 5600 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | <50.0 | 50.0 | 08/09/2018 | ND | 224 | 112 | 200 | 0.551 | | |
| DRO >C10-C28* | 6290 | 50.0 | 08/09/2018 | ND | 226 | 113 | 200 | 0.615 | | |
| EXT DRO >C28-C36 | 1290 | 50.0 | 08/09/2018 | ND | | | | | | |

Surrogate: 1-Chlorooctane 94.4 % 41-142

Surrogate: 1-Chlorooctadecane 418 % 37.6-147

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*=Accredited Analyte

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 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #1 - 1' (H802206-02)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 960 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|-------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/09/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | 12.6 | 10.0 | 08/09/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/09/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 114 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #1 - 4' (H802206-03)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 64.0 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | <10.0 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 114 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #1 - 8' (H802206-04)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

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 Hobbs NM, 88240
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| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #2 - SURFACE (H802206-05)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 592 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | <50.0 | 50.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | | |
| DRO >C10-C28* | 8520 | 50.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | | |
| EXT DRO >C28-C36 | 3130 | 50.0 | 08/10/2018 | ND | | | | | | |

Surrogate: 1-Chlorooctane 112 % 41-142

Surrogate: 1-Chlorooctadecane 666 % 37.6-147

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #2 - 1' (H802206-06)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1620 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|----------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | 35.6 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | 12.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 99.6 % 37.6-147

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Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #2 - 4' (H802206-07)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 2280 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | <10.0 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 108 % 41-142

Surrogate: 1-Chlorooctadecane 98.3 % 37.6-147

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Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #2 - 8' (H802206-08)

| Chloride, SM4500Cl-B | mg/kg | Analyzed By: AC | | | | | | | |
|----------------------|------------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

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Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #3 - SURFACE (H802206-09)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 15000 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | <50.0 | 50.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | | |
| DRO >C10-C28* | 4700 | 50.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | | |
| EXT DRO >C28-C36 | 1540 | 50.0 | 08/10/2018 | ND | | | | | | |

Surrogate: 1-Chlorooctane 115 % 41-142

Surrogate: 1-Chlorooctadecane 412 % 37.6-147

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Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #3 - 1' (H802206-10)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1390 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|-------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | 33.1 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 117 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #3 - 4' (H802206-11)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 272 | 16.0 | 08/14/2018 | ND | 416 | 104 | 400 | 3.92 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | <10.0 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 108 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #3 - 8' (H802206-12)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 96.0 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

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Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #4 - SURFACE (H802206-13)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 30800 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | <50.0 | 50.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | | |
| DRO >C10-C28* | 7940 | 50.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | | |
| EXT DRO >C28-C36 | 1880 | 50.0 | 08/10/2018 | ND | | | | | | |

Surrogate: 1-Chlorooctane 108 % 41-142

Surrogate: 1-Chlorooctadecane 570 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #4 - 1' (H802206-14)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 2400 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|-------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | 13.8 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 99.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #4 - 4' (H802206-15)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | <10.0 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #4 - 8' (H802206-16)

| Chloride, SM4500Cl-B | mg/kg | Analyzed By: AC | | | | | | | |
|----------------------|-------------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

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Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #5 - SURFACE (H802206-17)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 1070 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | S-06 |
|----------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10* | <50.0 | 50.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | | |
| DRO >C10-C28* | 3330 | 50.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | | |
| EXT DRO >C28-C36 | 693 | 50.0 | 08/10/2018 | ND | | | | | | |

Surrogate: 1-Chlorooctane 120 % 41-142

Surrogate: 1-Chlorooctadecane 304 % 37.6-147

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Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #5 - 1' (H802206-18)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | <10.0 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 115 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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Analytical Results For:

Conoco Phillips - Hobbs
 JUSTIN WRIGHT
 P. O. BOX 325
 Hobbs NM, 88240
 Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #5 - 4' (H802206-19)

| BTEX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.89 | 94.3 | 2.00 | 1.65 | |
| Toluene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.83 | 91.7 | 2.00 | 6.92 | |
| Ethylbenzene* | <0.050 | 0.050 | 08/10/2018 | ND | 1.85 | 92.6 | 2.00 | 5.99 | |
| Total Xylenes* | <0.150 | 0.150 | 08/10/2018 | ND | 5.63 | 93.8 | 6.00 | 4.47 | |
| Total BTEX | <0.300 | 0.300 | 08/10/2018 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 69.8-142

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 176 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10* | <10.0 | 10.0 | 08/10/2018 | ND | 224 | 112 | 200 | 0.551 | |
| DRO >C10-C28* | <10.0 | 10.0 | 08/10/2018 | ND | 226 | 113 | 200 | 0.615 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 08/10/2018 | ND | | | | | |

