Incident Number: nAPP2326841759

Release Assessment and Closure

Muy Wayno 18 CTB

Section 18, Township 25 South, Range 30 East

County: Eddy

Vertex File Number: 23E-05486

Prepared for:
XTO Energy

Prepared by:
Vertex Resource Services Inc.

Date:
December 2023

Release Assessment and Closure
Muy Wayno 18 CTB
Section 18, Township 25 South, Range 30 East
County: Eddy

Prepared for:
XTO Energy
3104 E. Greene Street
Carlsbad, NM 88220

New Mexico Oil Conservation Division – District II
811 S. 1st Street
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ENVIRONMENTAL TECHNICIAN, REPORTING

12/8/2023
Date

Chance Dixon
Chance Dixon, B.Sc.
PROJECT MANAGER, REPORT REVIEW

12/8/2023
Date

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1.0 Introduction

XTO Energy (XTO) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a condensate release that occurred on September 11, 2023, at Muy Wayno 18 CTB (hereafter referred to as the "site"). XTO submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 2 on September 11, 2023. Incident ID number nAPP2326841759 was assigned to this incident.

This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of the release site will be completed following remediation activities, as per NMAC 19.15.29.13.

2.0 Incident Description

The release occurred on September 11, 2023, due to the liquid petroleum (LP) guppy pump failing to drain the built-up condensate during the purging procedure. The fluid released from the LP flare ignited and extinguished upon hitting the pad surface. The incident was reported on September 11, 2023, and involved the release of approximately 0.5 barrels (bbl.) of condensate on the pad site. Approximately 0 bbl. of free fluid was removed during the initial clean-up. Additional details relevant to the release are presented in the C-141 Report. The Daily Field Report with site photographs associated with the characterization of the site is included in Appendix C.

3.0 Site Characteristics

The site is located approximately 10.8 miles southeast of Malaga, New Mexico. The legal location for the site is Section 18, Township 25 South and Range 30 East in Eddy County, New Mexico. The release area is located on Bureau of Land Management (BLM) property. An aerial photograph and site schematic are presented on Figure 1.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2023) indicates the site's surface geology primarily comprises Qep – Eolian and piedmont deposits (Holocene to middle Pleistocene), and is characterized as sand, silt, and gravel. Predominant soil texture on the site is loamy sand.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production and storage. The following sections specifically describe the release area on or in proximity to the constructed pad (Figure 1).

The surrounding landscape is associated with plains and fan piedmonts with elevations ranging between 2000 and 5700 feet. The climate is semiarid with average annual precipitation ranging between 6 and 14 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be grasses. Grasses with shrubs and half-shrubs dominate the historic plant community (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

The surface geology at the site primarily comprises Qep – Eolian and piedmont deposits (Holocene to middle Pleistocene (New Mexico Bureau of Geology and Mineral Resources, 2023) and the soil at the site is characterized as loamy fine sand (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Additional soil characteristics include a drainage class of Well drained with a runoff class of Low. The karst geology potential for the site is Low (United States Department of the Interior, Bureau of Land Management, 2018).

4.0 Closure Criteria Determination

The nearest active well to the site is a New Mexico Office of the State Engineer (NMOSE) monitoring well located approximately 0.49 miles north of the location (United States Geological Survey, 2023). Data from 2023 shows the NMOSE borehole recorded a depth to groundwater of 101 feet below ground surface (bgs). Information pertaining to the depth to groundwater determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream (National Wetlands Inventory) located approximately 0.63 miles south of the site (United States Fish and Wildlife Service, 2023).

At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Closure Criteria Worksheet			
Site Name: Muy Wayno 18 CTB			
Spill Coordinates: 32.126341°, -103.926821°		**X: 01231**	**Y: 54944**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**>100**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3,326	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	12,672	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	48,048	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	No	feet
	ii) Within 1000 feet of any fresh water well or spring	No	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	5,385	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	No	year
11	Soil Type	BA	
12	Ecological Classification	BA	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'

The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 2.

Table 2. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
> 100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – total dissolved solids

TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics

BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

Characterization of the release area was completed on November 16, 2023, which identified the area of the release specified in the initial C-141 Report. Vertex investigated the area based on photo documentation of the release area that was provided by XTO due to the staining no longer being visible. The impacted area was sampled and field screened for vertical and horizontal delineation. Vertex collected a total of 11 samples at 5 sample points (boreholes) and consisted of a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons), and Titration (chlorides). It was determined that no remnant impacts exceeding NMOCD's strictest closure criteria remained in the release area and no remedial activities were required. The DFR associated with the site inspection and photo evidence of the release area are included in Appendix C.

6.0 Closure Request

The release area was fully delineated on November 16, 2023. Delineation samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations "greater than 100 feet to groundwater". Based on these findings, XTO Energy requests that this release be closed.

Should you have any questions or concerns, please do not hesitate to contact Chance Dixon at 575.988.1472 or cdixon@vertex.ca.

7.0 References

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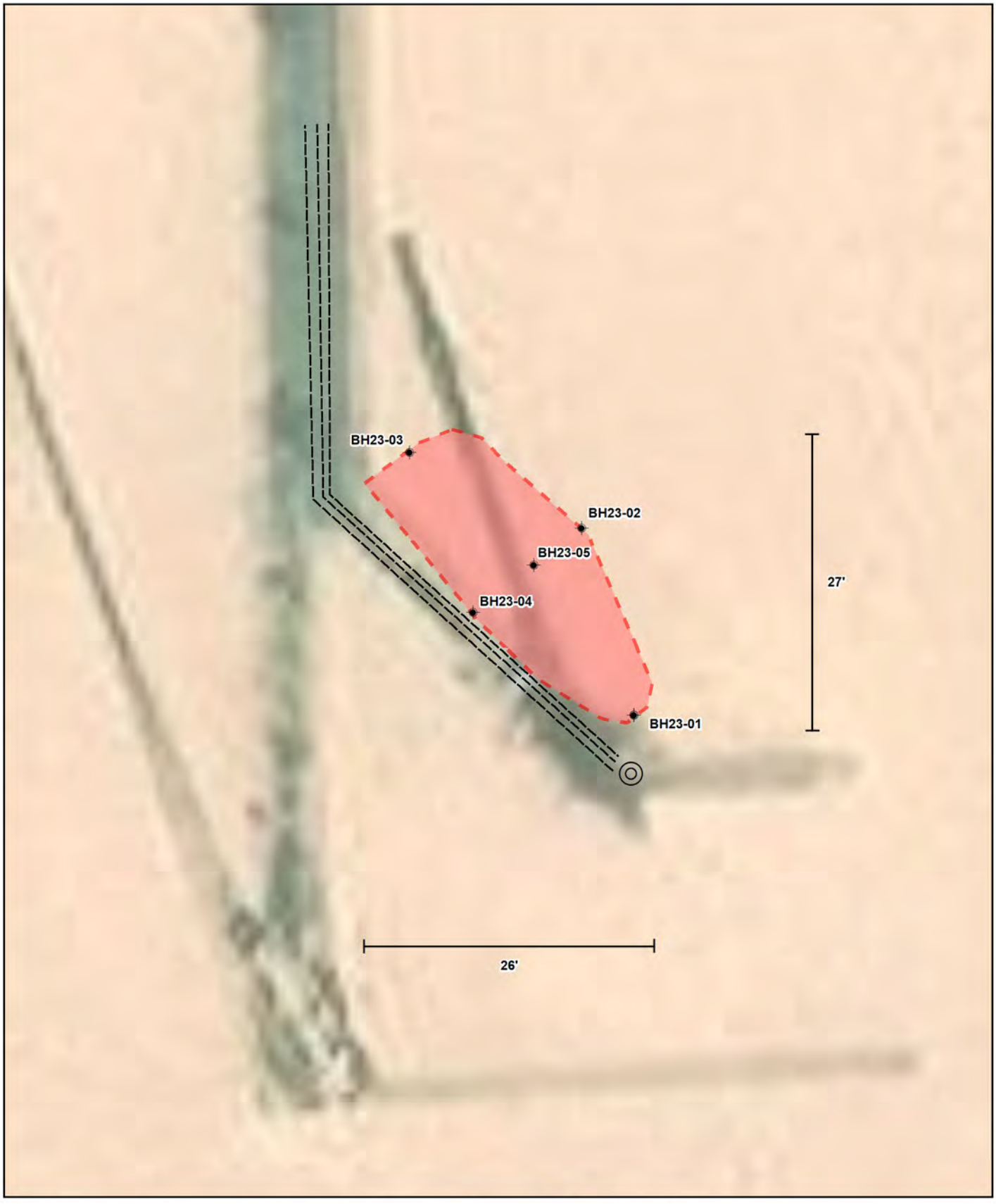
8.0 Limitations

This report has been prepared for the sole benefit of XTO Energy. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and the Bureau of Land Management, without the express written consent of Vertex Resource Services Inc. (Vertex) and XTO Energy. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

FIGURE



Borehole | Flare Stack | Pipeline (Aboveground) | Release Area (~333 sq.ft.)

VERTEX

0 2.25 4.5 9 ft.

NAD 1983 UTM Zone 13N

Date: Dec 05/23

Map Center:
Lat: 32.126374,
Long:-103.926794

N

Characterization Schematic
Muy Wayno 18 CTB

FIGURE: 1

XTO ENERGY

Note: Georeferenced image from Esri, 2022. Features from GPS. Vertex Professional Services Ltd., 2023.

Document Path: C:\Users\scarttar\Vertex Resource Group Ltd\Vertex US Operations - General\Environmental Services\01 - Job Files\XTO Energy\23E-05486 - Muy Wayno 18 CTB\13 - Geophysics\Geomatics\Figure 1 Characterization Muy Wayno (23E-05486) Req.mxd

TABLE

Client Name: XTO Energy
Site Name: Muy Wayno 18 CTB
NMOCD Tracking #: nAPP2326841759
Project #: 23E-05486
Lab Reports: 890-5660-1

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH23-01	0	2023-11-16	-	44	456	ND	ND	ND	ND	ND	ND	ND	126
	2	2023-11-16	-	32	51	ND	ND	ND	ND	ND	ND	ND	ND
BH23-02	0	2023-11-16	-	20	324	ND	ND	ND	ND	ND	ND	ND	194
	2	2023-11-16	-	11	75	ND	ND	ND	ND	ND	ND	ND	8
BH23-03	0	2023-11-16	-	22	512	ND	ND	ND	ND	ND	ND	ND	80
	2	2023-11-16	-	25	75	ND	ND	ND	ND	ND	ND	ND	16
BH23-04	0	2023-11-16	-	33	285	ND	ND	ND	ND	ND	ND	ND	75
	2	2023-11-16	-	27	79	ND	ND	ND	ND	ND	ND	ND	6
BH23-05	0	2023-11-16	-	33	285	ND	ND	ND	ND	ND	ND	ND	58
	2	2023-11-16	-	33	112	ND	ND	ND	ND	ND	ND	ND	13
	4	2023-11-16	-	14	93	ND	ND	ND	ND	ND	ND	ND	7

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed

APPENDIX A - NMOCD C-141 Report

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	nAPP2326841759
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Garrett Green	Contact Telephone 575-200-0729
Contact email garrett.green@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude 32.12730 Longitude -103.926767
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Muy Wayno 18 CTB	Site Type Central Tank Battery
Date Release Discovered 09/11/2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
L	18	25S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) .05	Volume Recovered (bbls) 0.00
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: During purging procedure, the LP guppy pump failed to drain the built-up condensate, which caused the fluid to release from the LP flare. Fluids ignited and extinguished upon hitting the pad surface. No injuries and no damage to equipment were reported. A third-party contractor has been retained for remediation purposes.

