

<b>Location:</b>	<b>Brushy Draw 30-31 Fed Battery</b>	
<b>Spill Date:</b>	<b>11/10/2024</b>	
<b>Area 1</b>		
Approximate Area =	17500.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.26	
<b>VOLUME OF LEAK</b>		
Total Crude Oil =	27.00	bbls
Total Produced Water =	108.00	bbls
<b>TOTAL VOLUME OF LEAK</b>		
Total Crude Oil =	27.00	bbls
Total Produced Water =	108.00	bbls
<b>TOTAL VOLUME RECOVERED</b>		
Total Crude Oil =	1.50	bbls
Total Produced Water =	1.50	bbls



Incident Number: NAPP2431846528

## Incident Closure

### Brushy Draw 30 – 31 Federal Battery

Section 31, Township 25 South, Range 30 East

Facility ID: fAPP2207332396

Latitude & Longitude: 32.09137, -103.91807

County: Eddy

Vertex File Number: 24E-04918

#### Prepared for:

ExxonMobil Upstream Company

#### Prepared by:

Vertex Resource Services Inc.

#### Date:

March 2025

**ExxonMobil Upstream Company**  
Brushy Draw 30 – 31 Federal Battery

**Incident Closure**  
March 2025

**Incident Closure**  
**Brushy Draw 30 – 31 Federal Battery**  
**Section 31, Township 25 South, Range 30 East**  
**Facility ID: fAPP2207332396**  
**Latitude & Longitude: 32.09137, -103.91807**  
**County: Eddy**

Prepared for:

**ExxonMobil Upstream Company**  
3104 East Greene Street  
Carlsbad, New Mexico 88220

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Chad Hensley, B. Sc. GCNR  
SENIOR PROJECT MANAGER, REPORT REVIEW

3/6/2025

Date

ExxonMobil Upstream Company  
Brushy Draw 30 – 31 Federal Battery

Incident Closure  
March 2025

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## 1.0 Introduction

ExxonMobil Upstream Company (Exxon) retained Vertex Resource Services Inc. (Vertex) to conduct an Incident Closure for a crude oil and produced water release that occurred on November 10, 2024, at Brushy Draw 30 -31 Federal Battery facility ID fAPP2207332396 (hereafter referred to as the “site”). Exxon submitted an initial C-141 Release Notification to New Mexico Oil Conservation Division (NMOCD) on November 25, 2024. Incident ID number NAPP2431846528 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 November 10, 2024, due to corrosion. The incident was reported on November 13, 2024, and involved the release of approximately 27 barrels (bbl.) of crude oil and approximately 108 (bbl.) of produced water both on the pad site and off the pad site. Approximately 4 bbl. of free fluid was removed during initial clean-up. Additional details relevant to the release are presented in the C-141 Report.

## 3.0 Site Characteristics

The site is located approximately 29 miles southeast of Carlsbad, New Mexico (Google Inc. 2025). The legal location for the site is Section 31, Township 25 South and Range 30 East in Eddy County, New Mexico. The release area is located on Bureau of Land Management property. An aerial photograph and site schematic are presented on Figure 1.

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 and in proximity to the constructed pad (Figure 1).

*The Geological Map of New Mexico* (New Mexico Bureau of Geology and Mineral Resources, 2025) indicates the site’s surface geology primarily comprises Qep - Eolian and piedmont deposits (New Mexico Bureau of Geology and Mineral Resources, 2025). The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018). The surrounding landscape is associated with plains and fan piedmonts with elevations ranging between 2,000 and 5,700 feet. The climate is semiarid with average annual precipitation ranging between 5 and 15 inches. Predominant soil textures around the site are well-drained fine sands and fine sandy loams with low runoff potential (United States Department of Agriculture, Natural Resources Conservation Service, 2025). Using information from the United States Department of Agriculture, the dominant vegetation was determined to be grasses interspersed with shrubs and half-shrubs (United States Department of Agriculture, Natural Resources Conservation Service, 2025). Limited to no vegetation is allowed to grow on the compacted facility pad

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#### **4.0 Closure Criteria Determination**

The nearest active well to the site is an industrial and prospecting development well 1.95 miles to the south. 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 located approximately 722 feet northwest of the site (United States Fish and Wildlife Service, 2025). 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

The nearest depth to groundwater reference to the site is an exploratory well advanced 1.57 miles to the east on January 17, 2015. Depth to groundwater at the well was 277 feet below ground surface (bgs; New Mexico Office of the State Engineer, 2025b). Information pertaining to the depth to ground water determination is included in Appendix A.

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<b>Table 1. Closure Criteria Determination</b>			
<b>Site Name: Brushy Draw 30-31 Federal Battery</b>			
<b>Release Coordinates: 32.091537,-103.918753</b>		<b>X: 602031</b>	<b>Y: 3551093</b>
<b>Site Specific Conditions</b>		<b>Value</b>	<b>Unit</b>
1	Depth to Groundwater (nearest reference)	100-500 ft	
	Distance between release and nearest DTGW reference	1 - 5 mi	
	Date of nearest DTGW reference measurement	January 17, 2015	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	500 - 1000 ft	
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	1 - 5 mi	
4	Within 300 feet from an occupied residence, school, hospital, institution or church	5mi <	
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or	1 - 5 mi	
	ii) Within 1000 feet of any fresh water well or spring	1 - 5 mi	
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	1 - 5 mi	
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	5mi <	
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	1 - 5 mi	
10	Within a 100-year Floodplain	>500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	500 - 1000 ft	
11	Soil Type	Fine sand, sandy clay loam	
12	Ecological Classification	Loamy sand	
13	Geology	Eolian and peidmont deposits	
	<b>NMAC 19.15.29.12 E (Table 1) Closure Criteria</b>	<50'	<50' 51-100' >100'

The depth to groundwater reference exceeded 0.5 miles from the release area; therefore, the closure criteria for remediation and reclamation of the site was determined to be associated with the strictest 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
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – total dissolved solids  
TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics  
BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

An initial site inspection of the release area was completed on November 25, 2024, which identified the area of the release specified in the initial C-141 Report. The impacted area was determined to be approximately 10,838 squarefeet. The Daily Field Report (DFR) associated with the site inspection is included in Appendix B.

Remediation efforts began on January 22, 2025, and were finalized on February 21, 2025. Vertex personnel supervised the excavation of impacted soils. Soils were removed to a depth of 6 inches to 6 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility as stipulated by the Form C-138 Request for Approval to Accept Solid Waste. Field screening results and DFRs documenting various phases of the remediation are presented in Appendix B.

Notification that confirmatory samples were being collected was provided to the NMOCD on February 13, 2025. Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of 102 samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Cardinal Labs under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix C. All confirmatory samples collected and analyzed were below closure criteria for the site.

6.0 Closure Request

The release area was fully delineated, remediated, and backfilled with local soil by March 3, 2025. Confirmatory 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 location “under 50 feet to groundwater”. Based on these findings, Exxon requests that this release be closed.

**ExxonMobil Upstream Company**  
Brushy Draw 30 – 31 Federal Battery

**Incident Closure**  
March 2025

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Should you have any questions or concerns, please do not hesitate to contact Chad Hensley at 575-200-6167 or [Chensley@vertexresource.com](mailto:Chensley@vertexresource.com).

## 7.0 References

- Google Inc. (2025). *Google Earth Pro (Version 7.3.3)* [Software]. Retrieved from <https://earth.google.com>
- New Mexico Bureau of Geology and Mineral Resources. (2025). *Interactive Geologic Map*. Retrieved from <https://maps.nmt.edu/>
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- United States Geological Survey. (2025). *National Water Information System: Web Interface*. Retrieved from <https://waterdata.usgs.gov/nwis>
- United States Fish and Wildlife Service. (2025). *National Wetland Inventory - Surface Waters and Wetlands*. Retrieved from <https://fwspprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>

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Brushy Draw 30 – 31 Federal Battery

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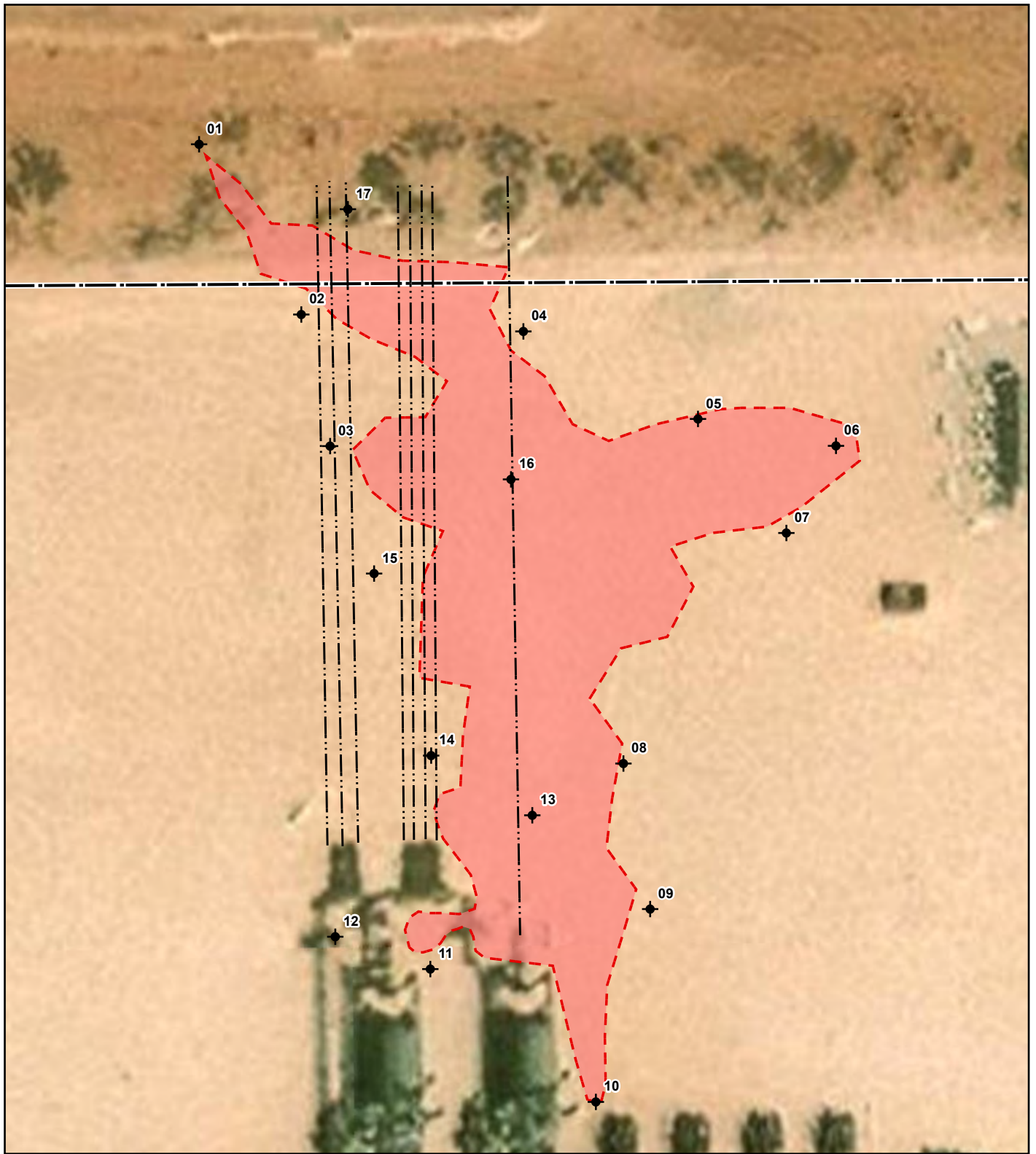
## 8.0 Limitations