Surrogate: 1-Chlorooctane 108 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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Analytical Results For:

Conoco Phillips - Hobbs
JUSTIN WRIGHT
P. O. BOX 325
Hobbs NM, 88240
Fax To: (575) 297-1477

| | | | |
|-------------------|----------------|---------------------|----------------|
| Received: | 08/09/2018 | Sampling Date: | 08/08/2018 |
| Reported: | 08/15/2018 | Sampling Type: | Soil |
| Project Name: | RUBY 28 | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NM | | |

Sample ID: SP #5 - 8' (H802206-20)

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 288 | 16.0 | 08/14/2018 | ND | 432 | 108 | 400 | 3.77 | |

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------|--------------------------------|--------------|--|-------------------------------------|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|--|--|--|--|--|----------|--|--|--|--|--|--|--|--|--|
| Company Name: <i>ConocoPhillips</i> | | BILL TO | | | | ANALYSIS REQUEST | | | | | | | | | | | | | | | | | | | |
| Project Manager: <i>Justin Wright</i> | | P.O. #: | | | | | | | | | | | | | | | | | | | | | | | |
| Address: | | Company: <i>ConocoPhillips</i> | | | | | | | | | | | | | | | | | | | | | | | |
| City: <i>Hobbs</i> State: <i>NM</i> Zip: <i>88240</i> | | Attn: | | | | | | | | | | | | | | | | | | | | | | | |
| Phone #: <i>575-631-9092</i> Fax #: | | Address: | | | | | | | | | | | | | | | | | | | | | | | |
| Project #: Project Owner: <i>ConocoPhillips</i> | | City: | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: <i>Ruby 28</i> | | State: Zip: | | | | | | | | | | | | | | | | | | | | | | | |
| Project Location: <i>Lea County, NM</i> | | Phone #: | | | | | | | | | | | | | | | | | | | | | | | |
| Sampler Name: <i>Justin Wright</i> | | Fax #: | | | | | | | | | | | | | | | | | | | | | | | |
| FOR LAB USE ONLY | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab I.D. | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | MATRIX | PRESERV. | | | | | | | | | | | SAMPLING | | | | | | | | | |
| | | | | GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: | ACID/BASE: ICE / COOL OTHER: | DATE TIME | | | | | | | | | | | | | | | | | | | |
| <i>H802206</i> | | | | | | | <i>BTEX</i> | <i>TPH</i> | <i>Chlorides</i> | | | | | | | | | | | | | | | | |
| <i>1</i> | <i>SP#1 - Surface</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 10:50</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>2</i> | <i>SP#1 - 1'</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 10:52</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>3</i> | <i>SP#1 - 4'</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 10:56</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>4</i> | <i>SP#1 - 8'</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 11:01</i> | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>5</i> | <i>SP#2 - surface</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 11:08</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>6</i> | <i>SP#2 - 1'</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 11:11</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>7</i> | <i>SP#2 - 4'</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 11:20</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>8</i> | <i>SP#2 - 8'</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 11:31</i> | | | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>9</i> | <i>SP#3 - Surface</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 11:35</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |
| <i>10</i> | <i>SP#3 - 1'</i> | <i>G</i> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <i>8-8-18 11:39</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | |

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

| | | | | |
|-------------------------------------|---|---------------------------------|--|----------------|
| Relinquished By: <i>[Signature]</i> | Date: <i>8-4-18</i> Time: <i>12:15</i> | Received By: <i>[Signature]</i> | Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No | Add'l Phone #: |
| Relinquished By: | Date: | Received By: | Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No | Add'l Fax #: |
| Delivered By: (Circle One) | Sample Condition | CHECKED BY: (Initials) | REMARKS: | |
| Sampler - UPS - Bus - Other: | Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input type="checkbox"/> Yes <input type="checkbox"/> No | <i>TO #75</i> | | |

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Conoco Phillips
Project Manager: Justin Wright
Address: Hobbs NM Zip: 88240
Phone #: 575-631-9092
Project #: 1
Project Name: Ruby 28
Project Location: Lea County, NM
Sampler Name: Justin Wright
BILL TO: P.O. #, Company: ConocoPhillips, Attn, Address, City, State, Zip, Phone #, Fax #
ANALYSIS REQUEST

Table with columns: Lab I.D., Sample I.D., (G)RAB OR (C)OMP., # CONTAINERS, MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER), PRESERV. (ACID/BASE, ICE/COOL, OTHER), SAMPLING (DATE, TIME), and analysis results for BTEX, TPH, Chlorides.