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Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2326841759
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? A release that results in a fire or is the result of a fire.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Melanie Collins to ocd.enviro@emnrd.nm.gov on 09/11/2023 via email.	

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:

NA

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

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

Printed Name: Garrett Green Title: Environmental Coordinator

Signature:  Date: 9/25/2023

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: _____ Date: _____

Location:	Muy Wayno 18 CTB	
Spill Date:	9/11/2023	
Area 1		
Approximate Area =	81.00	sq. ft.
Average Saturation (or depth) of spill =	1.25	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Condensate=	0.05	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Condensate =	**0.05**	**bbls**
Total Produced Water =	**0.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Condensate =	**0.00**	**bbls**
Total Produced Water =	**0.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2326841759
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

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

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

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

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

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

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2326841759
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Garrett Green Title: Environmental Coordinator

Signature: _____ Date: _____

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2326841759
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Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

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

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Garrett Green Title: Environmental Coordinator

Signature: _____ Date: _____

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B – Closure Criteria Research Documentation

C-04529 POD1 0.5-Mile Radius

12/5/2023, 4:13:27 PM

GIS WATERS PODs
- Pending
- Plugged
- OSE District Boundary

New Mexico State Trust Lands
- Both Estates

NHD Flowlines
- Stream River

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Online web user
This is an unofficial map from the OSE's online application.

Measurement

Miles

Measurement Result

0.49 Miles

Clear

Press CTRL to enable snapping

Find address or place

C-045 POD1

(1 of 2)

Point of Diversion: C-04529-POD1

Regulation Area	
Water Rights Summary	More info
Well Tag	NA
First Owner Info	Xto Energy Inc 6401 Holiday Hill Rd Midland, TX 79707
POD File	C-04529-POD1
Total Permitted Diversion Amount	0 ac/ft
Use of Well	
Permitted Use	MON
Status	PMT
POD Status	PLG
County	ED

Zoom to

1:4,514

32.133 -103.928 Degrees

Esri, HERE, iPC | Land Office Geographic Information Ce

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (MW-1)	n/a	C-4529

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	8'	2.07"	N
	LONGITUDE	103°	55'	42.27"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NW NW Sec. 18 T25S R30E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
05/14/2021	05/14/2021	temporary well material	101	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	101	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4529	POD NO. 1	TRN NO. 692934	
LOCATION Exp1 25S.30E.18.131		WELL TAG ID NO. —	PAGE 1 OF 2

OSE DII JUN 10 2021 PM2:45

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	SAND, poorly graded, fine-very grained, caliche gravel, Reddish-brown, dry	Y ✓ N	
4	29	25	CALICHE, poorly consolidated, with sand medium grained, tan-off white, dry	Y ✓ N	
29	39	10	SAND, poorly graded, fine-very grained, some caliche gravel, Tan-brown, dry	Y ✓ N	
39	54	15	SILTY SAND, poorly graded, very- fine grained, Light brown, dry	Y ✓ N	
54	59	5	SILTY SAND, poorly graded, very- fine grained, caliche gravel Light brown, dr	Y ✓ N	
59	73	14	SANDY CLAY, very-fine grained sand, low plasticity, Brown- Red Brown, moi	Y ✓ N	
73	79	6	CLAYEY SAND, low plasticity, very-fine grained sand, Brown/Red Brown, mo	Y ✓ N	
79	83	4	SANDY CLAY, very-fine grained sand, low plasticity, Brown- Dark Brown, mo	Y ✓ N	
83	94	9	SANDY CLAY, very-fine grained sand, low plasticity, Reddish Brown, moist	Y ✓ N	
94	99	5	SANDY CLAY, very-fine grained sand, low plasticity, Brown-Dark Brown, dry	Y ✓ N	
99	101	2	SANDY CLAY, very-fine grained sand, low plasticity, Earth Brown, dry	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 06/09/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4525	POD NO. 1	TRN NO. 692934
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

OSE DIT JUN 10 2021 PM2:45

New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 04529 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: XTO ENERGY INC

Contact: KYLE LITTRELL

x

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images 692934	EXPL	2021-04-20	PMT	APR	C 04529 POD1	T	0	0	

x

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 04529 POD1	NA		1	3	1	18	25S	30E	601077	3555733	SITE AT 32.133484, -103.928370