This report has been prepared for the sole benefit of ExxonMobil Upstream Company. 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 ExxonMobil Upstream Company. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

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



## **FIGURES**



◆ Borehole (Prefixed by "BH24-")    - - - Pipeline (Underground)    [Red Dashed Box] Release Area (~10,838 sq.ft.)    [Thick Black Line] Approximate Lease Boundary



0 5 10 20 ft

NAD 1983 UTM Zone 13N  
Date: Dec 12/24

Map Center:  
Lat: 32.092135°N,  
Long: 103.918843°W



### Characterization Sampling Site Schematic Brushy Draw 30-31 Federal Battery

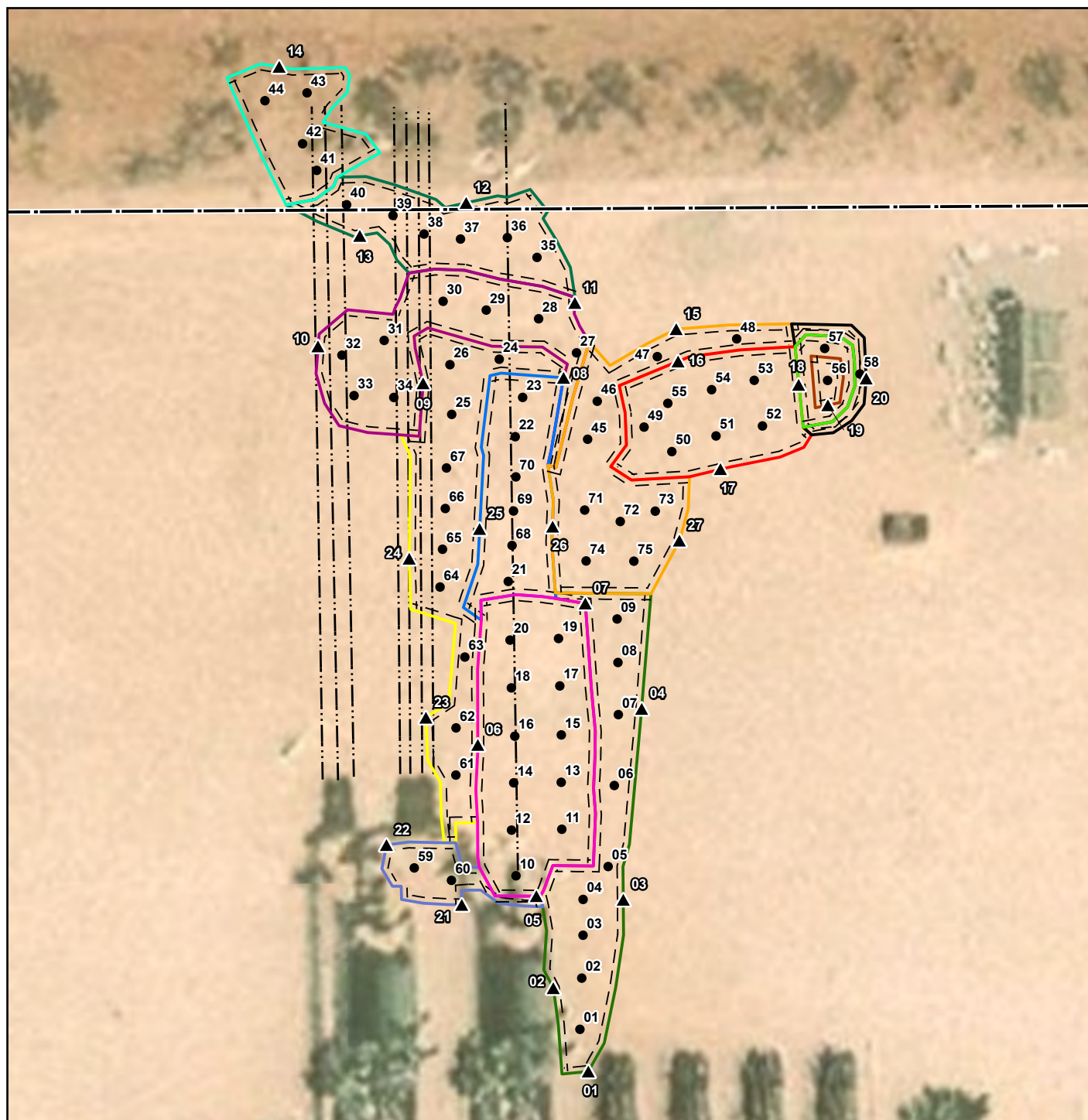
FIGURE:  
**1**



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: Georeferenced image from Esri, 2024. Approximate lease boundary from imagery by Vertex Professional Services Ltd. (VPS), 2024. Site features from GPS by VPS, 2024.

VERSATILITY. EXPERTISE.



- |                                     |  |  |
|-------------------------------------|--|--|
| ● Base Sample (Prefixed by "BS25-") | — Approximate Lease Boundary                         | North Excavation to 4' bgs (~199 sq.ft.   66 ft.)      |
| ▲ Wall Sample (Prefixed by "WS25-") | East Excavation to 1.5' bgs (~148 sq.ft.   107 ft.)  | Pasture Excavation to 1.5' bgs (~794 sq.ft.   128 ft.) |
| --- Pipeline (Underground)          | East Excavation to 1' bgs (~1,269 sq.ft.   146 ft.)  | South Excavation to 3' bgs (~338 sq.ft.   108 ft.)     |
|                                     | East Excavation to 2' bgs (~1,633 sq.ft.   274 ft.)  | South Excavation to 4' bgs (~1,681 sq.ft.   293 ft.)   |
|                                     | Excavation to 5' bgs (~87 sq.ft.   38 ft.)           | West Excavation to 1.5' bgs (~1,521 sq.ft.   260 ft.)  |
|                                     | Excavation to 6' bgs (~2,065 sq.ft.   199 ft.)       | West Excavation to 1' bgs (~1,102 sq.ft.   179 ft.)    |
|                                     | North Excavation to 3' bgs (~1,048 sq.ft.   164 ft.) | West Excavation to 2' bgs (~1,839 sq.ft.   339 ft.)    |



0 15 30 ft Map Center:  
 Lat: 32.092096°N  
 NAD 1983 UTM Zone 13N Long: 103.918814°W  
 Date: Feb 27/25



### Confirmatory Sampling Site Schematic Brushy Draw 30-31 Fed Battery

FIGURE:  
 2



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: Georeferenced image from Esri, 2024. Approximate lease boundary from imagery by Vertex Professional Services Ltd. (VPS), 2024. Site features from GPS by VPS, 2025.

VERSATILITY. EXPERTISE.

## **TABLES**

Client Name: ExxonMobil Upstream Company  
 Site Name: Brushy Draw 30-31 Federal Battery  
 NMOCD Tracking #: nAPP2431846528  
 Project #: 24E-04918  
 Lab Report #: H247231

Table 3. Initial Characterization Sample Laboratory Results															
Sample Description			Petroleum Hydrocarbons							Inorganic					
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable										
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)						
											(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
										Depth to Groundwater <50					
BH24-01	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	96					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
BH24-02	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	192					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
BH24-03	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16					
BH24-04	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	144					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	64					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	112					
BH24-05	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	4640					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	304					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	128					
BH24-06	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	112					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	80					
	4R	November 22, 2024	ND	ND	ND	140	36.8	140	176.8	64					
BH24-07	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	80					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16					
BH24-08	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
BH24-09	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	192					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16					
BH24-10	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	48					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	48					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
BH24-11	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	96					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
BH24-12	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	80					
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32					
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16					



Client Name: ExxonMobil Upstream Company  
 Site Name: Brushy Draw 30-31 Federal Battery  
 NMOCD Tracking #: nAPP2431846528  
 Project #: 24E-04918  
 Lab Report #: H247231

Table 3. Initial Characterization Sample Laboratory Results										
Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)				
Depth to Groundwater <50										
BH24-13	0	November 22, 2024	ND	ND	ND	1670	411	1670	2081	1230
	2	November 22, 2024	ND	ND	12.6	784	140	796.6	936.6	2280
	4R	November 22, 2024	ND	ND	26.6	500	73.8	526.6	600.4	1920
BH24-14	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	208
	2	November 22, 2024	ND	ND	ND	17.5	ND	17.5	17.5	144
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16
BH24-15	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	80
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	48
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16
BH24-16	0	November 22, 2024	ND	ND	221	3880	497	4101	4598	2520
	2	November 22, 2024	ND	ND	ND	123	11.1	123	134.1	6800
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32
BH24-17	0	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	96
	2	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	32
	4	November 22, 2024	ND	ND	ND	ND	ND	ND	ND	16