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses.

Relinquished By: [Signature] Date: 8-9-18 Time: 10:15
Received By: Tamara Oldaker
Delivered By: (Circle One) Sampler - UPS - Bus - Other: -7.4i/-7.35c
Sample Condition: Cool [X] Yes [] No [] Intact [] Yes [] No []
CHECKED BY: (Initials) JO-HJS

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

From: [Yu, Olivia, EMNRD](#)
To: ["Wright, Justin K"; Tucker, Shelly](#)
Cc: [Hernandez, Christina, EMNRD](#)
Subject: RE: [EXTERNAL]RE: CAP for Ruby 28 1RP-4798
Date: Friday, September 28, 2018 1:49:00 PM
Attachments: approved_1RP4798_WP.pdf

Mr. Wright:

Thank you for the clarification. While some exceptions would be granted on site-by-site basis, please be advised that all releases must have immediate corrective actions conducted under the revised 19.15.29 NMAC and abide by the site/release characterization details in 19.15.29.11 NMAC.

However, to facilitate resolution of 1RP-4798 and as the proposed remedial work will be more protective of the environment, NMOCD will agree that vertical delineation has been completed and approves of the proposed remediation plan. Please be advised that for closure:

1. All confirmation bottom and sidewall samples (to complete horizontal delineation) must be analyzed for Benzene, BTEX, TPH extended, and chlorides. NMOCD requests that the sidewalls/borders between the proposed 2.5 ft. and 4 ft. excavation areas are to be included in confirmation samples.
2. Closure sample locations must be no greater than 200 square feet apart, documented by GPS coordinates on a scaled map.
3. Provide dated, georeferenced photo documentation.

BLM approval required. BLM may have additional concerns and stipulations.

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Wright, Justin K <Justin.Wright@conocophillips.com>
Sent: Tuesday, September 25, 2018 4:51 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Tucker, Shelly <stucker@blm.gov>
Subject: [EXT] RE: [EXTERNAL]RE: CAP for Ruby 28 1RP-4798

The chemical contained in the tank on location was SICI11104A Scale/corrosion combo. It was connected to the wellhead for treating the well string for corrosion and scale buildup. No there was no initial cleanup done on the location.

From: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Sent: Friday, September 21, 2018 4:14 PM
To: Wright, Justin K <Justin.Wright@conocophillips.com>; Tucker, Shelly <stucker@blm.gov>
Subject: [EXTERNAL]RE: CAP for Ruby 28 1RP-4798

Mr. Wright:

Thank you for following up and addressing 1RP-4798, despite the 1-year period between release date and first sample date. Please inform of the chemical that the tank was supposedly containing. The laboratory data did not contain analyses related to that particular chemical. Why was a chemical tank connected to the well? Also, were immediate corrective actions conducted to clean-up the heavily impacted soil at the time of release?

Per revised 19.15.29 NMAC, if the chemical released is not from the wellstream, then an alternative release characterization and remediation plan is necessary.

Thanks,
Olivia

From: Wright, Justin K <Justin.Wright@conocophillips.com>
Sent: Tuesday, August 28, 2018 12:05 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Tucker, Shelly <stucker@blm.gov>
Subject: CAP for Ruby 28 1RP-4798

Please let me know of any questions or comments you may have. I will send the photos as soon as I have them uploaded. Thanks, Justin

From: Tucker, Shelly
To: [Yu, Olivia, EMNRD](mailto:Yu,Olivia,EMNRD)
Cc: [Wright, Justin K](mailto:Wright,JustinK); [Hernandez, Christina, EMNRD](mailto:Hernandez,Christina,EMNRD)
Subject: [EXT] Re: [EXTERNAL]RE: CAP for Ruby 28 1RP-4798
Date: Monday, October 1, 2018 2:07:02 PM

BLM concurs with NMOCD approval and stipulations.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist
O&G Spill/Release Coordinator

575.234.5905 - Direct
575.361.0084 - Cellular
575.234.6235 - Emergency Spill Number

stucker@blm.gov

Bureau of Land Management

620 E. Greene St
Carlsbad, NM 88220

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. **In such an event a site does not achieve successful restoration, or future issues with contaminants are encountered, the operator will be asked to address these issues until they are fully mitigated and the location is successfully reclaimed.** In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

Confidentiality Warning: This message along with any attachments are intended only for use of the individual or entity to which it is addressed and may contain information that is privileged or confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

NOTE: LPC Timing Stipulations - from March 1st through June 15th. Please plan remedial activities accordingly. Check for African Rue...treat (before it gets out of control).