U.S. Fish and Wildlife Service
National Wetlands Inventory

Muy Wayno Watercourse 0.63 Mi

November 3, 2023

Wetlands

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

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

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Muy Wayno Pond 2.4 Mi

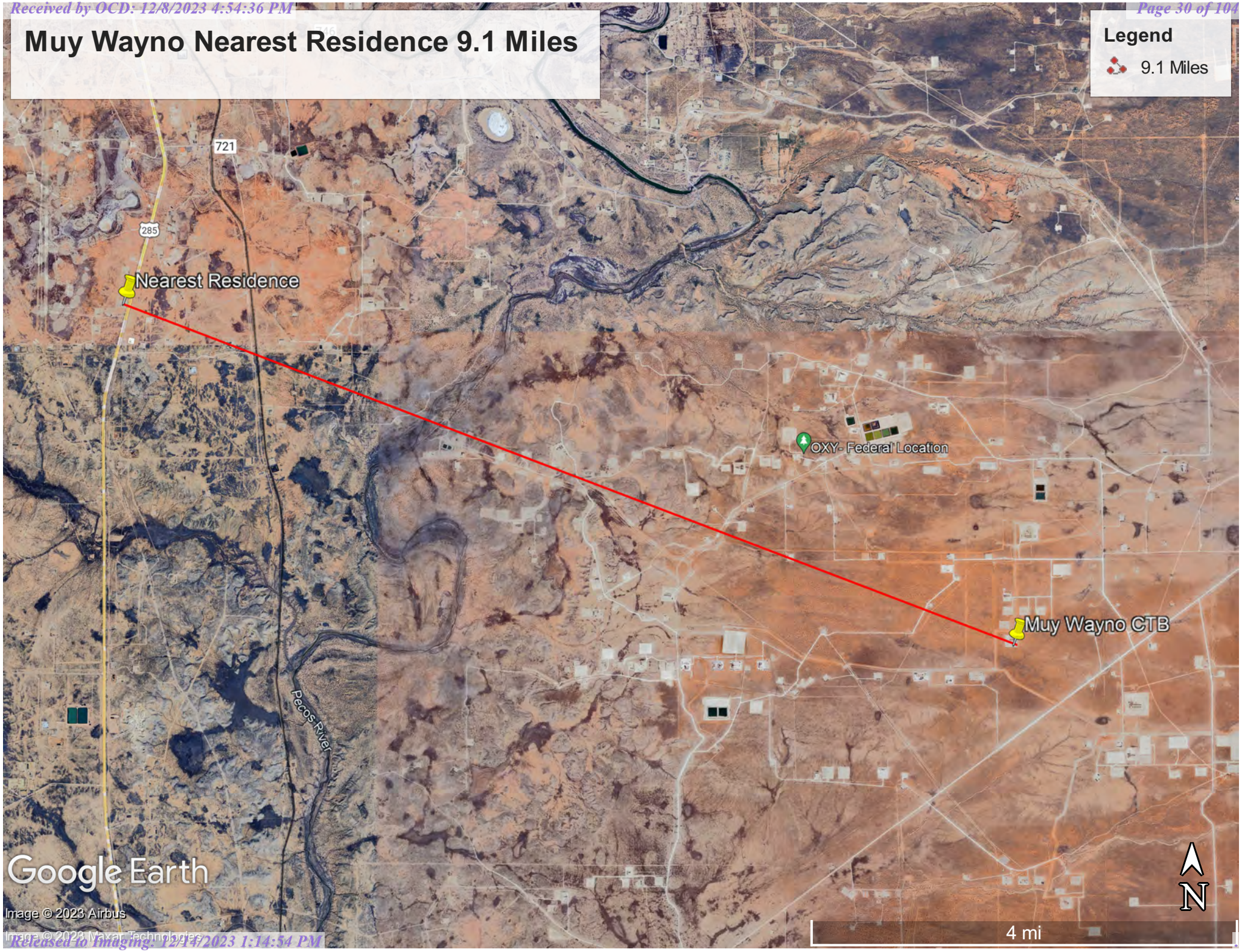
November 3, 2023

Wetlands

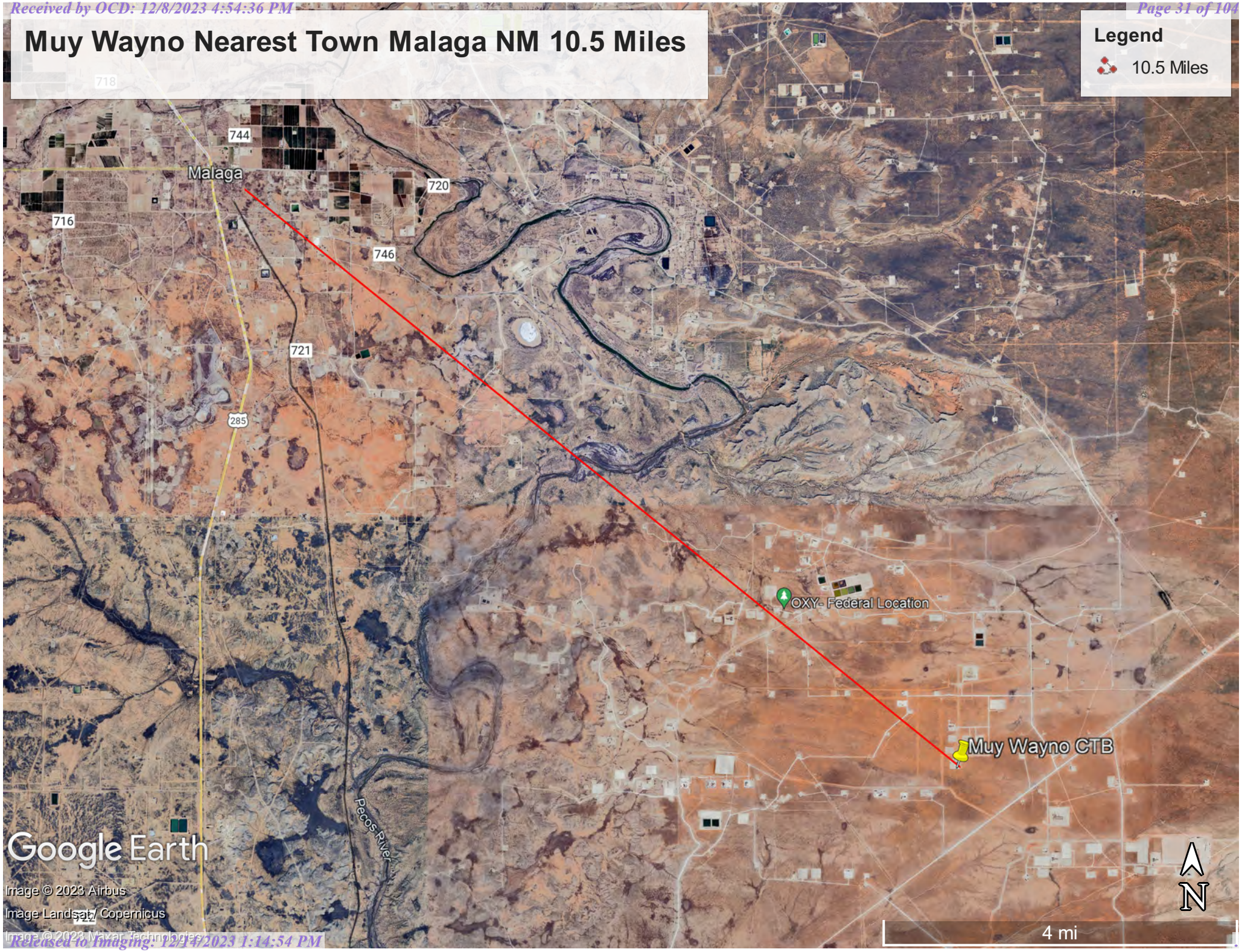
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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

Muy Wayno Nearest Residence 9.1 Miles

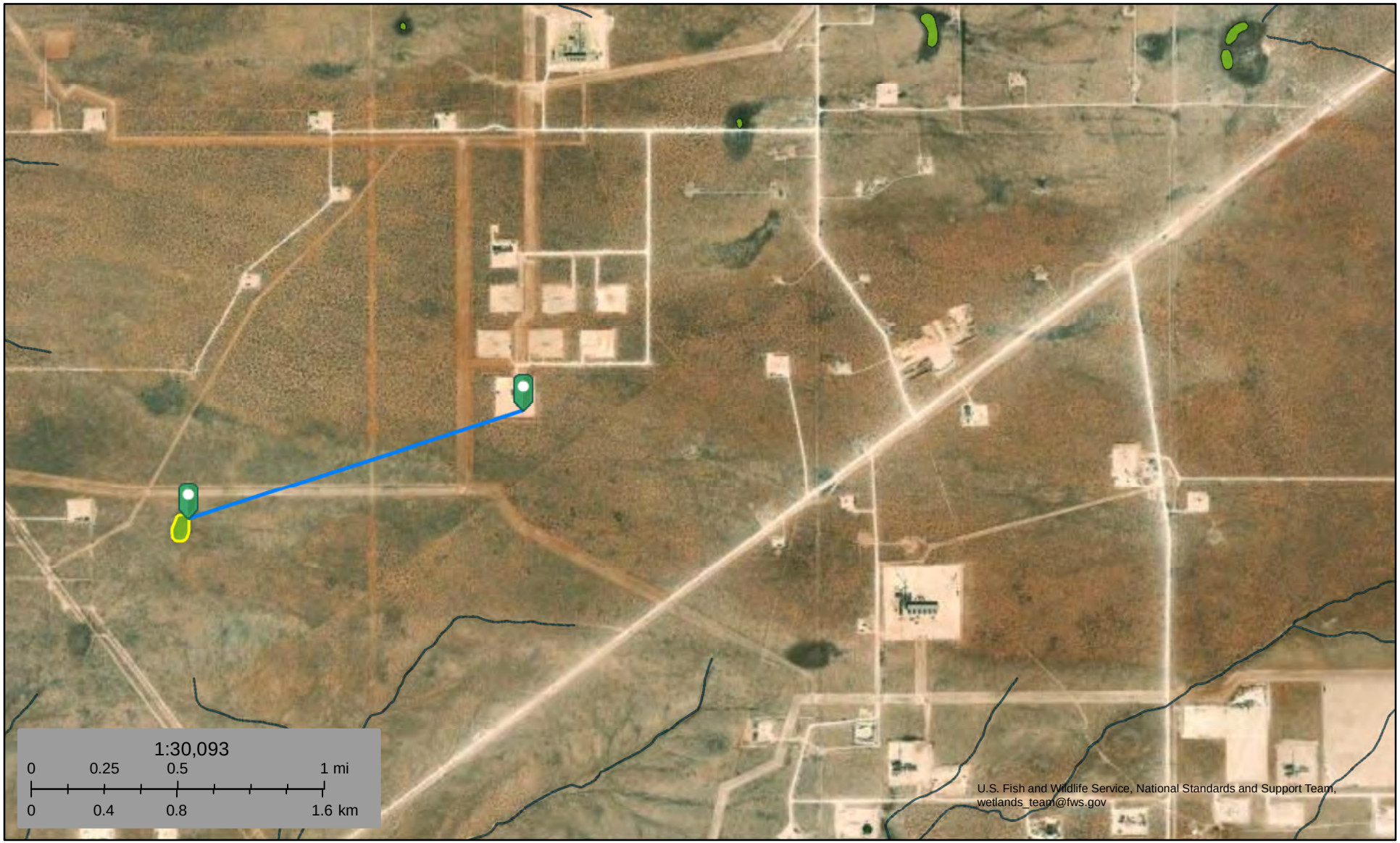


Muy Wayno Nearest Town Malaga NM 10.5 Miles



U.S. Fish and Wildlife Service
National Wetlands Inventory

Muy Wayno 18 CTB Nearest Wetland 1.02



November 3, 2023

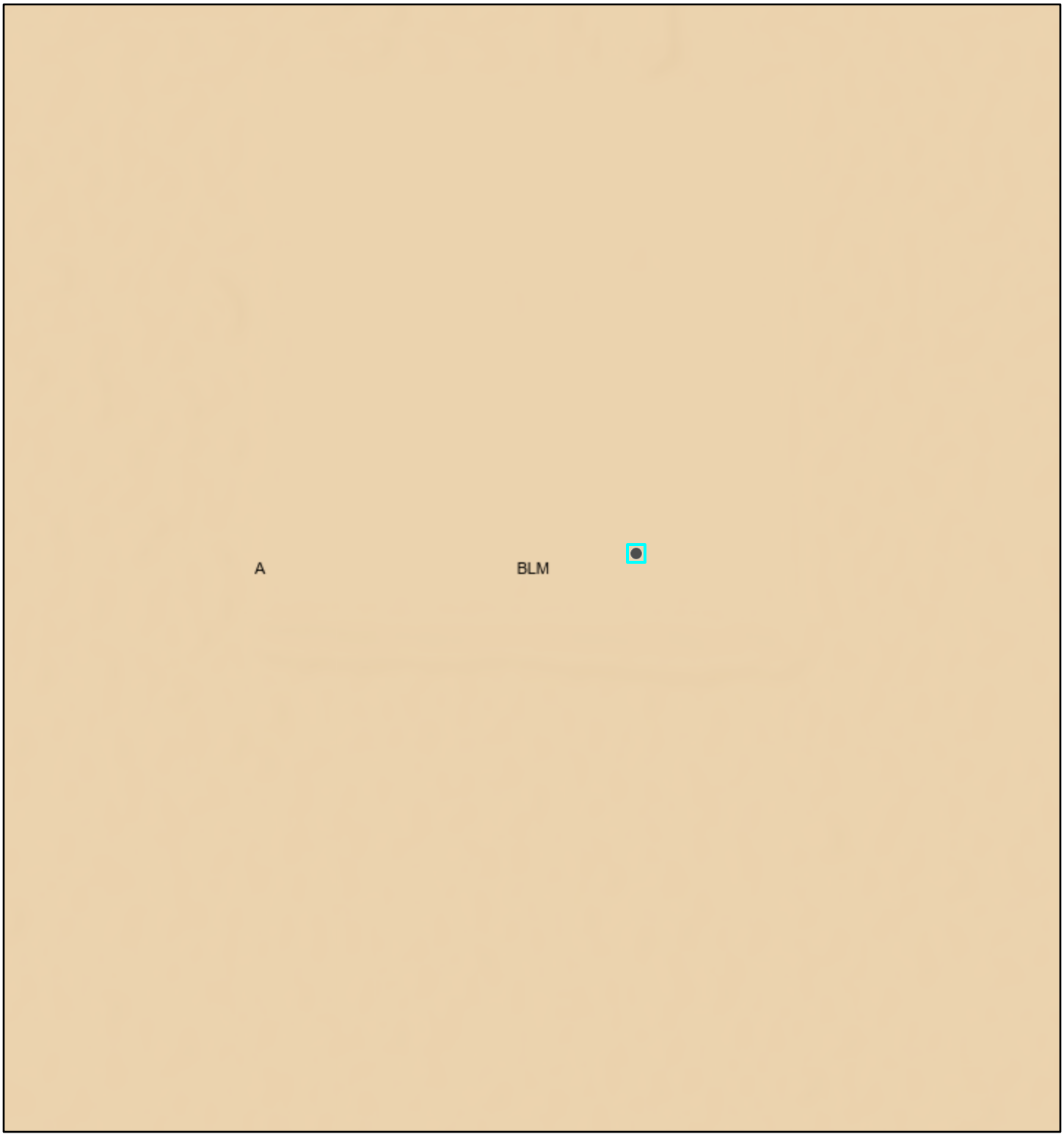
Wetlands

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

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

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

Muy Wanyo Mines



11/3/2023, 12:51:11 PM

1:2,257

0 0.01 0.03 0.06 mi

0 0.03 0.05 0.1 km

Mineral Ownership

A-All minerals are owned by U.S.