"ND" Not Detected at the Reporting Limit

R indicates Refusal

"-" indicates not analyzed/assessed

**Bold and grey shaded indicates exceedance outside of NMOCD Remediation Closure Criteria**

Client Name: ExxonMobil Upstream Company  
 Site Name: Brushy Draw 30-31 Federal Battery  
 NMOCD Tracking #: nAPP2431846528  
 Project #: 24E-04918  
 Lab Reports: H250926, H250956, H251073, H251074, and H251075

Table 4. Confirmation Sample Laboratory Results										
Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					
			Benzene  (mg/kg)	BTEX (Total)  (mg/kg)	Gasoline Range Organics (GRO)  (mg/kg)	Diesel Range Organics (DRO)  (mg/kg)	Motor Oil Range Organics (MRO)  (mg/kg)	(GRO + DRO)  (mg/kg)	Total Petroleum Hydrocarbons (TPH)  (mg/kg)	
Depth to Groundwater < 50 Feet bgs										
BS25-01	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	48
BS25-02	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-03	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-04	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-05	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-06	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	48
BS25-07	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	48
BS25-08	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-09	4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-10	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	176
BS25-11	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-12	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-13	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-14	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-15	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-16	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-17	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-18	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-19	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	48
BS25-20	6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-21	3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-22	3	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	96
BS25-23	3	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-24	2	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-25	2	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-26	2	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-27	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-28	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	48
BS25-29	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-30	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-31	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	48
BS25-32	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-33	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	112
BS25-34	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	80
BS25-35	1	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-36	1	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-37	1	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-38	1	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	32

Client Name: ExxonMobil Upstream Company  
 Site Name: Brushy Draw 30-31 Federal Battery  
 NMOCD Tracking #: nAPP2431846528  
 Project #: 24E-04918  
 Lab Reports: H250926, H250956, H251073, H251074, and H251075

Table 4. Confirmation Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
Depth to Groundwater <50 Geet bgs										
BS25-39	1	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-40	1	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-41	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-42	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-43	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-44	1.5	February 17, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-45	2	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-46	2	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
BS25-47	2	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	96
BS25-48	2	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	96
BS25-49	1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
BS25-50	1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-51	1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
BS25-52	1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	96
BS25-53	1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-54	1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-55	1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
BS25-56	5	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-57	4	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
BS25-58	1.5	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-59	3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-60	3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	96
BS25-61	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	64
BS25-62	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-63	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-64	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-65	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-66	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-67	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-68	3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-69	3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-70	3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
BS25-71	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-72	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-73	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-74	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
BS25-75	2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	64
WS25-01	0-4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16



Client Name: ExxonMobil Upstream Company  
 Site Name: Brushy Draw 30-31 Federal Battery  
 NMOCD Tracking #: nAPP2431846528  
 Project #: 24E-04918  
 Lab Reports: H250926, H250956, H251073, H251074, and H251075

Table 4. Confirmation Sample Laboratory Results										
Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
Depth to Groundwater <50 feet bgs										
WS25-02	0-4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	96
WS25-03	0-4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
WS25-04	0-4	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	ND
WS25-05	3-6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	192
WS25-06	2-6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	16
WS25-07	3-6	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	32
WS25-08	1.5-3	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
WS25-09	1.5-2	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
WS25-10	0-1.5	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	112
WS25-11	0-1.5	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	48
WS25-12	0-1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	96
WS25-13	0-1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	80
WS25-14	0-1.5	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	32
WS25-15	0-2	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	48
WS25-16	1-2	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	96
WS25-17	0-1	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	224
WS25-18	1-4	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	112
WS25-19	4-5	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	64
WS25-20	0-1.5	February 16, 2025	ND	ND	ND	ND	ND	ND	ND	96
WS25-21	0-3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	96
WS25-22	0-3	February 20, 2025	ND	ND	ND	ND	ND	ND	ND	48
WS25-23	0-2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
WS25-24	0-2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
WS25-25	2-3	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
WS25-26	2-3	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16
WS25-27	0-2	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	208
BackFill	-	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	240
TopSoil	-	February 21, 2025	ND	ND	ND	ND	ND	ND	ND	16

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

**Bold and grey shaded indicates exceedance outside of NMOCD Remediation Closure Criteria**

**Bold and green shaded indicates exceedance outside of NMOCD Reclamation Closure Criteria**

## **APPENDIX A - Closure Criteria Research Documentation**

## **APPENDIX B – Daily Field and Sampling Report(s)**

## **APPENDIX C – Laboratory Data Report(s) and Chain of Custody Form(s)**



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

December 03, 2024

CHAD HENSLEY

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: BRUSHY DRAW 30-31

Enclosed are the results of analyses for samples received by the laboratory on 11/25/24 16:22.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -01 @ 0' (H247231-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/28/2024	ND	2.27	113	2.00	6.17	
Toluene*	<0.050	0.050	11/28/2024	ND	2.18	109	2.00	9.55	
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.29	114	2.00	12.8	
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.80	113	6.00	13.4	
Total BTX	<0.300	0.300	11/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/27/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -01 @ 2' (H247231-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	2.27	113	2.00	6.17		
Toluene*	<0.050	0.050	11/28/2024	ND	2.18	109	2.00	9.55		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.29	114	2.00	12.8		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.80	113	6.00	13.4		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/27/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -01 @ 4' (H247231-03)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/28/2024	ND	2.27	113	2.00	6.17	
Toluene*	<0.050	0.050	11/28/2024	ND	2.18	109	2.00	9.55	
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.29	114	2.00	12.8	
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.80	113	6.00	13.4	
Total BTEX	<0.300	0.300	11/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/27/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -02 @ 0' (H247231-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	2.27	113	2.00	6.17		
Toluene*	<0.050	0.050	11/28/2024	ND	2.18	109	2.00	9.55		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.29	114	2.00	12.8		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.80	113	6.00	13.4		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	11/27/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -02 @ 2' (H247231-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	2.27	113	2.00	6.17		
Toluene*	<0.050	0.050	11/28/2024	ND	2.18	109	2.00	9.55		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.29	114	2.00	12.8		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.80	113	6.00	13.4		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/27/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 11/25/2024  
 Reported: 12/03/2024  
 Project Name: BRUSHY DRAW 30-31  
 Project Number: 24E-04918  
 Project Location: XTO

Sampling Date: 11/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: BH24 -02 @ 4' (H247231-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	2.27	113	2.00	6.17		
Toluene*	<0.050	0.050	11/28/2024	ND	2.18	109	2.00	9.55		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.29	114	2.00	12.8		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.80	113	6.00	13.4		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/27/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -03 @ 0' (H247231-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	2.27	113	2.00	6.17		
Toluene*	<0.050	0.050	11/28/2024	ND	2.18	109	2.00	9.55		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.29	114	2.00	12.8		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.80	113	6.00	13.4		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/27/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -03 @ 2' (H247231-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -03 @ 4' (H247231-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12	
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20	
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72	
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40	
Total BTEX	<0.300	0.300	11/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -04 @ 0' (H247231-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -04 @ 2' (H247231-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 98.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -04 @ 4' (H247231-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -05 @ 0' (H247231-13)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4640	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -05 @ 2' (H247231-14)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEx	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -05 @ 4' (H247231-15)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEx	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	206	103	200	1.25	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	217	108	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -06 @ 0' (H247231-16)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEx	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -06 @ 2' (H247231-17)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEx	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 99.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 11/25/2024  
 Reported: 12/03/2024  
 Project Name: BRUSHY DRAW 30-31  
 Project Number: 24E-04918  
 Project Location: XTO

Sampling Date: 11/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: BH24 -06 @ 4' (H247231-18)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12	
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20	
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72	
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40	
Total BTEX	<0.300	0.300	11/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/02/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	140	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	36.8	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 97.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -07 @ 0' (H247231-19)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEx	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 89.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -07 @ 2' (H247231-20)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 98.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -07 @ 4' (H247231-21)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 99.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -08 @ 0' (H247231-22)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 74.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -08 @ 2' (H247231-23)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEx	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -08 @ 4' (H247231-24)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 76.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -09 @ 0' (H247231-25)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTEX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 75.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -09 @ 2' (H247231-26)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12		
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20		
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72		
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40		
Total BTX	<0.300	0.300	11/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 80.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.7 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 11/25/2024  
 Reported: 12/03/2024  
 Project Name: BRUSHY DRAW 30-31  
 Project Number: 24E-04918  
 Project Location: XTO

Sampling Date: 11/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: BH24 -09 @ 4' (H247231-27)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/28/2024	ND	1.98	99.1	2.00	5.12	
Toluene*	<0.050	0.050	11/28/2024	ND	1.94	96.8	2.00	8.20	
Ethylbenzene*	<0.050	0.050	11/28/2024	ND	2.09	104	2.00	8.72	
Total Xylenes*	<0.150	0.150	11/28/2024	ND	6.41	107	6.00	9.40	
Total BTEX	<0.300	0.300	11/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/02/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 78.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -10 @ 0' (H247231-28)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 62.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -10 @ 2' (H247231-29)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 78.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -10 @ 4' (H247231-30)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49	
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24	
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34	
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12	
Total BTEX	<0.300	0.300	11/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 78.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -11 @ 0' (H247231-31)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 73.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -11 @ 2' (H247231-32)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49	
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24	
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34	
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12	
Total BTEX	<0.300	0.300	11/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 76.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -11 @ 4' (H247231-33)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 75.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.9 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -12 @ 0' (H247231-34)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 72.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.4 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -12 @ 2' (H247231-35)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	223	112	200	4.21	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	202	101	200	6.18	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 75.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.5 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -12 @ 4' (H247231-36)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 81.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -13 @ 0' (H247231-37)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1230	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	1670	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	411	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 66.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -13 @ 2' (H247231-38)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2280	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	12.6	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	784	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	140	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 82.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.7 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -13 @ 4' (H247231-39)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/03/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	12/03/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	12/03/2024	ND	2.00	99.8	2.00	4.34	GC-NC	
Total Xylenes*	<0.150	0.150	12/03/2024	ND	5.96	99.3	6.00	4.12	GC-NC	
Total BTEX	<0.300	0.300	12/03/2024	ND					GC-NC	