On Fri, Sep 28, 2018 at 1:51 PM Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us> wrote:

Mr. Wright:

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3. Provide dated, georeferenced photo documentation.

BLM approval required. BLM may have additional concerns and stipulations.

Thanks,

Olivia Yu

Environmental Specialist

NMOCD, District I

Olivia.yu@state.nm.us

575-393-6161 x113

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Sent: Tuesday, August 28, 2018 12:05 PM
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Subject: CAP for Ruby 28 1RP-4798

Please let me know of any questions or comments you may have. I will send the photos as soon as I have them uploaded. Thanks, Justin

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 449076

QUESTIONS

| | |
|--|--|
| Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002 | OGRID: 331199 |
| | Action Number: 449076 |
| | Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

QUESTIONS

| | |
|----------------------|---|
| Prerequisites | |
| Incident ID (n#) | nOY1724126728 |
| Incident Name | NOY1724126728 RUBY FEDERAL 28 WELL CHEMICAL TANK @ 30-025-41018 |
| Incident Type | Oil Release |
| Incident Status | Remediation Plan Approved |
| Incident Well | [30-025-41018] RUBY FEDERAL #028 |

| | |
|---|------------------------------------|
| Location of Release Source | |
| <i>Please answer all the questions in this group.</i> | |
| Site Name | RUBY FEDERAL 28 WELL CHEMICAL TANK |
| Date Release Discovered | 08/25/2017 |
| Surface Owner | Federal |

| | |
|--|-------------|
| Incident Details | |
| <i>Please answer all the questions in this group.</i> | |
| Incident Type | Oil Release |
| Did this release result in a fire or is the result of a fire | No |
| Did this release result in any injuries | No |
| Has this release reached or does it have a reasonable probability of reaching a watercourse | No |
| Has this release endangered or does it have a reasonable probability of endangering public health | No |
| Has this release substantially damaged or will it substantially damage property or the environment | No |
| Is this release of a volume that is or may with reasonable probability be detrimental to fresh water | No |

| | |
|---|--|
| Nature and Volume of Release | |
| <i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i> | |
| Crude Oil Released (bbls) Details | Cause: Equipment Failure Tank (Any) Crude Oil Released: 16 BBL Recovered: 5 BBL Lost: 11 BBL. |
| Produced Water Released (bbls) Details | Cause: Equipment Failure Tank (Any) Produced Water Released: 16 BBL Recovered: 5 BBL Lost: 11 BBL. |
| Is the concentration of chloride in the produced water >10,000 mg/l | Yes |
| Condensate Released (bbls) Details | Not answered. |
| Natural Gas Vented (Mcf) Details | Not answered. |
| Natural Gas Flared (Mcf) Details | Not answered. |
| Other Released Details | Not answered. |
| Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts) | Not answered. |

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QUESTIONS, Page 2

Action 449076

QUESTIONS (continued)

| | |
|--|--|
| Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002 | OGRID: 331199 |
| | Action Number: 449076 |
| | Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

QUESTIONS

| | |
|--|--|
| Nature and Volume of Release (continued) | |
| Is this a gas only submission (i.e. only significant Mcf values reported) | No, according to supplied volumes this does not appear to be a "gas only" report. |
| Was this a major release as defined by Subsection A of 19.15.29.7 NMAC | Yes |
| Reasons why this would be considered a submission for a notification of a major release | From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more. |
| <i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i> | |

Initial Response

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

| | |
|--|----------------------|
| The source of the release has been stopped | True |
| The impacted area has been secured to protect human health and the environment | True |
| Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices | True |
| All free liquids and recoverable materials have been removed and managed appropriately | True |
| If all the actions described above have not been undertaken, explain why | <i>Not answered.</i> |

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

| | |
|--|--|
| I hereby agree and sign off to the above statement | Name: Chuck Terhune Title: Program Manager Email: chuck.terhune@tetrattech.com Date: 07/10/2024 |
|--|--|

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Phone: (505) 476-3441

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 3

Action 449076

QUESTIONS (continued)

| | |
|--|--|
| Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002 | OGRID: 331199 |
| | Action Number: 449076 |
| | Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