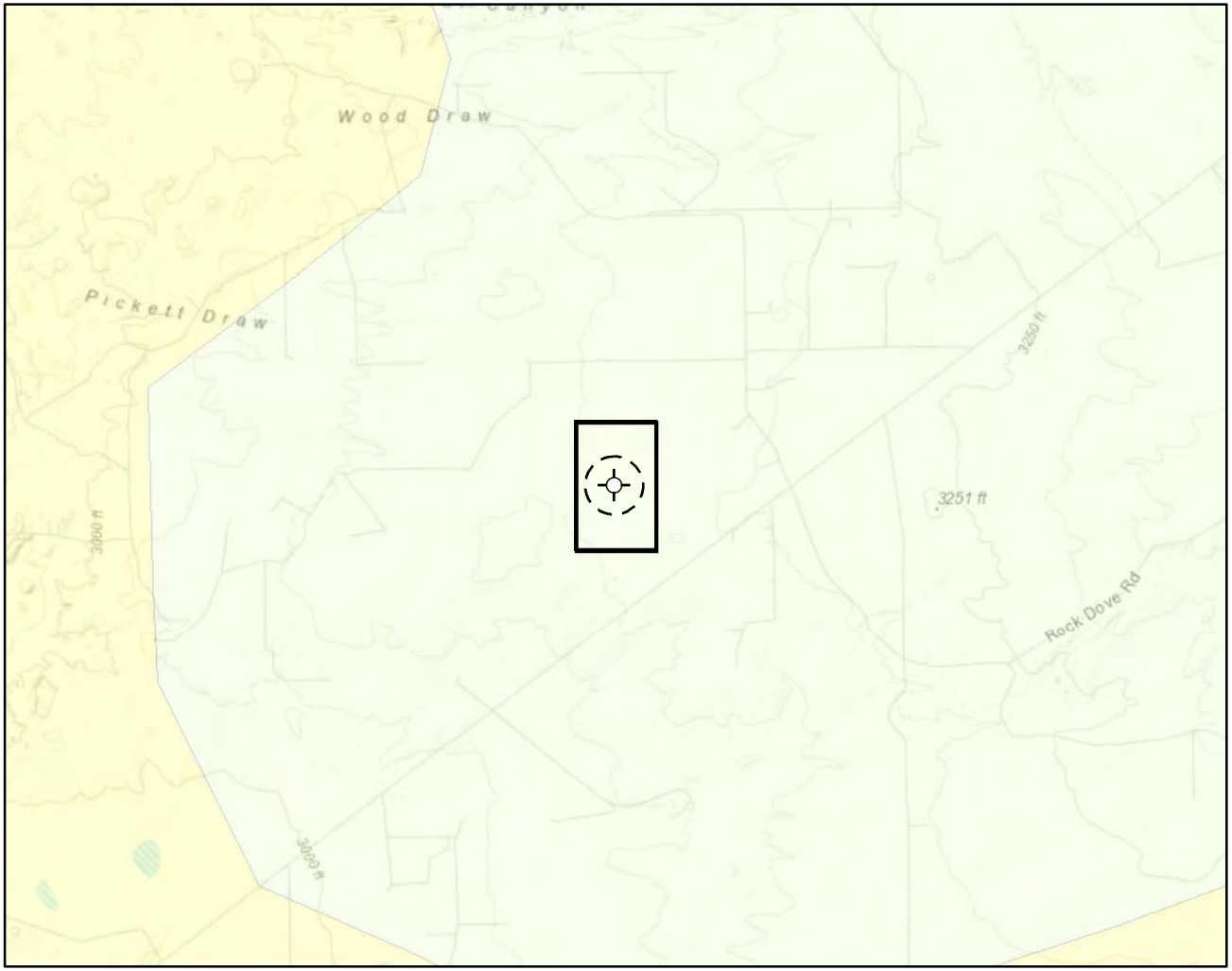
Land Ownership

BLM

U.S. BLM, Esri Community Maps Contributors, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NM Coal Mine Reclamation Program, NM EMNRD, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS,

EMNRD MMD GIS Coordinator

NM EMNRD Mines and Mineral Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappbuilder/index.html?id=7ebfa3c432db42978d66c99a9cc8311a)



Karst Potential

- Critical
- High
- Medium
- Low

- Site Location
- Buffer Location (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft

VERTEX

Map Center:
Lat/Long: 32.126341, -103.926821

NAD 1983 UTM Zone 13N
Date: Nov 07/23

N

Karst Potential Map
Muy Wayno 18 CTB

FIGURE:
X

XTO ENERGY

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

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

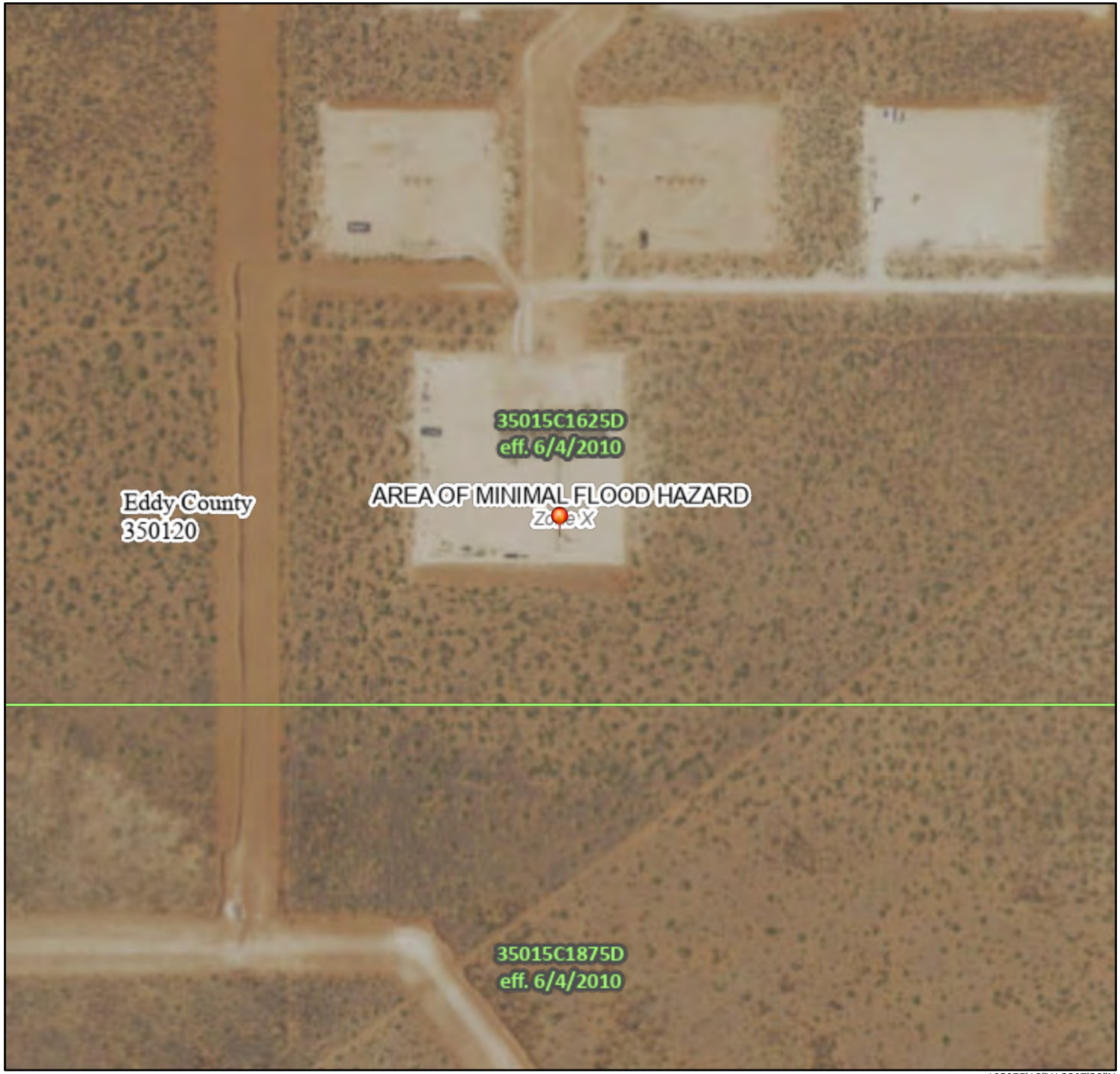
VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\XTO Energy\23E-05486 - Muy Wayno 18\Figure X Karst Potential Map (23E-05486)\D17384.mxd

National Flood Hazard Layer FIRMette

FEMA

103°55'55"W 32°7'50"N



103°55'18"W 32°7'20"N

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

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

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

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

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

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

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

OTHER FEATURES
- 20.2 / 17.5 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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/3/2023 at 3:11 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.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eddy Area, New Mexico

November 3, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

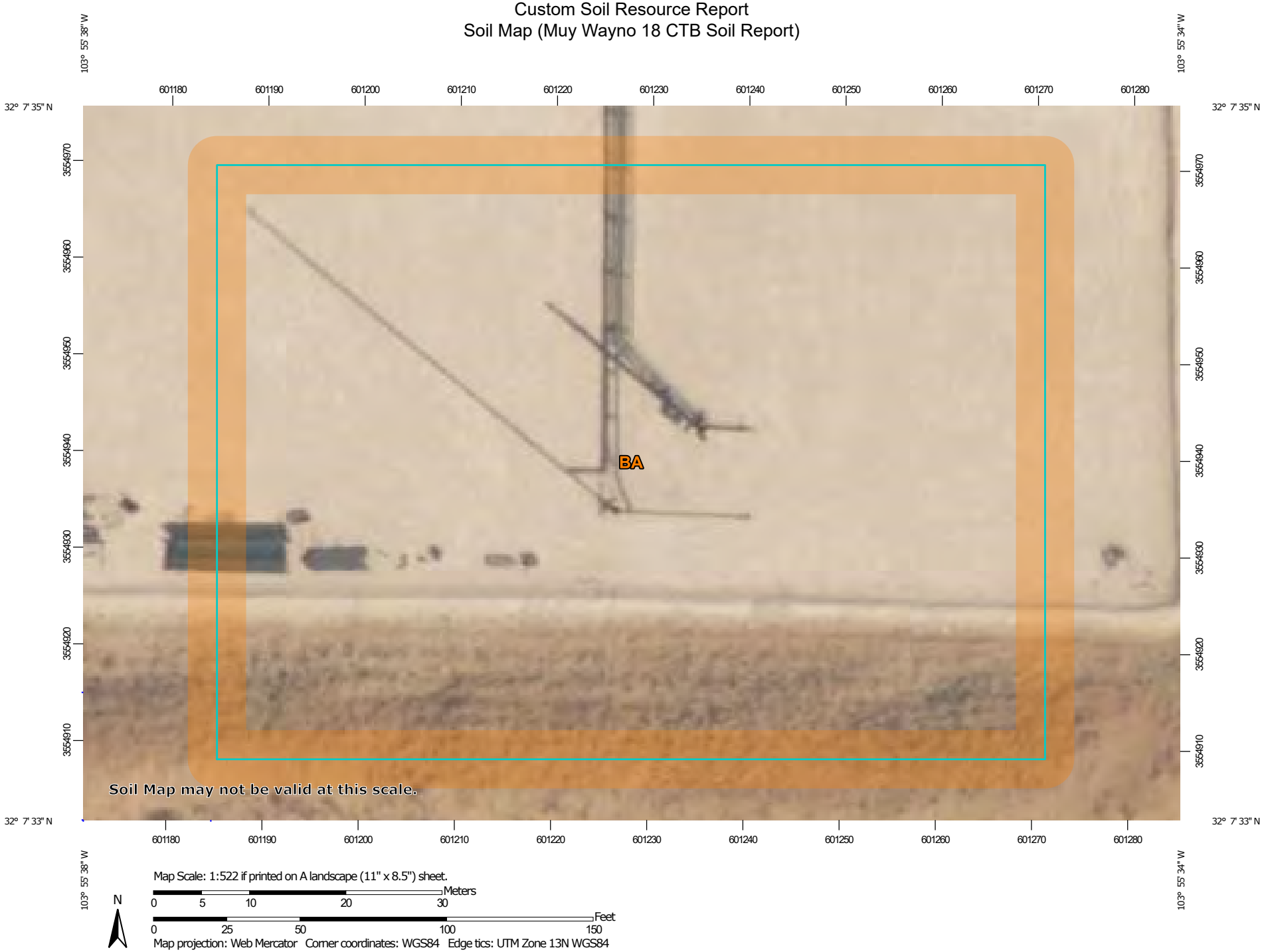
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map (Muy Wayno 18 CTB Soil Report)



MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 19, Sep 7, 2023

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.