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1920	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	26.6	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	500	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	73.8	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 92.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -14 @ 0' (H247231-40)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 76.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -14 @ 2' (H247231-41)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	17.5	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 75.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.5 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -14 @ 4' (H247231-42)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 78.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -15 @ 0' (H247231-43)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 71.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.7 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -15 @ 2' (H247231-44)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 78.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.0 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -15 @ 4' (H247231-45)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 75.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.5 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -16 @ 0' (H247231-46)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49	
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24	
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34	GC-NC
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12	GC-NC
Total BTEx	<0.300	0.300	11/29/2024	ND					GC-NC

Surrogate: 4-Bromofluorobenzene (PID) 144 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2520	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	221	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	3880	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	497	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 11/25/2024  
 Reported: 12/03/2024  
 Project Name: BRUSHY DRAW 30-31  
 Project Number: 24E-04918  
 Project Location: XTO

Sampling Date: 11/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: BH24 -16 @ 2' (H247231-47)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.09	105	2.00	5.49		
Toluene*	<0.050	0.050	11/29/2024	ND	1.99	99.3	2.00	5.24		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.00	99.8	2.00	4.34		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	5.96	99.3	6.00	4.12		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6800	16.0	12/03/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	123	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	11.1	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -16 @ 4' (H247231-48)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.11	105	2.00	5.57		
Toluene*	<0.050	0.050	11/29/2024	ND	2.15	108	2.00	6.58		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.08	104	2.00	7.07		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	6.53	109	6.00	6.96		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 85.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.4 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -17 @ 0' (H247231-49)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2024	ND	2.11	105	2.00	5.57		
Toluene*	<0.050	0.050	11/29/2024	ND	2.15	108	2.00	6.58		
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.08	104	2.00	7.07		
Total Xylenes*	<0.150	0.150	11/29/2024	ND	6.53	109	6.00	6.96		
Total BTEX	<0.300	0.300	11/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 81.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 11/25/2024  
 Reported: 12/03/2024  
 Project Name: BRUSHY DRAW 30-31  
 Project Number: 24E-04918  
 Project Location: XTO

Sampling Date: 11/22/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: BH24 -17 @ 2' (H247231-50)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2024	ND	2.11	105	2.00	5.57	
Toluene*	<0.050	0.050	11/29/2024	ND	2.15	108	2.00	6.58	
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.08	104	2.00	7.07	
Total Xylenes*	<0.150	0.150	11/29/2024	ND	6.53	109	6.00	6.96	
Total BTEX	<0.300	0.300	11/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 11/25/2024  
Reported: 12/03/2024  
Project Name: BRUSHY DRAW 30-31  
Project Number: 24E-04918  
Project Location: XTO

Sampling Date: 11/22/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Alyssa Parras

**Sample ID: BH24 -17 @ 4' (H247231-51)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/29/2024	ND	2.11	105	2.00	5.57	
Toluene*	<0.050	0.050	11/29/2024	ND	2.15	108	2.00	6.58	
Ethylbenzene*	<0.050	0.050	11/29/2024	ND	2.08	104	2.00	7.07	
Total Xylenes*	<0.150	0.150	11/29/2024	ND	6.53	109	6.00	6.96	
Total BTEX	<0.300	0.300	11/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/02/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	209	104	200	5.52	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	214	107	200	6.15	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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101 East Marland Hobbs, NM 88240  
575 393-2026 FAX 575 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1086

Company Name: <b>Vertex Resource</b>		BILL TO		ANALYSIS REQUEST	
Project Manager: <b>Chad Hensley</b>		P.O. #:			
Address: <b>3101 Boyd Dr</b>		Company: <b>XTO</b>			
City: <b>Carsbad</b>		State: <b>NM</b> Zip: <b>88220</b>		Attn:	
Phone #: _____		Fax #: _____		Address: <b>3104 E Greene St</b>	
Project #: <b>24E-04918</b>		Project Owner: <b>Amy Ruth</b>		City: <b>Carsbad</b>	
Project Name: <b>Brasny draw 30-31</b>		State: <b>NM</b> Zip: <b>88220</b>		Phone #: <b>575-887-7324</b>	
Project Location: <b>Brasny draw 30-31</b>		Phone #: _____		Fax #: _____	
Sample Name: <b>Riley Ploger</b>		Matrix: <input checked="" type="checkbox"/> PRESENT		SAMPLING	
Lab I.D. _____		Sample I.D. _____			
Date: <b>11.25.24</b>		Received By: <b>R. Keene</b>		Time: <b>4:22</b>	
Relinquished By: _____		Date: _____		Time: _____	
Relinquished By: _____		Date: _____		Time: _____	
Delivered By: <b>Circle One</b>		Corrected Temp: <b>1.5C</b>		Sample Condition: <b>Cool Intact</b>	
Sampler: <b>JPS, Bus, Other</b>		Corrected Temp: <b>0.0C</b>		Checked By: <b>AP</b>	
Turnaround Time: _____		Standard: <b>✓</b>		Bacteria Only: <b>✓</b>	
Thermometer ID: <b>#3 #110</b>		Cool Intact: <b>✓</b>		Observed Temp: <b>9C</b>	
Correction Factor: <b>-0.0C</b>		Yes: <b>✓</b>		Corrected Temp: <b>9C</b>	
Remarks: <b>CHensley @vertexresource.com</b>		Adt Phone #: _____			
COST code # <b>2027691371</b>		Email address: <b>R10984@vertexresource.com</b>			
Initiant # <b>11772431846528</b>					

Lab I.D.	Sample I.D.	DATE	TIME	ANALYSIS
BH24-01	01	11.22.24	10:35	Chloride
BH24-01	02	11.22.24	10:40	TPH (Gro, Dro, MRU)
BH24-01	03	11.22.24	10:45	BTEX
BH24-01	04	11.22.24	10:47	
BH24-01	05	11.22.24	10:52	
BH24-01	06	11.22.24	10:56	
BH24-01	07	11.22.24	11:03	
BH24-01	08	11.22.24	11:07	
BH24-01	09	11.22.24	11:11	
BH24-01	10	11.22.24	11:16	



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

7 OF 16

Company Name: <b>Vertex</b>		P.O. #:		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
Project Manager: <b>C. Hensley</b>		Company: <b>XTO</b>					
Address: <b>3101 Boyd dr</b>		City: <b>AgriSbud</b>		State: <b>TX</b>		Zip: <b>76001</b>	
Phone #: <b>817-251-1111</b>		Fax #: <b>817-251-1111</b>		Address: <b>3104 E Greent</b>		City: <b>AgriSbud</b>	
Project #: <b>24E-04918</b>		Project Owner: <b>Amy Ruth</b>		State: <b>Nm</b>		Zip: <b>88706</b>	
Project Name: <b>Brushy draw</b>		Project Location: <b>30-31</b>		Phone #:		Fax #:	
Sampler Name: <b>R. Plogger</b>		Matrix: <b>PRESERV</b>		SAMPLING			

Lab I.D.	Sample I.D.	DATE	TIME	CHLORIDE	TPH (Gr, Dro, Mro)	BTEX
11	BH24-04 0 2	1/22/24	11:20	X	X	X
12	04	11:28		X	X	X
13	05	11:38		X	X	X
14	05	11:34		X	X	X
15	05	11:43		X	X	X
16	06	11:49		X	X	X
17	06	11:54		X	X	X
18	06	11:59		X	X	X
19	07	12:10		X	X	X
20	07	12:15		X	X	X

Relinquished By: <b>R. Plogger</b>		Time: <b>4:24</b>		Received By: <b>APR</b>	
Relinquished By: <b>R. Plogger</b>		Time: <b>4:24</b>		Received By: <b>APR</b>	
Remarks: <b>Incident # N177243184658</b>		Remarks: <b>CO2 code # 2027691371</b>			





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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 OF 6

Company Name: <b>Vertex</b>	P.O. #:	<b>BILL TO</b>	ANALYSIS REQUEST
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Project Manager: <b>C. Hensley</b>	Company: <b>XTO</b>
------------------------------------	---------------------

Address:	City:	State:	Zip:	Attn:
----------	-------	--------	------	-------

Phone #:	Fax #:	Address: <b>3104 Greene St</b>
----------	--------	--------------------------------

Project #:	Project Owner: <b>Amy Ruth</b>	City: <b>Carlsbad</b>
------------	--------------------------------	-----------------------

Project Name: <b>Brushy draw 30-31</b>	State: <b>NM</b>	Zip: <b>88220</b>
--	------------------	-------------------

Project Location:	Phone #:
-------------------	----------

Sampler Name: <b>R. Tioyler</b>	Fax #:
---------------------------------	--------

Lab I.D.	Sample I.D.	CHLORIDE (COMP)	# CONTAINERS	GROUNDING	WATER	NO	NO	NO	NO	NO	NO	DATE	TIME	Chloride	TPH (Gro, Dro, MRO)	BTEX
<b>H247531</b>	<b>BH24-0704</b>	<b>4'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>11-22-24</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>22</b>	<b>08</b>	<b>0'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>12:22</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>23</b>	<b>08</b>	<b>2'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>12:32</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>24</b>	<b>08</b>	<b>4'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>12:36</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>25</b>	<b>09</b>	<b>0'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>12:54</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>26</b>	<b>09</b>	<b>2'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>12:59</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>27</b>	<b>09</b>	<b>4'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1:06</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>28</b>	<b>10</b>	<b>0'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1:13</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>29</b>	<b>10</b>	<b>2'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1:17</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>30</b>	<b>10</b>	<b>4'</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1:21</b>	<b>12:16</b>	<b>X</b>	<b>X</b>	<b>X</b>