QUESTIONS

Site Characterization
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs) | Between 75 and 100 (ft.) |
| What method was used to determine the depth to ground water | Estimate or Other |
| Did this release impact groundwater or surface water | No |
| What is the minimum distance, between the closest lateral extents of the release and the following surface areas: | |
| A continuously flowing watercourse or any other significant watercourse | Greater than 5 (mi.) |
| Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark) | Between 1 and 5 (mi.) |
| An occupied permanent residence, school, hospital, institution, or church | Between 1 and 5 (mi.) |
| A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes | Between 1 and 5 (mi.) |
| Any other fresh water well or spring | Between 1 and 5 (mi.) |
| Incorporated municipal boundaries or a defined municipal fresh water well field | Greater than 5 (mi.) |
| A wetland | Between ½ and 1 (mi.) |
| A subsurface mine | Greater than 5 (mi.) |
| An (non-karst) unstable area | Greater than 5 (mi.) |
| Categorize the risk of this well / site being in a karst geology | Low |
| A 100-year floodplain | Greater than 5 (mi.) |
| Did the release impact areas not on an exploration, development, production, or storage site | No |

Remediation Plan
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

| | |
|--|-----|
| Requesting a remediation plan approval with this submission | Yes |
| <i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i> | |
| Have the lateral and vertical extents of contamination been fully delineated | Yes |
| Was this release entirely contained within a lined containment area | No |

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

| | |
|---|-------|
| Chloride (EPA 300.0 or SM4500 Cl B) | 30800 |
| TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M) | 11650 |
| GRO+DRO (EPA SW-846 Method 8015M) | 8520 |
| BTEX (EPA SW-846 Method 8021B or 8260B) | 0 |
| Benzene (EPA SW-846 Method 8021B or 8260B) | 0 |

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

| | |
|---|------------|
| On what estimated date will the remediation commence | 06/01/2025 |
| On what date will (or did) the final sampling or liner inspection occur | 06/21/2025 |
| On what date will (or was) the remediation complete(d) | 06/30/2025 |
| What is the estimated surface area (in square feet) that will be reclaimed | 0 |
| What is the estimated volume (in cubic yards) that will be reclaimed | 0 |
| What is the estimated surface area (in square feet) that will be remediated | 3648 |
| What is the estimated volume (in cubic yards) that will be remediated | 546 |

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed. The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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Phone: (505) 476-3441

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State of New Mexico
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Oil Conservation Division
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QUESTIONS, Page 4

Action 449076

QUESTIONS (continued)

| | |
|--|--|
| Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002 | OGRID: 331199 |
| | Action Number: 449076 |
| | Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

QUESTIONS

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

| | |
|---|--|
| (Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.) | Yes |
| Which OCD approved facility will be used for off-site disposal | HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510] |
| OR which OCD approved well (API) will be used for off-site disposal | Not answered. |
| OR is the off-site disposal site, to be used, out-of-state | Not answered. |
| OR is the off-site disposal site, to be used, an NMED facility | Not answered. |
| (Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms) | Not answered. |
| (In Situ) Soil Vapor Extraction | Not answered. |
| (In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.) | Not answered. |
| (In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.) | Not answered. |
| (In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.) | Not answered. |
| Ground Water Abatement pursuant to 19.15.30 NMAC | Not answered. |
| OTHER (Non-listed remedial process) | Not answered. |

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

| | |
|--|--|
| I hereby agree and sign off to the above statement | Name: Chuck Terhune Title: Program Manager Email: chuck.terhune@tetrattech.com Date: 04/07/2025 |
|--|--|

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 5

Action 449076

QUESTIONS (continued)

| | |
|--|--|
| Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002 | OGRID: 331199 |
| | Action Number: 449076 |
| | Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

QUESTIONS

| | |
|---|----|
| Deferral Requests Only | |
| <i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i> | |
| Requesting a deferral of the remediation closure due date with the approval of this submission | No |

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QUESTIONS, Page 6

Action 449076

QUESTIONS (continued)

| | |
|--|--|
| Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002 | OGRID: 331199 |
| | Action Number: 449076 |
| | Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

QUESTIONS

| Sampling Event Information | |
|---|-------------------|
| Last sampling notification (C-141N) recorded | 355986 |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | 06/21/2024 |
| What was the (estimated) number of samples that were to be gathered | 4 |
| What was the sampling surface area in square feet | 800 |

| Remediation Closure Request | |
|---|-----------|
| <i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i> | |
| Requesting a remediation closure approval with this submission | No |

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State of New Mexico
Energy, Minerals and Natural Resources
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Santa Fe, NM 87505

CONDITIONS

Action 449076

CONDITIONS

| | |
|--|--|
| Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002 | OGRID: 331199 |
| | Action Number: 449076 |
| | Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|--|----------------|
| amaxwell | Remediation work plan approved. | 4/8/2025 |
| amaxwell | Submit a report via the OCD permitting portal by July 7, 2025. | 4/8/2025 |