Map Unit Legend (Muy Wayno 18 CTB Soil Report)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BA	Berino loamy fine sand, 0 to 3 percent slopes	1.3	100.0%
Totals for Area of Interest		**1.3**	**100.0%**

Map Unit Descriptions (Muy Wayno 18 CTB Soil Report)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eddy Area, New Mexico

BA—Berino loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w42
Elevation: 2,000 to 5,700 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Berino

Setting

Landform: Plains, fan piedmonts
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 12 inches: loamy fine sand
H2 - 12 to 58 inches: sandy clay loam
H3 - 58 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 1 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

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APPENDIX C – Daily Field Report


Sep 11, 2023 at 18:41:00
Carlsbad NM 88220
United States

Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	11/16/2023
Site Location Name:	Muy Wayno 18 CTB	Report Run Date:	11/17/2023 8:22 PM
Client Contact Name:	Garrett Green	API #:	
Client Contact Phone #:	575-200-0729		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	11/16/2023 12:14 PM
Departed Site	11/16/2023 2:02 PM

Field Notes

13:58 Arrived on site and filled out paperwork.

13:58 Conducted site walkthrough and mapped area.

14:02 Collected and field screened samples BH23-01 through 04 at 0’ and 2’. Also collected BH23-05 at 0’, 2’,and 4’. Jarred and prepped samples for lab submission.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: West

Release area with point of release. Boreholes in photo.

Viewing Direction: South

Release area.

Viewing Direction: Southeast

Release area.

Viewing Direction: Northeast

Release area near point of release.

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: Northeast
	
Release area.	Release area.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Hunter Klein

Signature:

APPENDIX D – Notification(s)

Collins, Melanie

From: Collins, Melanie
Sent: Monday, September 11, 2023 7:26 PM
To: DelawareSpills /SM
Subject: FW: 24-Hour notification Muy Wayno 18 CTB 9-11-23

Follow Up Flag: Follow up
Flag Status: Flagged

Melanie Collins

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

From: Collins, Melanie
Sent: Monday, September 11, 2023 7:26 PM
To: ocd.enviro (ocd.enviro@emnrd.nm.gov) <ocd.enviro@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>; Dach, Michael M <michael.dach@exxonmobil.com>
Subject: 24-Hour notification Muy Wayno 18 CTB 9-11-23

All,

This is notification of a flare fire incident that occurred today, 9/11/23, at the Muy Wayno 18 Central Tank Battery near the coordinates listed below. Details will be provided with a Form C-141. Please reach out with questions or concerns.

GPS 32.127309, -103.926767

Thank you,

Melanie Collins

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

APPENDIX E – Laboratory Data Report and Chain of Custody Form

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 11/28/2023 12:49:20 PM

JOB DESCRIPTION

MUY WAYNO
23E-05486

JOB NUMBER

890-5660-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

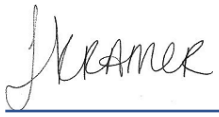
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
11/28/2023 12:49:20 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Vertex
Project/Site: MUY WAYNO

Laboratory Job ID: 890-5660-1
SDG: 23E-05486

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 890-5660-1
Project/Site: MUY WAYNO SDG: 23E-05486

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Job ID: 890-5660-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-5660-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/17/2023 12:41 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH23 - 01 0' (890-5660-1), BH23 - 01 2' (890-5660-2), BH23 - 02 0' (890-5660-3), BH23 - 02 2' (890-5660-4), BH23 - 03 0' (890-5660-5), BH23 - 03 2' (890-5660-6), BH23 - 04 0' (890-5660-7), BH23 - 04 2' (890-5660-8), BH23 - 05 0' (890-5660-9), BH23 - 05 2' (890-5660-10) and BH23 - 05 4' (890-5660-11).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-67587/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH23 - 03 0' (890-5660-5), (CCV 880-67689/33) and (LCSD 880-67587/2-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-67694/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-67587 and analytical batch 880-67689 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-67700 and analytical batch 880-67682 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH23 - 01 0' (890-5660-1), BH23 - 01 2' (890-5660-2), BH23 - 02 0' (890-5660-3), BH23 - 02 2' (890-5660-4), BH23 - 03 0' (890-5660-5), BH23 - 04 0' (890-5660-7), BH23 - 04 2' (890-5660-8), BH23 - 05 0' (890-5660-9), BH23 - 05 4' (890-5660-11), (890-5655-A-1-C), (890-5655-A-1-D MS) and (890-5655-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-67700 and analytical batch 880-67682 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference

Case Narrative

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Job ID: 890-5660-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 01 0'

Lab Sample ID: 890-5660-1
Matrix: Solid
Date Collected: 11/16/23 11:00
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 06:16	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 06:16	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 06:16	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/21/23 16:50	11/28/23 06:16	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 06:16	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/21/23 16:50	11/28/23 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*11/21/23 16:50*	*11/28/23 06:16*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/21/23 16:50*	*11/28/23 06:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/28/23 06:16	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/27/23 13:24	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/27/23 09:32	11/27/23 13:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/27/23 09:32	11/27/23 13:24	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/27/23 09:32	11/27/23 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 13:24*	*1*
o-Terphenyl	*114*		*70 - 130*	*11/27/23 09:32*	*11/27/23 13:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**126**		5.00		mg/Kg			11/23/23 00:36	1

Client Sample ID: BH23 - 01 2'

Lab Sample ID: 890-5660-2
Matrix: Solid
Date Collected: 11/16/23 11:05
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:02	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/21/23 16:50	11/28/23 08:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:02	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/21/23 16:50	11/28/23 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/21/23 16:50*	*11/28/23 08:02*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*11/21/23 16:50*	*11/28/23 08:02*	*1*

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 01 2'

Lab Sample ID: 890-5660-2
Matrix: Solid
Date Collected: 11/16/23 11:05
Date Received: 11/17/23 12:41

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/28/23 08:02	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			11/27/23 13:46	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		11/27/23 09:32	11/27/23 13:46	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		11/27/23 09:32	11/27/23 13:46	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		11/27/23 09:32	11/27/23 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*151*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 13:46*	*1*
o-Terphenyl	*124*		*70 - 130*	*11/27/23 09:32*	*11/27/23 13:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			11/23/23 00:41	1

Client Sample ID: BH23 - 02 0'

Lab Sample ID: 890-5660-3
Matrix: Solid
Date Collected: 11/16/23 11:10
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/21/23 16:50	11/28/23 08:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 08:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/21/23 16:50	11/28/23 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*11/21/23 16:50*	*11/28/23 08:28*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/21/23 16:50*	*11/28/23 08:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/28/23 08:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			11/27/23 14:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		11/27/23 09:32	11/27/23 14:08	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		11/27/23 09:32	11/27/23 14:08	1

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 02 0'

Lab Sample ID: 890-5660-3
Matrix: Solid
Date Collected: 11/16/23 11:10
Date Received: 11/17/23 12:41

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/27/23 09:32	11/27/23 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*141*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 14:08*	*1*
o-Terphenyl	*119*		*70 - 130*	*11/27/23 09:32*	*11/27/23 14:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**194**		5.01		mg/Kg			11/23/23 00:47	1

Client Sample ID: BH23 - 02 2'

Lab Sample ID: 890-5660-4
Matrix: Solid
Date Collected: 11/16/23 11:15
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 08:54	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 08:54	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 08:54	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/21/23 16:50	11/28/23 08:54	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 08:54	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/21/23 16:50	11/28/23 08:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*11/21/23 16:50*	*11/28/23 08:54*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*11/21/23 16:50*	*11/28/23 08:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/28/23 08:54	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			11/27/23 14:30	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		11/27/23 09:32	11/27/23 14:30	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/27/23 09:32	11/27/23 14:30	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		11/27/23 09:32	11/27/23 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*143*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 14:30*	*1*
o-Terphenyl	*120*		*70 - 130*	*11/27/23 09:32*	*11/27/23 14:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.48**		4.99		mg/Kg			11/23/23 01:04	1

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 03 0'

Lab Sample ID: 890-5660-5
Matrix: Solid
Date Collected: 11/16/23 11:20
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 09:21	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 09:21	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 09:21	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/21/23 16:50	11/28/23 09:21	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/21/23 16:50	11/28/23 09:21	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/21/23 16:50	11/28/23 09:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/21/23 16:50*	*11/28/23 09:21*	*1*
1,4-Difluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*11/21/23 16:50*	*11/28/23 09:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/28/23 09:21	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/27/23 14:52	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/27/23 09:32	11/27/23 14:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/27/23 09:32	11/27/23 14:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/27/23 09:32	11/27/23 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 14:52*	*1*
o-Terphenyl	*113*		*70 - 130*	*11/27/23 09:32*	*11/27/23 14:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79.9**		4.95		mg/Kg			11/23/23 01:09	1

Client Sample ID: BH23 - 03 2'

Lab Sample ID: 890-5660-6
Matrix: Solid
Date Collected: 11/16/23 11:25
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 09:47	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 09:47	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 09:47	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/21/23 16:50	11/28/23 09:47	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 09:47	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/21/23 16:50	11/28/23 09:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*11/21/23 16:50*	*11/28/23 09:47*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/21/23 16:50*	*11/28/23 09:47*	*1*

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 03 2'

Lab Sample ID: 890-5660-6
Matrix: Solid
Date Collected: 11/16/23 11:25
Date Received: 11/17/23 12:41