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Relinquished By: <b>[Signature]</b>	Date: <b>11-25-24</b>	Received By: <b>[Signature]</b>	Date: <b>11-25-24</b>
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Relinquished By: <b>[Signature]</b>	Date: <b>11-25-24</b>	Received By: <b>[Signature]</b>	Date: <b>11-25-24</b>
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Delivered By: <b>[Signature]</b>	Corrected Temp: <b>15C</b>	Sample Condition: <b>Intact</b>	Checked By: <b>[Signature]</b>
Sampler: <b>JPS - Bus - Other</b>	Corrected Temp: <b>15C</b>	Sample Condition: <b>Intact</b>	Checked By: <b>[Signature]</b>

+ Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



4 DE 16

Page 57 of 59





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

50 kg

[illegible]



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

6 OF 6

[illegible]



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

February 19, 2025

CHAD HENSLEY

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: BRUSHY DRAW 30-31 FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/17/25 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 45 2' (H250926-01)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 94.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: BRUSHY DRAW 30-31 FEDERAL BATTERY  
Project Number: 24E-04918 ( NORTH )  
Project Location: XTO

Sampling Date: 02/16/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 46 2' (H250926-02)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93	
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338	
Total BTEx	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: BRUSHY DRAW 30-31 FEDERAL BATTERY  
Project Number: 24E-04918 ( NORTH )  
Project Location: XTO

Sampling Date: 02/16/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 47 2' (H250926-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93	
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338	
Total BTEX	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 98.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 48 2' (H250926-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 49 1' (H250926-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 97.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 50 1' (H250926-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93		
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99		
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND						

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 51 1' (H250926-07)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 96.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 52 1' (H250926-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 95.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 53 1' (H250926-09)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 99.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 54 1' (H250926-10)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	202	101	200	2.93	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	188	93.8	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 92.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 55 1' (H250926-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 56 5' (H250926-12)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93	
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338	
Total BTEX	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 57 4' (H250926-13)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.09	105	2.00	2.93		
Toluene*	<0.050	0.050	02/17/2025	ND	2.14	107	2.00	0.346		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.16	108	2.00	0.00998		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	0.338		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81		
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8		
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND						

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 58 1.5' (H250926-14)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 99.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 08 1.5-3' (H250926-15)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 09 1.5-2' (H250926-16)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 90.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 10 0-1.5' (H250926-17)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89	
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84	
Total BTEX	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/18/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 11 0-1.5' (H250926-18)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 12 0-1' (H250926-19)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89	
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84	
Total BTEX	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 93.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: BRUSHY DRAW 30-31 FEDERAL  
Project Number: BATTERY 24E-04918 ( NORTH )  
Project Location: XTO

Sampling Date: 02/16/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: WS 25 - 13 0-1' (H250926-20)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89	
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84	
Total BTEX	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 88.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 14 0-1.5' (H250926-21)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEx	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 86.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 15 0-2' (H250926-22)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 79.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.3 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 16 1-2' (H250926-23)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89	
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84	
Total BTEX	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 89.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.3 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 17 0-1' (H250926-24)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	02/18/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 85.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: BRUSHY DRAW 30-31 FEDERAL BATTERY  
Project Number: 24E-04918 ( NORTH )  
Project Location: XTO

Sampling Date: 02/16/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: WS 25 - 18 1-4' (H250926-25)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	02/18/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 96.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 19 4-5' (H250926-26)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89	
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30	
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79	
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84	
Total BTEX	<0.300	0.300	02/17/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/18/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/17/2025	Sampling Date:	02/16/2025
Reported:	02/19/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: WS 25 - 20 0-1.5' (H250926-27)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	2.20	110	2.00	1.89		
Toluene*	<0.050	0.050	02/17/2025	ND	2.28	114	2.00	2.30		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.24	112	2.00	2.79		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.61	110	6.00	2.84		
Total BTEx	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/18/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	190	94.8	200	8.81	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	171	85.4	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 88.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

48-hour Rush

Company Name: Vertex Resource Services (Direct Bill to XTO Energy, Inc.)

BILL TO

ANALYSIS REQUEST

Project Manager: Chad Hensley

P.O. #:

Address: 3101 Boyd Drive

Company: XTO Energy, Inc.

City: Carlsbad State: NM

Attn: Colton Brown

Phone #: 575.725.5001

Address: 3104 E. Greene St

Project #: 25E-00017

City: Carlsbad

Project Name: Brushy Draw 30-31 Federal Battery - North

State: NM Zip: 88220

Project Location:

Phone #: 575-988-2390

Sampler Name: L. Pullman

Fax #:

Lab I.D.

Fax #:

Sample I.D.

Sample I.D.		(G)RAB OR (C)OMP	# CONTAINERS	MATRIX					DATE	TIME	BTEx (8021)					TPH:8015D(GRO / DRO / MRO)					Chloride				
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE																	
1	BS25-45 2'		C 1	X						02.16.25	10:50	X	X	X											
2	BS25-46 2'		C 1	X						02.16.25	10:45	X	X	X											
3	BS25-47 2'		C 1	X						02.16.25	10:40	X	X	X											
4	BS25-48 2'		C 1	X						02.16.25	10:35	X	X	X											
5	BS25-49 1'		C 1	X						02.16.25	10:30	X	X	X											
6	BS25-50 1'		C 1	X						02.16.25	10:20	X	X	X											
7	BS25-51 1'		C 1	X						02.16.25	10:15	X	X	X											
8	BS25-52 1'		C 1	X						02.16.25	10:05	X	X	X											
9	BS25-53 1'		C 1	X						02.16.25	10:00	X	X	X											
10	BS25-54 1'		C 1	X						02.16.25	10:10	X	X	X											

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Relinquished By:

Date: 2-17-25

Received By:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

Time: 04:30

Date: 2-20

Received By:

Please Email Results:

Add'l Phone #:

Relinquished By:

Date: 2-20

Received By:

Please Email Results:

Add'l Phone #:

Delivered By: (Circle One)  
Sampler - UPS - Bus - Other:

Observed Temp. °C  
Corrected Temp. °C

Sample Condition  
Cool / Intact  
☒ Yes ☐ No

CHECKED BY:  
(Initials)

Thermometer ID  
Correction Factor

Standard ☐ Bacteria (only) Sample Condition  
Observed Temp. °C

Yes ☐ No ☐ Yes ☐ No ☐ Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

48-hour Rush

Company Name: Vertex Resource Services (Direct Bill to XTO Energy, Inc.)

BILL TO

ANALYSIS REQUEST

Project Manager: Chad Hensley

P.O. #:

Address: 3101 Boyd Drive

Company: XTO Energy, Inc.

City: Carlsbad State: NM

Zip: 88220

Attn: Colton Brown

Phone #: 575.725.5001

Fax #:

Address: 3104 E. Greene St

Project #: 25E-00017

Project Owner: Colton Brown

City: Carlsbad

Project Name: Brushy Draw 30-31 Federal Battery - North

State: NM Zip: 88220

Project Location:

Phone #: 575-988-2390

Sample Name: L. Pullman

Fax #:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						DATE	TIME	BTEx (8021)			TPH:8015D(GRO / DRO / MRO)			Chloride		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :											
11	BS25-55 1'	C 1		X						02.16.25	10:25	X	X	X						
12	BS25-56 5'	C 1		X						02.16.25	9:50	X	X	X						
13	BS25-57 4'	C 1		X						02.16.25	9:45	X	X	X						
14	BS25-58 1.5'	C 1		X						02.16.25	9:40	X	X	X						
15	WS25-08 1.5-3'	C 1		X						02.16.25	9:00	X	X	X						
16	WS25-09 1.5-2'	C 1		X						02.16.25	8:55	X	X	X						
17	WS25-10 0-1.5'	C 1		X						02.16.25	8:50	X	X	X						
18	WS25-11 0-1.5'	C 1		X						02.16.25	8:45	X	X	X						
19	WS25-12 0-1'	C 1		X						02.16.25	8:40	X	X	X						
20	WS25-13 0-1'	C 1		X						02.16.25	8:35	X	X	X						

PLEASE NOTE: Labeled and sealed containers are the property of the client. Containers must be labeled with the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In the event that Cardinal be liable for accidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>[Signature]</i>	Date: 2-17-25	Received By: <i>[Signature]</i>	Date: 02-20-25
Relinquished By: <i>[Signature]</i>	Date: 1:30	Received By: <i>[Signature]</i>	Date: 1:30

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C Corrected Temp. °C	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: (Initials)	Thermometer ID Correction Factor	Standard <input type="checkbox"/> Observed Temp. °C	Backlog (only) Sample Condition	Yes <input type="checkbox"/> No <input type="checkbox"/>	Corrected Temp. °C
	3.7 4.0		<i>[Signature]</i>	#140 +0.3°C				

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2/3



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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

48-hour flush

[illegible]





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

---

February 20, 2025

CHAD HENSLEY

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: BRUSHY DRAW 30-31 FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/18/25 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 22 3' (H250956-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 23 3' (H250956-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 24 2' (H250956-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 25 2' (H250956-04)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3	
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5	
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5	
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0	
Total BTEX	<0.300	0.300	02/19/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 94.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.8 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 26 2' (H250956-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 27 1.5' (H250956-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/19/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 96.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 28 1.5' (H250956-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 29 1.5' (H250956-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3	
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5	
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5	
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0	
Total BTEX	<0.300	0.300	02/19/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/19/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 30 1.5' (H250956-09)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 31 1.5' (H250956-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 32 1.5' (H250956-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 98.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 33 1.5' (H250956-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 96.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 02/18/2025  
Reported: 02/20/2025  
Project Name: BRUSHY DRAW 30-31 FEDERAL BATTERY  
Project Number: 24E-04918 ( NORTH )  
Project Location: XTO