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/28/23 09:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/27/23 15:35	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/27/23 09:32	11/27/23 15:35	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/27/23 09:32	11/27/23 15:35	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/27/23 09:32	11/27/23 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*11/27/23 09:32*	*11/27/23 15:35*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/27/23 09:32*	*11/27/23 15:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.9**		4.97		mg/Kg			11/23/23 01:26	1

Client Sample ID: BH23 - 04 0'

Lab Sample ID: 890-5660-7
Matrix: Solid
Date Collected: 11/16/23 11:30
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 10:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 10:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 10:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/21/23 16:50	11/28/23 10:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 10:13	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/21/23 16:50	11/28/23 10:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*11/21/23 16:50*	*11/28/23 10:13*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*11/21/23 16:50*	*11/28/23 10:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/28/23 10:13	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			11/27/23 15:58	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		11/27/23 09:32	11/27/23 15:58	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		11/27/23 09:32	11/27/23 15:58	1

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Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 04 0'

Lab Sample ID: 890-5660-7
Matrix: Solid
Date Collected: 11/16/23 11:30
Date Received: 11/17/23 12:41

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		11/27/23 09:32	11/27/23 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*141*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 15:58*	*1*
o-Terphenyl	*118*		*70 - 130*	*11/27/23 09:32*	*11/27/23 15:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**75.3**		4.95		mg/Kg			11/23/23 01:32	1

Client Sample ID: BH23 - 04 2'

Lab Sample ID: 890-5660-8
Matrix: Solid
Date Collected: 11/16/23 11:35
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/21/23 16:50	11/28/23 10:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/21/23 16:50	11/28/23 10:39	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/21/23 16:50	11/28/23 10:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/21/23 16:50	11/28/23 10:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/21/23 16:50	11/28/23 10:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/21/23 16:50	11/28/23 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*11/21/23 16:50*	*11/28/23 10:39*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*11/21/23 16:50*	*11/28/23 10:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/28/23 10:39	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/27/23 16:19	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/27/23 09:32	11/27/23 16:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/27/23 09:32	11/27/23 16:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/27/23 09:32	11/27/23 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*151*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 16:19*	*1*
o-Terphenyl	*122*		*70 - 130*	*11/27/23 09:32*	*11/27/23 16:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.83**		5.01		mg/Kg			11/23/23 01:38	1

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 05 0'

Lab Sample ID: 890-5660-9
Matrix: Solid
Date Collected: 11/16/23 11:40
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 11:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 11:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 11:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/21/23 16:50	11/28/23 11:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/21/23 16:50	11/28/23 11:06	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/21/23 16:50	11/28/23 11:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/21/23 16:50*	*11/28/23 11:06*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/21/23 16:50*	*11/28/23 11:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/28/23 11:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			11/27/23 16:42	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		11/27/23 09:32	11/27/23 16:42	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		11/27/23 09:32	11/27/23 16:42	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		11/27/23 09:32	11/27/23 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*138*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 16:42*	*1*
o-Terphenyl	*115*		*70 - 130*	*11/27/23 09:32*	*11/27/23 16:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.7**		5.02		mg/Kg			11/23/23 01:43	1

Client Sample ID: BH23 - 05 2'

Lab Sample ID: 890-5660-10
Matrix: Solid
Date Collected: 11/16/23 11:45
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 11:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 11:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 11:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/21/23 16:50	11/28/23 11:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 11:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/21/23 16:50	11/28/23 11:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/21/23 16:50*	*11/28/23 11:32*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/21/23 16:50*	*11/28/23 11:32*	*1*

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 05 2'

Lab Sample ID: 890-5660-10
Matrix: Solid
Date Collected: 11/16/23 11:45
Date Received: 11/17/23 12:41

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/28/23 11:32	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			11/27/23 17:04	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		11/27/23 09:32	11/27/23 17:04	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		11/27/23 09:32	11/27/23 17:04	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		11/27/23 09:32	11/27/23 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/27/23 09:32*	*11/27/23 17:04*	*1*
o-Terphenyl	*93*		*70 - 130*	*11/27/23 09:32*	*11/27/23 17:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.8**		5.04		mg/Kg			11/23/23 01:49	1

Client Sample ID: BH23 - 05 4'

Lab Sample ID: 890-5660-11
Matrix: Solid
Date Collected: 11/16/23 11:50
Date Received: 11/17/23 12:41

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 11:58	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 11:58	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 11:58	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/21/23 16:50	11/28/23 11:58	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/21/23 16:50	11/28/23 11:58	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/21/23 16:50	11/28/23 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/21/23 16:50*	*11/28/23 11:58*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*11/21/23 16:50*	*11/28/23 11:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/28/23 11:58	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			11/27/23 17:28	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		11/27/23 09:32	11/27/23 17:28	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		11/27/23 09:32	11/27/23 17:28	1

Client Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 05 4'
Date Collected: 11/16/23 11:50
Date Received: 11/17/23 12:41

Lab Sample ID: 890-5660-11
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/27/23 09:32	11/27/23 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*11/27/23 09:32*	*11/27/23 17:28*	*1*
o-Terphenyl	*113*		*70 - 130*	*11/27/23 09:32*	*11/27/23 17:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.08**		4.99		mg/Kg			11/23/23 01:55	1

Surrogate Summary

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
		Percent Surrogate Recovery (Acceptance Limits)	
890-5652-A-1-C MS	Matrix Spike	116	89
890-5652-A-1-D MSD	Matrix Spike Duplicate	114	98
890-5660-1	BH23 - 01 0'	130	111
890-5660-2	BH23 - 01 2'	99	92
890-5660-3	BH23 - 02 0'	122	93
890-5660-4	BH23 - 02 2'	106	91
890-5660-5	BH23 - 03 0'	120	137 S1+
890-5660-6	BH23 - 03 2'	92	84
890-5660-7	BH23 - 04 0'	86	83
890-5660-8	BH23 - 04 2'	128	116
890-5660-9	BH23 - 05 0'	123	96
890-5660-10	BH23 - 05 2'	107	89
890-5660-11	BH23 - 05 4'	98	83
LCS 880-67587/1-A	Lab Control Sample	116	124
LCSD 880-67587/2-A	Lab Control Sample Dup	130	136 S1+
MB 880-67587/5-A	Method Blank	55 S1-	91
MB 880-67694/5-A	Method Blank	54 S1-	82

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
		Percent Surrogate Recovery (Acceptance Limits)	
890-5655-A-1-D MS	Matrix Spike	153 S1+	111
890-5655-A-1-E MSD	Matrix Spike Duplicate	145 S1+	109
890-5660-1	BH23 - 01 0'	134 S1+	114
890-5660-2	BH23 - 01 2'	151 S1+	124
890-5660-3	BH23 - 02 0'	141 S1+	119
890-5660-4	BH23 - 02 2'	143 S1+	120
890-5660-5	BH23 - 03 0'	133 S1+	113
890-5660-6	BH23 - 03 2'	128	106
890-5660-7	BH23 - 04 0'	141 S1+	118
890-5660-8	BH23 - 04 2'	151 S1+	122
890-5660-9	BH23 - 05 0'	138 S1+	115
890-5660-10	BH23 - 05 2'	113	93
890-5660-11	BH23 - 05 4'	135 S1+	113
LCS 880-67700/2-A	Lab Control Sample	111	104
LCSD 880-67700/3-A	Lab Control Sample Dup	116	116
MB 880-67700/1-A	Method Blank	151 S1+	140 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-67587/5-A
Matrix: Solid
Analysis Batch: 67689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67587

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 02:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 02:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 02:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/21/23 16:50	11/28/23 02:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 16:50	11/28/23 02:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/21/23 16:50	11/28/23 02:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*55*	*S1-*	*70 - 130*	*11/21/23 16:50*	*11/28/23 02:00*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*11/21/23 16:50*	*11/28/23 02:00*	*1*

Lab Sample ID: LCS 880-67587/1-A
Matrix: Solid
Analysis Batch: 67689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67587

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08664		mg/Kg		87	70 - 130		
Toluene			0.100	0.09013		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08909		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1706		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08496		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Lab Sample ID: LCSD 880-67587/2-A
Matrix: Solid
Analysis Batch: 67689

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67587

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09164		mg/Kg		92	70 - 130	6	35
Toluene			0.100	0.09886		mg/Kg		99	70 - 130	9	35
Ethylbenzene			0.100	0.1003		mg/Kg		100	70 - 130	12	35
m-Xylene & p-Xylene			0.200	0.1950		mg/Kg		97	70 - 130	13	35
o-Xylene			0.100	0.09616		mg/Kg		96	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*
1,4-Difluorobenzene (Surr)	*136*	*S1+*	*70 - 130*

Lab Sample ID: 890-5652-A-1-C MS
Matrix: Solid
Analysis Batch: 67689

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 67587

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U F1	0.0996	0.07634		mg/Kg		76	70 - 130		
Toluene	<0.00199	U F1	0.0996	0.07498		mg/Kg		75	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-5652-A-1-C MS
Matrix: Solid
Analysis Batch: 67689

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 67587

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.0996	0.06207	F1	mg/Kg		62	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1307	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00199	U F1	0.0996	0.07267		mg/Kg		73	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 890-5652-A-1-D MSD
Matrix: Solid
Analysis Batch: 67689

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 67587

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.06395	F1	mg/Kg		63	70 - 130	18	35
Toluene	<0.00199	U F1	0.100	0.06776	F1	mg/Kg		68	70 - 130	10	35
Ethylbenzene	<0.00199	U F1	0.100	0.05547	F1	mg/Kg		55	70 - 130	11	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1169	F1	mg/Kg		58	70 - 130	11	35
o-Xylene	<0.00199	U F1	0.100	0.06470	F1	mg/Kg		65	70 - 130	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: MB 880-67694/5-A
Matrix: Solid
Analysis Batch: 67689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67694

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/27/23 09:14	11/27/23 12:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/27/23 09:14	11/27/23 12:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/27/23 09:14	11/27/23 12:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/27/23 09:14	11/27/23 12:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/27/23 09:14	11/27/23 12:32	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/27/23 09:14	11/27/23 12:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*54*	*S1-*	*70 - 130*	*11/27/23 09:14*	*11/27/23 12:32*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*11/27/23 09:14*	*11/27/23 12:32*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-67700/1-A
Matrix: Solid
Analysis Batch: 67682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67700

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/27/23 08:00	11/27/23 08:18	1

QC Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-67700/1-A
Matrix: Solid
Analysis Batch: 67682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67700

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/27/23 08:00	11/27/23 08:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/27/23 08:00	11/27/23 08:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*151*	*S1+*	*70 - 130*	*11/27/23 08:00*	*11/27/23 08:18*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*11/27/23 08:00*	*11/27/23 08:18*	*1*

Lab Sample ID: LCS 880-67700/2-A
Matrix: Solid
Analysis Batch: 67682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67700

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1104		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1250		mg/Kg		125	70 - 130		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane			*111*		*70 - 130*
o-Terphenyl			*104*		*70 - 130*

Lab Sample ID: LCSD 880-67700/3-A
Matrix: Solid
Analysis Batch: 67682

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67700

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1077		mg/Kg		108	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1120		mg/Kg		112	70 - 130	11	20

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane			*116*		*70 - 130*
o-Terphenyl			*116*		*70 - 130*

Lab Sample ID: 890-5655-A-1-D MS
Matrix: Solid
Analysis Batch: 67682

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 67700

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1000	1105		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	1537	F1	mg/Kg		152	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*153*	*S1+*	*70 - 130*
o-Terphenyl	*111*		*70 - 130*

QC Sample Results

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-5655-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 67682 — **Prep Batch: 67700**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1000	1087		mg/Kg		107	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	1488	F1	mg/Kg		147	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*145*	*S1+*	*70 - 130*
o-Terphenyl	*109*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-67456/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 67658

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/22/23 23:11	1

Lab Sample ID: LCS 880-67456/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 67658

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	232.5		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-67456/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 67658

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	236.5		mg/Kg		95	90 - 110	2	20

Lab Sample ID: 890-5660-3 MS — **Client Sample ID: BH23 - 02 0'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 67658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	194		251	426.1		mg/Kg		93	90 - 110		

Lab Sample ID: 890-5660-3 MSD — **Client Sample ID: BH23 - 02 0'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 67658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	194		251	426.0		mg/Kg		93	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

GC VOA

Prep Batch: 67587

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Total/NA	Solid	5035	
890-5660-2	BH23 - 01	2'	Total/NA	Solid	5035	
890-5660-3	BH23 - 02	0'	Total/NA	Solid	5035	
890-5660-4	BH23 - 02	2'	Total/NA	Solid	5035	
890-5660-5	BH23 - 03	0'	Total/NA	Solid	5035	
890-5660-6	BH23 - 03	2'	Total/NA	Solid	5035	
890-5660-7	BH23 - 04	0'	Total/NA	Solid	5035	
890-5660-8	BH23 - 04	2'	Total/NA	Solid	5035	
890-5660-9	BH23 - 05	0'	Total/NA	Solid	5035	
890-5660-10	BH23 - 05	2'	Total/NA	Solid	5035	
890-5660-11	BH23 - 05	4'	Total/NA	Solid	5035	
MB 880-67587/5-A	Method Blank		Total/NA	Solid	5035	
LCS 880-67587/1-A	Lab Control Sample		Total/NA	Solid	5035	
LCSD 880-67587/2-A	Lab Control Sample Dup		Total/NA	Solid	5035	
890-5652-A-1-C MS	Matrix Spike		Total/NA	Solid	5035	
890-5652-A-1-D MSD	Matrix Spike Duplicate		Total/NA	Solid	5035	

Analysis Batch: 67689

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Total/NA	Solid	8021B	67587
890-5660-2	BH23 - 01	2'	Total/NA	Solid	8021B	67587
890-5660-3	BH23 - 02	0'	Total/NA	Solid	8021B	67587
890-5660-4	BH23 - 02	2'	Total/NA	Solid	8021B	67587
890-5660-5	BH23 - 03	0'	Total/NA	Solid	8021B	67587
890-5660-6	BH23 - 03	2'	Total/NA	Solid	8021B	67587
890-5660-7	BH23 - 04	0'	Total/NA	Solid	8021B	67587
890-5660-8	BH23 - 04	2'	Total/NA	Solid	8021B	67587
890-5660-9	BH23 - 05	0'	Total/NA	Solid	8021B	67587
890-5660-10	BH23 - 05	2'	Total/NA	Solid	8021B	67587
890-5660-11	BH23 - 05	4'	Total/NA	Solid	8021B	67587
MB 880-67587/5-A	Method Blank		Total/NA	Solid	8021B	67587
MB 880-67694/5-A	Method Blank		Total/NA	Solid	8021B	67694
LCS 880-67587/1-A	Lab Control Sample		Total/NA	Solid	8021B	67587
LCSD 880-67587/2-A	Lab Control Sample Dup		Total/NA	Solid	8021B	67587
890-5652-A-1-C MS	Matrix Spike		Total/NA	Solid	8021B	67587
890-5652-A-1-D MSD	Matrix Spike Duplicate		Total/NA	Solid	8021B	67587

Prep Batch: 67694

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
MB 880-67694/5-A	Method Blank		Total/NA	Solid	5035	

Analysis Batch: 67873

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Total/NA	Solid	Total BTEX	
890-5660-2	BH23 - 01	2'	Total/NA	Solid	Total BTEX	
890-5660-3	BH23 - 02	0'	Total/NA	Solid	Total BTEX	
890-5660-4	BH23 - 02	2'	Total/NA	Solid	Total BTEX	
890-5660-5	BH23 - 03	0'	Total/NA	Solid	Total BTEX	
890-5660-6	BH23 - 03	2'	Total/NA	Solid	Total BTEX	
890-5660-7	BH23 - 04	0'	Total/NA	Solid	Total BTEX	
890-5660-8	BH23 - 04	2'	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

GC VOA (Continued)

Analysis Batch: 67873 (Continued)

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-9	BH23 - 05	0'	Total/NA	Solid	Total BTEX	
890-5660-10	BH23 - 05	2'	Total/NA	Solid	Total BTEX	
890-5660-11	BH23 - 05	4'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 67682

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Total/NA	Solid	8015B NM	67700
890-5660-2	BH23 - 01	2'	Total/NA	Solid	8015B NM	67700
890-5660-3	BH23 - 02	0'	Total/NA	Solid	8015B NM	67700
890-5660-4	BH23 - 02	2'	Total/NA	Solid	8015B NM	67700
890-5660-5	BH23 - 03	0'	Total/NA	Solid	8015B NM	67700
890-5660-6	BH23 - 03	2'	Total/NA	Solid	8015B NM	67700
890-5660-7	BH23 - 04	0'	Total/NA	Solid	8015B NM	67700
890-5660-8	BH23 - 04	2'	Total/NA	Solid	8015B NM	67700
890-5660-9	BH23 - 05	0'	Total/NA	Solid	8015B NM	67700
890-5660-10	BH23 - 05	2'	Total/NA	Solid	8015B NM	67700
890-5660-11	BH23 - 05	4'	Total/NA	Solid	8015B NM	67700
MB 880-67700/1-A	Method Blank		Total/NA	Solid	8015B NM	67700
LCS 880-67700/2-A	Lab Control Sample		Total/NA	Solid	8015B NM	67700
LCSD 880-67700/3-A	Lab Control Sample Dup		Total/NA	Solid	8015B NM	67700
890-5655-A-1-D MS	Matrix Spike		Total/NA	Solid	8015B NM	67700
890-5655-A-1-E MSD	Matrix Spike Duplicate		Total/NA	Solid	8015B NM	67700

Prep Batch: 67700

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Total/NA	Solid	8015NM Prep	
890-5660-2	BH23 - 01	2'	Total/NA	Solid	8015NM Prep	
890-5660-3	BH23 - 02	0'	Total/NA	Solid	8015NM Prep	
890-5660-4	BH23 - 02	2'	Total/NA	Solid	8015NM Prep	
890-5660-5	BH23 - 03	0'	Total/NA	Solid	8015NM Prep	
890-5660-6	BH23 - 03	2'	Total/NA	Solid	8015NM Prep	
890-5660-7	BH23 - 04	0'	Total/NA	Solid	8015NM Prep	
890-5660-8	BH23 - 04	2'	Total/NA	Solid	8015NM Prep	
890-5660-9	BH23 - 05	0'	Total/NA	Solid	8015NM Prep	
890-5660-10	BH23 - 05	2'	Total/NA	Solid	8015NM Prep	
890-5660-11	BH23 - 05	4'	Total/NA	Solid	8015NM Prep	
MB 880-67700/1-A	Method Blank		Total/NA	Solid	8015NM Prep	
LCS 880-67700/2-A	Lab Control Sample		Total/NA	Solid	8015NM Prep	
LCSD 880-67700/3-A	Lab Control Sample Dup		Total/NA	Solid	8015NM Prep	
890-5655-A-1-D MS	Matrix Spike		Total/NA	Solid	8015NM Prep	
890-5655-A-1-E MSD	Matrix Spike Duplicate		Total/NA	Solid	8015NM Prep	

Analysis Batch: 67834

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Total/NA	Solid	8015 NM	
890-5660-2	BH23 - 01	2'	Total/NA	Solid	8015 NM	
890-5660-3	BH23 - 02	0'	Total/NA	Solid	8015 NM	
890-5660-4	BH23 - 02	2'	Total/NA	Solid	8015 NM	
890-5660-5	BH23 - 03	0'	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

GC Semi VOA (Continued)

Analysis Batch: 67834 (Continued)

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-6	BH23 - 03	2'	Total/NA	Solid	8015 NM	
890-5660-7	BH23 - 04	0'	Total/NA	Solid	8015 NM	
890-5660-8	BH23 - 04	2'	Total/NA	Solid	8015 NM	
890-5660-9	BH23 - 05	0'	Total/NA	Solid	8015 NM	
890-5660-10	BH23 - 05	2'	Total/NA	Solid	8015 NM	
890-5660-11	BH23 - 05	4'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 67456

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Soluble	Solid	DI Leach	
890-5660-2	BH23 - 01	2'	Soluble	Solid	DI Leach	
890-5660-3	BH23 - 02	0'	Soluble	Solid	DI Leach	
890-5660-4	BH23 - 02	2'	Soluble	Solid	DI Leach	
890-5660-5	BH23 - 03	0'	Soluble	Solid	DI Leach	
890-5660-6	BH23 - 03	2'	Soluble	Solid	DI Leach	
890-5660-7	BH23 - 04	0'	Soluble	Solid	DI Leach	
890-5660-8	BH23 - 04	2'	Soluble	Solid	DI Leach	
890-5660-9	BH23 - 05	0'	Soluble	Solid	DI Leach	
890-5660-10	BH23 - 05	2'	Soluble	Solid	DI Leach	
890-5660-11	BH23 - 05	4'	Soluble	Solid	DI Leach	
MB 880-67456/1-A	Method Blank		Soluble	Solid	DI Leach	
LCS 880-67456/2-A	Lab Control Sample		Soluble	Solid	DI Leach	
LCSD 880-67456/3-A	Lab Control Sample Dup		Soluble	Solid	DI Leach	
890-5660-3 MS	BH23 - 02	0'	Soluble	Solid	DI Leach	
890-5660-3 MSD	BH23 - 02	0'	Soluble	Solid	DI Leach	