Sampling Date: 02/17/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 34 1.5' (H250956-13)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 35 1' (H250956-14)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 36 1' (H250956-15)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 37 1' (H250956-16)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/19/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 98.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 38 1' (H250956-17)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3	
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5	
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5	
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0	
Total BTEX	<0.300	0.300	02/19/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/19/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 97.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 39 1' (H250956-18)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.00	99.8	2.00	13.3		
Toluene*	<0.050	0.050	02/19/2025	ND	2.27	113	2.00	14.5		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.52	126	2.00	16.5		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.72	129	6.00	18.0		
Total BTEx	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 40 1' (H250956-19)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.06	103	2.00	8.87		
Toluene*	<0.050	0.050	02/19/2025	ND	2.32	116	2.00	8.54		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.42	121	2.00	8.60		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.45	124	6.00	9.59		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	191	95.4	200	2.18	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	179	89.5	200	4.39	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 41 1.5' (H250956-20)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.06	103	2.00	8.87		
Toluene*	<0.050	0.050	02/19/2025	ND	2.32	116	2.00	8.54		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.42	121	2.00	8.60		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.45	124	6.00	9.59		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	183	91.7	200	0.260	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	183	91.7	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 42 1.5' (H250956-21)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2025	ND	2.06	103	2.00	8.87	
Toluene*	<0.050	0.050	02/19/2025	ND	2.32	116	2.00	8.54	
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.42	121	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.45	124	6.00	9.59	
Total BTEX	<0.300	0.300	02/19/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	183	91.7	200	0.260	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	183	91.7	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHAD HENSLEY  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 43 1.5' (H250956-22)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2025	ND	2.06	103	2.00	8.87	
Toluene*	<0.050	0.050	02/19/2025	ND	2.32	116	2.00	8.54	
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.42	121	2.00	8.60	
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.45	124	6.00	9.59	
Total BTEX	<0.300	0.300	02/19/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	183	91.7	200	0.260	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	183	91.7	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/18/2025	Sampling Date:	02/17/2025
Reported:	02/20/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BS 25 - 44 1.5' (H250956-23)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2025	ND	2.06	103	2.00	8.87		
Toluene*	<0.050	0.050	02/19/2025	ND	2.32	116	2.00	8.54		
Ethylbenzene*	<0.050	0.050	02/19/2025	ND	2.42	121	2.00	8.60		
Total Xylenes*	<0.150	0.150	02/19/2025	ND	7.45	124	6.00	9.59		
Total BTEX	<0.300	0.300	02/19/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2025	ND	183	91.7	200	0.260	
DRO >C10-C28*	<10.0	10.0	02/19/2025	ND	183	91.7	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	02/19/2025	ND					

Surrogate: 1-Chlorooctane 97.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

48-hour Rush

Company Name: Vertex Resource Services (Direct Bill to XTO Energy, Inc.)

BILL TO

ANALYSIS REQUEST

Project Manager: Chad Hensley

P.O. #:

Address: 3101 Boyd Drive

Company: XTO Energy, Inc.

City: Carlsbad State: NM Zip: 88220

Attn: Colton Brown

Phone #: 575.725.5001 Fax #: 575.725.5001

Address: 3104 E. Greene St

Project #: 25E-00017

Project Owner: Colton Brown

City: Carlsbad

Project Name: Brushy Draw 30-31 Federal Battery - North

State: NM Zip: 88220

Project Location:

Phone #: 575-988-2390

Sampler Name: L. Pullman

Fax #:

FOR LAB USE ONLY

PRESERV.

SAMPLING

Lab I.D.

Sample I.D.

Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						DATE	TIME	BTEx (8021)				TPH:8015D(GRO / DRO / MRO)				Chloride			
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER														
1 BS25-22 3'	C	1			X				02.17.25	9:00	X	X	X									
2 BS25-23 3'	C	1			X				02.17.25	9:05	X	X	X									
3 BS25-24 2'	C	1			X				02.17.25	9:10	X	X	X									
4 BS25-25 2'	C	1			X				02.17.25	9:15	X	X	X									
5 BS25-26 2'	C	1			X				02.17.25	9:20	X	X	X									
6 BS25-27 1.5'	C	1			X				02.17.25	9:30	X	X	X									
7 BS25-28 1.5'	C	1			X				02.17.25	9:35	X	X	X									
8 BS25-29 1.5'	C	1			X				02.17.25	9:40	X	X	X									
9 BS25-30 1.5'	C	1			X				02.17.25	9:45	X	X	X									
10 BS25-31 1.5'	C	1			X				02.17.25	9:50	X	X	X									

PLEASE NOTE: Lab and Chain of Custody labels are required for any claim arising under this contract or law. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date: 2-16-25

Received By:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

Relinquished By:

Date: 1-30-25

Received By:

REMARKS: Direct Bill to XTO Energy, Inc., Cost Center #: 2027691371, Incident #: nAPP2431846528

Delivered By: (Circle One)  
Sampler - UPS - Bus - Other:

Observed Temp. °C  
Corrected Temp. °C

Sample Condition  
Cool ☒ Intact ☒  
☐ No ☐ No

CHECKED BY:  
(Initials)

Turnaround Time: ☐ Standard ☐ Bacteria (only) Sample Condition  
Cool ☒ Intact ☒  
Thermometer ID: #1140  
Correction Factor: -0.3  
Date: 2/18/25

☐ Yes ☐ Yes  
☐ No ☐ No Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

48-hr Rush

[illegible]





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

48-hour Rush

Company Name: Vertex Resource Services (Direct Bill to XTO Energy, Inc.)

BILL TO

ANALYSIS REQUEST

Project Manager: Chad Hensley

P.O. #:

Address: 3101 Boyd Drive

Company: XTO Energy, Inc.

City: Carlsbad State: NM

Attn: Colton Brown

Phone #: 575.725.5001

Address: 3104 E. Greene St

Project #: 25E-00017

Project Owner: Colton Brown

Project Name: Brushy Draw 30-31 Federal Battery - North

State: NM Zip: 88220

Project Location:

Phone #: 575-988-2390

Sampler Name: L. Pullman

Fax #:

Lab I.D.

MATRIX

PRESERV.

SAMPLING

Sample I.D.

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER

ACID/BASE:

ICE / COOL

OTHER

DATE

TIME

BTEX (8021)

TPH:8015D(GRO / DRO / MRO)

Chloride

PLEASE NOTE: Labels and Drawings: Cardinal's labels and client's seal are required for any chain custody analysis. Labels must be attached to the container in ink, and be visible to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date: 2-16-25

Received By:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

Relinquished By:

Date: 06-20

Received By:

Please Email Results:

Chad Hensley (Chensley@vertexresource.com), Lakin Pullman (lpullman@vertexresource.com), Andrew

Relinquished By:

Date: 1350

Received By:

REMARKS: Direct Bill to XTO Energy, Inc., Cost Center #: 2027681371, Incident #: nAPP2431846528

Turnaround Time: ☐ Standard ☐ Bacteria (only) Sample Condition

Relinquished By:

Date: 1350

Received By:

Thermometer ID: 4086

Correction Factor: -0.36

Relinquished By:

Date: 1350

Received By:

Standard ☐ Observed Temp. °C

Yes ☐ No ☐

Relinquished By:

Date: 1350

Received By:

Thermometer ID: 4086

Correction Factor: -0.36

Relinquished By:

Date: 1350

Received By:

Standard ☐ Observed Temp. °C

Yes ☐ No ☐

Relinquished By:

Date: 1350

Received By:

Standard ☐ Observed Temp. °C

Yes ☐ No ☐

Relinquished By:

Date: 1350

Received By:

Standard ☐ Observed Temp. °C

Yes ☐ No ☐

FORM-006 R 3.2 10/07/21

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3/3



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February 26, 2025

CHAD HENSLEY

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: BRUSHY DRAW 30-31 FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/24/25 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTER'	Sampling Condition:	Cool & Intact
Project Number:	24E-04918, 25E-00017	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO		

**Sample ID: BACKFILL (H251073-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2025	ND	2.02	101	2.00	0.0537	
Toluene*	<0.050	0.050	02/25/2025	ND	2.04	102	2.00	5.63	
Ethylbenzene*	<0.050	0.050	02/25/2025	ND	2.10	105	2.00	9.82	
Total Xylenes*	<0.150	0.150	02/25/2025	ND	6.22	104	6.00	10.9	
Total BTEX	<0.300	0.300	02/25/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	02/25/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/24/2025	ND	189	94.7	200	3.11	
DRO >C10-C28*	<10.0	10.0	02/24/2025	ND	179	89.6	200	3.60	
EXT DRO >C28-C36	<10.0	10.0	02/24/2025	ND					

Surrogate: 1-Chlorooctane 60.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 59.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "C. D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

48-hour Rush

[illegible]



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

---

February 26, 2025

CHAD HENSLEY

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: BRUSHY DRAW 30-31 FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/24/25 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

VERTEX RESOURCE  
CHAD HENSLEY  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BRUSHY DRAW 30-31 FEDERAL BATTER'	Sampling Condition:	Cool & Intact
Project Number:	24E-04918 ( NORTH )	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO		

**Sample ID: TOP SOIL (H251074-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2025	ND	2.02	101	2.00	0.0537		
Toluene*	<0.050	0.050	02/25/2025	ND	2.04	102	2.00	5.63		
Ethylbenzene*	<0.050	0.050	02/25/2025	ND	2.10	105	2.00	9.82		
Total Xylenes*	<0.150	0.150	02/25/2025	ND	6.22	104	6.00	10.9		
Total BTEX	<0.300	0.300	02/25/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/25/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	207	103	200	0.708	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	203	101	200	0.592	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Vertex Resource Services (Direct Bill to XTO Energy, Inc.)

Project Manager: Chad Hensley

Address: 3101 Boyd Drive

City: Carlsbad State: NM

Phone #: 575.725.5001

Project #: 24E-04918

Project Name: Brushy Draw 30-31 Federal Battery - North

Project Location:

Sampler Name: L. Pullman

Lab I.D.

P.O. #:

Company: XTO Energy, Inc.

Attn: Colton Brown

Address: 3104 E. Greene St

City: Carlsbad

State: NM Zip: 88220

Phone #: 575-988-2390

Fax #:

PRESERV.

SAMPLING

BTEX (8021)

TPH:8015D(GRO / DRO / MRO)

Chloride

Sample I.D.

Topsoil

(G)RAB OR (C)OMP

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

02.21.25

13:35

X

X

X

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Relinquished By:

Date: 2-24-20

Received By:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

Relinquished By:

Date: 2-24-20

Received By:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

Delivered By: (Circle One)  
Sampler - UPS - Bus - Other:

Observed Temp. °C  
Corrected Temp. °C

Sample Condition  
Cool Intact  
☐ No ☐ No

CHECKED BY:  
(Initials)

Thermometer ID: 4844  
Correction Factor: -0.3

Standard ☐ Bacteria (only) Sample Condition

Observed Temp. °C

Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

## **APPENDIX D – Notification(s)**

**From:** [Hall, Brittany, EMNRD](#)  
**To:** [Chad Hensley](#)  
**Subject:** RE: [EXTERNAL] nAPP2431846528 sampling notice 432480 Variance.  
**Date:** Wednesday, February 19, 2025 8:22:09 AM

---

**Caution:** This email is from an external sender. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

Mr. Hensley,

The variance request is approved. Submit a correct C-141N for nAPP2500254282 and include in the “necessary for navigation to sampling site” box, the directions to the site AND that a variance request was approved.

Please include a copy of this email chain in the next submittal.

Thank you,

**Brittany Hall** ● Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.517.5333 | [Brittany.Hall@emnrd.nm.gov](mailto:Brittany.Hall@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/ocd/>

Effective 12/1/2024: OCD has updated guidance on karst potential occurrence zones. This notice can be found at: <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> under “2024 OCD ANNOUNCEMENTS AND NOTIFICATIONS”.

The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

---

**From:** Chad Hensley <CHensley@vertexresource.com>  
**Sent:** Wednesday, February 19, 2025 8:15 AM  
**To:** Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>  
**Subject:** [EXTERNAL] nAPP2431846528 sampling notice 432480 Variance.

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

Ms. Hall,

Vertex on behalf of ExxonMobil formally request a variance from 19.15.29.12 D.(1)(a) NMAC, “The responsible party must verbally notify the appropriate division district office two business days prior to conducting final sampling. If the division district office does not respond to the notice within the two business days, the responsible party may proceed with final sampling.

The responsible party may request a variance from this requirement upon a showing of good cause as determined by the division.” Request for sampling was given in error to the wrong incident number. Both incident numbers are at the same location, but the sampling notification is required for the incident number as depicted below:

Wrongly submitted request:

Incident number nAPP2431846528 with the approval given as seen in C-141N 432480.

Correct Incident number for sampling notification:

nAPP2500254282

Chad Hensley

Senior Project Manager

Cell: 575-200-6167

Vertex Resources Services Inc.

3101 Boyd Drive

Carlsbad, NM 88220



[www.vertex.ca](http://www.vertex.ca)

**Chad Hensley**

Senior Project Manager

Vertex Resource Services Inc.

Carlsbad, NM 88220

P

C 575.200.6167

F

[www.vertex.ca](http://www.vertex.ca)

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# OSE POD 0.5 Miles



12/11/2024, 8:13:17 AM

GIS WATERS PODs

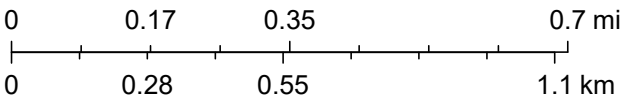
- Active
- Plugged
- 

OSE District Boundary

Water Right Regulations

- Artesian Planning Area
- NHD Flowlines
- Stream River

1:18,056



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



Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced, O=orphaned, C=the file is closed)																
	(quarters are smallest to largest)									(NAD83 UTM in meters)				(In feet)	(In feet)	(In feet)	
POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Distance	Well Depth	Depth Water	Water Column	
<a href="#">C 03782 POD1</a>		CUB	ED	SE	SW	SW	28	25S	30E	604525.7	3551444.2		2522	805	277	528	
<a href="#">C 01360</a>		CUB	ED	SE	SW	SW	05	26S	30E	602996.6	3548152.0		3142	770	173	597	
<a href="#">C 04705 POD1</a>		CUB	ED	NE	NW	NE	35	25S	29E	598866.5	3551191.8		3155				
<a href="#">C 01361</a>		CUB	ED	SW	SE	SW	05	26S	30E	603240.4	3548157.5		3221	775	184	591	
<a href="#">C 03581 POD1</a>		CUB	ED	SE	SE	SE	05	26S	30E	604298.2	3548291.8		3646	800	320	480	
<a href="#">C 03483</a>		C	ED	SE	SE	SE	05	26S	30E	604296.3	3548251.4		3676	700	200	500	
<a href="#">C 04558 POD1</a>		CUB	ED	SW	SE	SW	23	25S	29E	598353.7	3553039.4		4130				
<a href="#">C 04529 POD1</a>		CUB	ED	NW	SW	NW	18	25S	30E	601076.9	3555733.7		4689				
<a href="#">C 04755 POD2</a>		CUB	ED	SE	NW	SW	12	26S	29E	599857.0	3546955.1		4711	25			
<a href="#">C 04720 POD1</a>		CUB	ED	SE	NW	SW	12	26S	29E	599807.3	3546968.8		4722				
<a href="#">C 04755 POD1</a>		CUB	ED	SE	NW	SW	12	26S	29E	599787.4	3546971.4		4729	40			
<a href="#">C 04720 POD4</a>		CUB	ED	SE	NW	SW	12	26S	29E	599812.4	3546955.0		4732				
<a href="#">C 04720 POD2</a>		CUB	ED	SE	NW	SW	12	26S	29E	599835.7	3546932.1		4741				
<a href="#">C 04720 POD3</a>		CUB	ED	SE	NW	SW	12	26S	29E	599835.7	3546932.1		4741				
<a href="#">C 04720 POD5</a>		CUB	ED	SE	NW	SW	12	26S	29E	599840.0	3546920.4		4750	20			
<a href="#">C 04720 POD6</a>		CUB	ED	SE	NW	SW	12	26S	29E	599857.7	3546880.9		4777	31			
<a href="#">C 04755 POD3</a>		CUB	ED	SE	NW	SW	12	26S	29E	599747.8	3546862.3		4844	103			

Average Depth to Water: 230 feet

Minimum Depth: 173 feet

Maximum Depth: 320 feet



Record Count: 17

UTM Filters (in meters):

Easting: 602022  
Northing: 3551140  
Radius: 005000

\* UTM location was derived from PLSS - see Help

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

12/11/24 6:21 AM MST


Water Column/Average Depth to Water

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# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE  
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	TwS	Rng	X	Y	Map
	C 03782 POD1	SE	SW	SW	28	25S	30E	604525.7	3551444.2	

\* UTM location was derived from PLSS - see Help

Driller License:	331	Driller Company:	SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.			
Driller Name:	STEWART, JOEL H.					
Drill Start Date:	2015-01-16	Drill Finish Date:	2015-01-17		Plug Date:	
Log File Date:	2015-02-19	PCW Rcv Date:			Source:	Artesian
Pump Type:		Pipe Discharge Size:			Estimated Yield:	
Casing Size:	8.63	Depth Well:	805		Depth Water:	277

## Water Bearing Stratifications:

Top	Bottom	Description
260	320	Sandstone/Gravel/Conglomerate
320	380	Sandstone/Gravel/Conglomerate
380	410	Sandstone/Gravel/Conglomerate
410	530	Shale/Mudstone/Siltstone
530	590	Shale/Mudstone/Siltstone
590	600	Shale/Mudstone/Siltstone
600	630	Shale/Mudstone/Siltstone
630	650	Shale/Mudstone/Siltstone
650	700	Shale/Mudstone/Siltstone
700	710	Shale/Mudstone/Siltstone
710	760	Shale/Mudstone/Siltstone
760	770	Shale/Mudstone/Siltstone

Top	Bottom	Description
770	780	Shale/Mudstone/Siltstone
780	790	Shale/Mudstone/Siltstone
790	805	Shale/Mudstone/Siltstone

Casing Perforations:

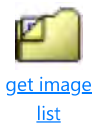
Top	Bottom
270	805

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

12/11/24 6:57 AM MST

Point of Diversion Summary

# Water Right Summary



WR File Number:	C 03782	Subbasin:	CUB	Cross Reference:
Primary Purpose:	EXP EXPLORATION			
Primary Status:	PMT Permit			
Total Acres:		Subfile:	Header:	
Total Diversion:	0.000	Cause/Case:		
Owner:	ATKINS ENGR ASSOC INC			
Contact:	CHRIS CORTEZ			
Owner:	BOPCO, L.P.			
Contact:	BRIAN PREGGER			

## Documents on File

(acre-feet per annum)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion	Consumptive
<a href="#">.get images</a>	<a href="#">555125</a>	EXPL	2014-11-14	PMT	LOG	C 03782	T	0.000	0.000	

## Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tw	Rng	X	Y	Map	Other Location Desc
<a href="#">C 03782 POD1</a>		Artesian	SE	SW	SW	28	25S	30E	604525.7	3551444.2		2/3 MILE SW OF HEDGEHOG ROAD