Analysis Batch: 67658

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5660-1	BH23 - 01	0'	Soluble	Solid	300.0	67456
890-5660-2	BH23 - 01	2'	Soluble	Solid	300.0	67456
890-5660-3	BH23 - 02	0'	Soluble	Solid	300.0	67456
890-5660-4	BH23 - 02	2'	Soluble	Solid	300.0	67456
890-5660-5	BH23 - 03	0'	Soluble	Solid	300.0	67456
890-5660-6	BH23 - 03	2'	Soluble	Solid	300.0	67456
890-5660-7	BH23 - 04	0'	Soluble	Solid	300.0	67456
890-5660-8	BH23 - 04	2'	Soluble	Solid	300.0	67456
890-5660-9	BH23 - 05	0'	Soluble	Solid	300.0	67456
890-5660-10	BH23 - 05	2'	Soluble	Solid	300.0	67456
890-5660-11	BH23 - 05	4'	Soluble	Solid	300.0	67456
MB 880-67456/1-A	Method Blank		Soluble	Solid	300.0	67456
LCS 880-67456/2-A	Lab Control Sample		Soluble	Solid	300.0	67456
LCSD 880-67456/3-A	Lab Control Sample Dup		Soluble	Solid	300.0	67456
890-5660-3 MS	BH23 - 02	0'	Soluble	Solid	300.0	67456
890-5660-3 MSD	BH23 - 02	0'	Soluble	Solid	300.0	67456

Lab Chronicle

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 01 0'

Lab Sample ID: 890-5660-1
Matrix: Solid
Date Collected: 11/16/23 11:00
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 06:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 06:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 13:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 13:24	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 00:36	CH	EET MID

Client Sample ID: BH23 - 01 2'

Lab Sample ID: 890-5660-2
Matrix: Solid
Date Collected: 11/16/23 11:05
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 08:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 08:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 13:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 13:46	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 00:41	CH	EET MID

Client Sample ID: BH23 - 02 0'

Lab Sample ID: 890-5660-3
Matrix: Solid
Date Collected: 11/16/23 11:10
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 08:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 08:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 14:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 14:08	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 00:47	CH	EET MID

Client Sample ID: BH23 - 02 2'

Lab Sample ID: 890-5660-4
Matrix: Solid
Date Collected: 11/16/23 11:15
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 08:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 08:54	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 02 2'

Lab Sample ID: 890-5660-4
Matrix: Solid
Date Collected: 11/16/23 11:15
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			67834	11/27/23 14:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 14:30	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:04	CH	EET MID

Client Sample ID: BH23 - 03 0'

Lab Sample ID: 890-5660-5
Matrix: Solid
Date Collected: 11/16/23 11:20
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 09:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 09:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 14:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 14:52	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:09	CH	EET MID

Client Sample ID: BH23 - 03 2'

Lab Sample ID: 890-5660-6
Matrix: Solid
Date Collected: 11/16/23 11:25
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 09:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 09:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 15:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 15:35	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:26	CH	EET MID

Client Sample ID: BH23 - 04 0'

Lab Sample ID: 890-5660-7
Matrix: Solid
Date Collected: 11/16/23 11:30
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 10:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 10:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 15:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 15:58	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 04 0'

Lab Sample ID: 890-5660-7
Matrix: Solid
Date Collected: 11/16/23 11:30
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:32	CH	EET MID

Client Sample ID: BH23 - 04 2'

Lab Sample ID: 890-5660-8
Matrix: Solid
Date Collected: 11/16/23 11:35
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 10:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 10:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 16:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 16:19	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:38	CH	EET MID

Client Sample ID: BH23 - 05 0'

Lab Sample ID: 890-5660-9
Matrix: Solid
Date Collected: 11/16/23 11:40
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 11:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 11:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 16:42	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 16:42	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:43	CH	EET MID

Client Sample ID: BH23 - 05 2'

Lab Sample ID: 890-5660-10
Matrix: Solid
Date Collected: 11/16/23 11:45
Date Received: 11/17/23 12:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 11:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 11:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 17:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 17:04	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:49	CH	EET MID

Lab Chronicle

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Client Sample ID: BH23 - 05 4'
Date Collected: 11/16/23 11:50
Date Received: 11/17/23 12:41

Lab Sample ID: 890-5660-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	67587	11/21/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67689	11/28/23 11:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67873	11/28/23 11:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			67834	11/27/23 17:28	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	67700	11/27/23 09:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67682	11/27/23 17:28	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	67456	11/20/23 15:18	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67658	11/23/23 01:55	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Vertex
Project/Site: MUY WAYNO

Job ID: 890-5660-1
SDG: 23E-05486

Lab Sample ID	Client Sample ID		Matrix	Collected	Received
890-5660-1	BH23 - 01	0'	Solid	11/16/23 11:00	11/17/23 12:41
890-5660-2	BH23 - 01	2'	Solid	11/16/23 11:05	11/17/23 12:41
890-5660-3	BH23 - 02	0'	Solid	11/16/23 11:10	11/17/23 12:41
890-5660-4	BH23 - 02	2'	Solid	11/16/23 11:15	11/17/23 12:41
890-5660-5	BH23 - 03	0'	Solid	11/16/23 11:20	11/17/23 12:41
890-5660-6	BH23 - 03	2'	Solid	11/16/23 11:25	11/17/23 12:41
890-5660-7	BH23 - 04	0'	Solid	11/16/23 11:30	11/17/23 12:41
890-5660-8	BH23 - 04	2'	Solid	11/16/23 11:35	11/17/23 12:41
890-5660-9	BH23 - 05	0'	Solid	11/16/23 11:40	11/17/23 12:41
890-5660-10	BH23 - 05	2'	Solid	11/16/23 11:45	11/17/23 12:41
890-5660-11	BH23 - 05	4'	Solid	11/16/23 11:50	11/17/23 12:41

eurofins | Environment Testing Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Chance Dixon	Bill to: (if different)	Garret Green
Company Name:	Vertex	Company Name:	XTO
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:	cdixon@vertex.ca	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	May Wayne	Turn Around	
Project Number:	23E-05486	☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Hunter Klein	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes / No	Wet Ice:	Yes / No	
Samples Received Intact:	Yes / No	Thermometer ID:	TWM007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	-0.4	
Total Containers:		Corrected Temperature:	-0.2	

ANALYSIS REQUEST

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

890-5660 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters: BTEX	TPH	Cl	Sample Comments
BH23-01 0'	Soi	11/16/23	11:00		1					
BH23-01 2'			11:05							
BH23-02 0'			11:10							
BH23-02 2'			11:15							
BH23-03 0'			11:20							
BH23-03 2'			11:25							
BH23-04 0'			11:30							
BH23-04 2'			11:35							
BH23-05 0'			11:40							
BH23-05 2'			11:45							
BH23-05 4'			11:50							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Hunter Klein		11/17	2 1241		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-1831 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-5660-1
Address: 1211 W Florida Ave	Due Date Requested: 11/27/2023			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: MUY WAYNO	Project #: 89000161			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K - EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S - H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
BH23 - 01 0' (890-5660-1)	11/16/23	11 00 Mountain		Solid			X	X	X	X	X	1	
BH23 - 01 2' (890-5660-2)	11/16/23	11 05 Mountain		Solid			X	X	X	X	X	1	
BH23 - 02 0' (890-5660-3)	11/16/23	11 10 Mountain		Solid			X	X	X	X	X	1	
BH23 - 02 2' (890-5660-4)	11/16/23	11 15 Mountain		Solid			X	X	X	X	X	1	
BH23 - 03 0' (890-5660-5)	11/16/23	11 20 Mountain		Solid			X	X	X	X	X	1	
BH23 - 03 2' (890-5660-6)	11/16/23	11 25 Mountain		Solid			X	X	X	X	X	1	
BH23 - 04 0' (890-5660-7)	11/16/23	11 30 Mountain		Solid			X	X	X	X	X	1	
BH23 - 04 2' (890-5660-8)	11/16/23	11 35 Mountain		Solid			X	X	X	X	X	1	
BH23 - 05 0' (890-5660-9)	11/16/23	11 40 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No. 890-1831 2
Client Contact: Shipping/Receiving	Phone	E-Mail Jessica Kramer@et.eurofinsus com	State of Origin New Mexico	Page: Page 2 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note) NELAP - Texas		Job #: 890-5660-1
Address: 1211 W Florida Ave ,	Due Date Requested 11/27/2023			
City: Midland	TAT Requested (days)			
State Zip: TX, 79701	PO #:			
Phone 432-704-5440(Tel)	WO #:			
Email				
Project Name MUY WAYNO	Project #: 89000161			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I Ice, J DI Water, K - EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH23 - 05 2' (890-5660-10)	11/16/23	11 45 Mountain		Solid			X	X	X	X	X	1	
BH23 - 05 4' (890-5660-11)	11/16/23	11 50 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-5660-1
SDG Number: 23E-05486

Login Number: 5660
List Number: 1
Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-5660-1
SDG Number: 23E-05486

Login Number: 5660
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 11/20/23 10:41 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 292838

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 292838
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2326841759**
Incident Name	**NAPP2326841759 MUY WAYNO 18 CTB @ 0**
Incident Type	**Fire**
Incident Status	**Remediation Closure Report Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MUY WAYNO 18 CTB
Date Release Discovered	09/11/2023
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Fire
Did this release result in a fire or is the result of a fire	Yes
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	
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.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	*Not answered.*
Condensate Released (bbls) Details	Cause: Equipment Failure | Pump | Condensate | Released: 0 BBL | Recovered: 0 BBL | Lost: 0 BBL.
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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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 292838
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**More info needed to determine if this will be treated as 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:** **(2) an unauthorized release of a volume that:** **(a) results in a fire or is the result of a fire.**
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.	

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	*Not answered.*
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: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 12/08/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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811 S. First St., Artesia, NM 88210
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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 (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 292838
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
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	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (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	Between ½ and 1 (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
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.	
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)	126
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
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	11/16/2023
On what date will (or did) the final sampling or liner inspection occur	11/16/2023
On what date will (or was) the remediation complete(d)	11/16/2023
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	0
What is the estimated volume (in cubic yards) that will be remediated	0
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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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 292838
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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.)	*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)	Yes
Other Non-listed Remedial Process. Please specify	It was determined that no remnant impacts exceeding NMOCD's strictest closure criteria remained in the release area and no remedial activities were required. The DFR associated with the site inspection and photo evidence of the release area are included in Appendix C.
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: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 12/08/2023

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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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 292838
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
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.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 292838
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**292843**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**11/16/2023**
What was the (estimated) number of samples that were to be gathered	**11**
What was the sampling surface area in square feet	**333**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	It was determined that no remnant impacts exceeding NMOCD's strictest closure criteria remained in the release area and no remedial activities were required.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 12/08/2023

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 292838
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 292838

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	5380
	Action Number: 292838
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CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Closure Report is Approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	12/14/2023