\* UTM location was derived from PLSS - see Help

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

12/11/24 6:59 AM MST

Water Rights Summary

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# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) POD-1 <i>Renumbered C-3832-POD 2</i>			OSE FILE NUMBER(S) <i>Renumbered C 3782 (exploratory) C-3832</i>			
	WELL OWNER NAME(S) BOPCO, L.P.			PHONE (OPTIONAL) (817) 390-8662			
	WELL OWNER MAILING ADDRESS 201 N Main St Suite 2900			CITY STATE ZIP Fort Worth TX 76102			
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 05	SECONDS 40.1	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE 103	53	32.2	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SW1/4SE1/4SW1/4 of Section 28, Township 25 South, Range 30 East, in the NE corner of a well pad.							
2. DRILLING & CASING INFORMATION	LICENSE NUMBER 331		NAME OF LICENSED DRILLER Joel H. Stewart		NAME OF WELL DRILLING COMPANY SBQ Drilling, LLC		
	DRILLING STARTED 01-16-15	DRILLING ENDED 01-17-15	DEPTH OF COMPLETED WELL (FT) 805	BORE HOLE DEPTH (FT) ±805	DEPTH WATER FIRST ENCOUNTERED (FT)		
	COMPLETED WELL IS: <input checked="" type="radio"/> ARTESIAN <input type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 277		
	DRILLING FLUID: <input type="radio"/> AIR <input checked="" type="radio"/> MUD ADDITIVES - SPECIFY:						
	DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY:						
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)
	0 270		14.75	AS1M A53B	Welded	8.625	0.322
	270 805		14.75	304 Stainless Steel	Welded	8.625	0.25
	0 15		19	AS1M A53B	---	16	0.25
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT	
	0 120		14.75	Sand Mix Ready Mix	90.36	grav. tremie meas.	
	120 170		14.75	Hydrated Bentonite Chips	35.90	grav. tremie meas.	
	170 805		14.75	6/9 Silica Sand	455.95	I remie Pipe	

FOR OSE INTERNAL USE *Renumbered from C-3782-POD1*

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER *C-3832*

POD NUMBER *POD 2*

TRN NUMBER *555125*

LOCATION *25.30.28.3343*

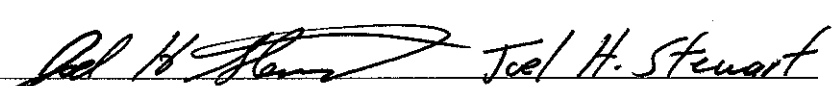
PAGE 1 OF 2

DEPTH (feet bgl)	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)	
					FROM
0	30	30	Cemented Sand, light tan, sub-angular	<input type="radio"/> Y <input type="radio"/> N	
30	40	10	Sandy Silt, light brown, sub-angular	<input type="radio"/> Y <input type="radio"/> N	
40	60	20	Sandy clay, reddish brown	<input type="radio"/> Y <input type="radio"/> N	
60	80	20	Silty Sand, light brown, sub-angular	<input type="radio"/> Y <input type="radio"/> N	
80	250	170	Fine to Medium Sand, light tan, sub-angular to rounded	<input type="radio"/> Y <input type="radio"/> N	
250	260	10	Clayey Sand, brown, sub-angular	<input type="radio"/> Y <input type="radio"/> N	
260	320	60	Fine Sand, light tan, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
320	380	60	Silty Sand, brownish gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
380	410	30	Fine Sand, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
410	530	120	Clayey Fine Sand, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
530	590	60	Sandy Clay, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
590	600	10	Clayey Fine Sand, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
600	630	30	Sandy Clay, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
630	650	20	Clayey Sand, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
650	700	50	Sandy Clay, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
700	710	10	Clayey Sand, brown and gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
710	760	50	Sandy Clay, dark gray, sub-angular	<input checked="" type="radio"/> Y <input type="radio"/> N	
760	770	10	Clay, 75% gray, 25% red	<input checked="" type="radio"/> Y <input type="radio"/> N	
770	780	10	Clay, 50% gray, 50% red	<input checked="" type="radio"/> Y <input type="radio"/> N	
780	790	10	Clay, 25% gray, 75% red	<input checked="" type="radio"/> Y <input type="radio"/> N	
790	805	15	Sandy Clay, Grayish red, 10% white sand.	<input checked="" type="radio"/> Y <input type="radio"/> N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="radio"/> PUMP			TOTAL ESTIMATED WELL YIELD (gpm): TBD		
<input type="radio"/> AIR LIFT <input type="radio"/> BAILER <input checked="" type="radio"/> OTHER - SPECIFY: TBD by pump test					

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: Pump test will be performed at a later time. Hydrated Bentonite Chips and Sand Mix Ready Mix were placed by gravity and tagged with tremie pipe.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Silverio Galindo, Gabriel Armijo, Pedro Pizano	

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 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	SIGNATURE OF DRILLER / PRINT SIGNEE NAME  Joel H. Stewart	DATE 2-13-15

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 06/08/2012)

FILE NUMBER C-3832

POD NUMBER PAD 2

TRN NUMBER 555125

LOCATION 25.30.28.3343

PAGE 2 OF 2



**Locator Tool Report****General Information:**

Application ID:27 Date: 05-28-2015 Time: 12:01:24

WR File Number: C-03782-POD1  
Purpose: POINT OF DIVERSIONApplicant First Name: BOPCO EXPLORATORY WELL DRILLERS RECORD  
Applicant Last Name: RENUMBERED C-3832-POD2GW Basin: CARLSBAD  
County: EDDYCritical Management Area Name(s): NONE  
Special Condition Area Name(s): NONE  
Land Grant Name: NON GRANT**PLSS Description (New Mexico Principal Meridian):**

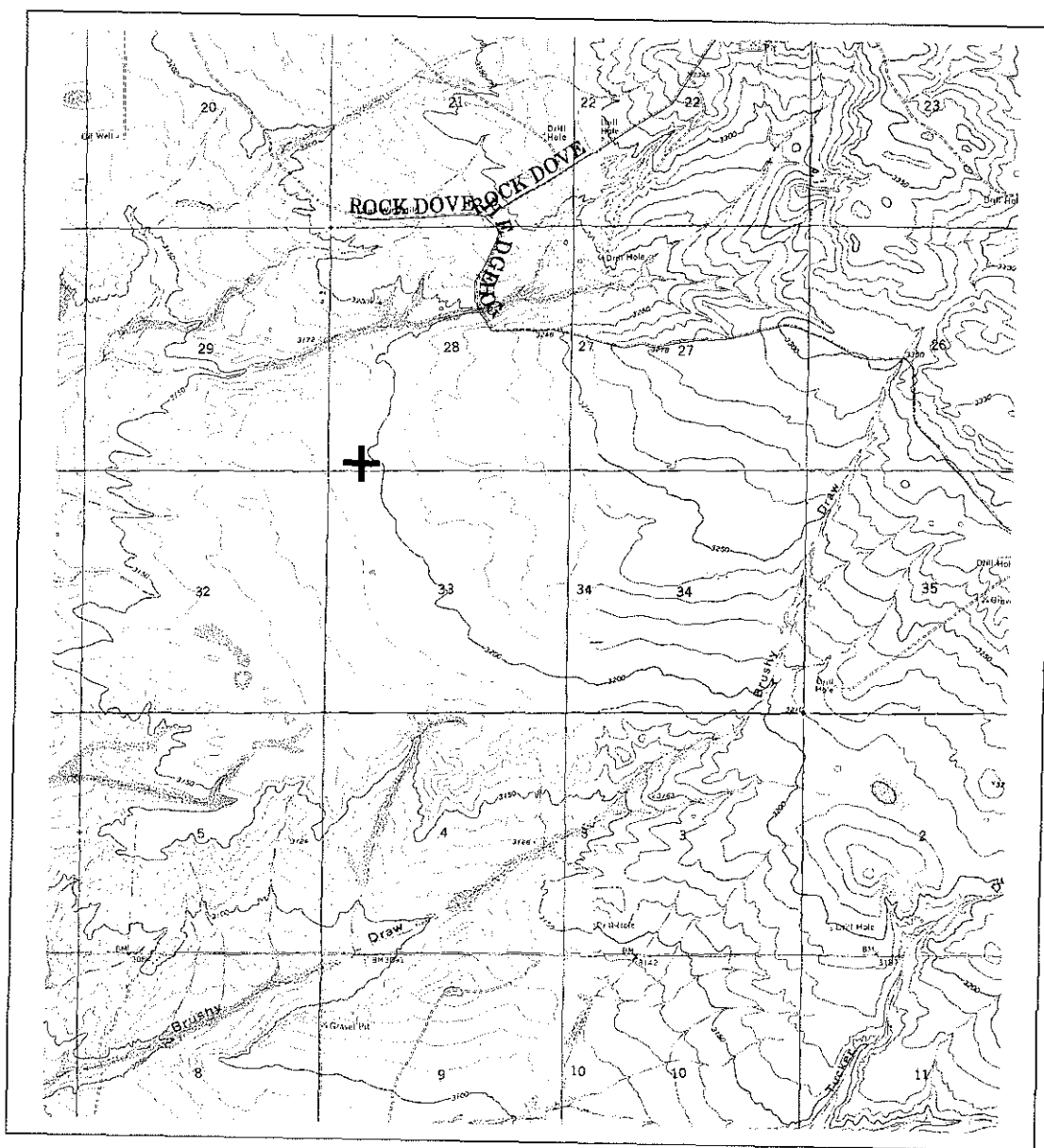
SW 1/4 of SE 1/4 of SW 1/4 of SW 1/4 of Section 28, Township 25S, Range 30E.

**Coordinate System Details:****Geographic Coordinates:**Latitude: 32 Degrees 5 Minutes 40.1 Seconds N  
Longitude: 103 Degrees 53 Minutes 32.2 Seconds W**Universal Transverse Mercator Zone: 13N**

NAD 1983(92) (Meters)	N: 3,551,444	E: 604,526
NAD 1983(92) (Survey Feet)	N: 11,651,697	E: 1,983,348
NAD 1927 (Meters)	N: 3,551,243	E: 604,573
NAD 1927 (Survey Feet)	N: 11,651,036	E: 1,983,505

**State Plane Coordinate System Zone: New Mexico East**

NAD 1983(92) (Meters)	N: 121,428	E: 206,630
NAD 1983(92) (Survey Feet)	N: 398,385	E: 677,920
NAD 1927 (Meters)	N: 121,410	E: 194,077
NAD 1927 (Survey Feet)	N: 398,327	E: 636,734

**NEW MEXICO OFFICE OF STATE ENGINEER****Locator Tool Report**

WR File Number: C-03782-POD1 Scale: 1:47,832

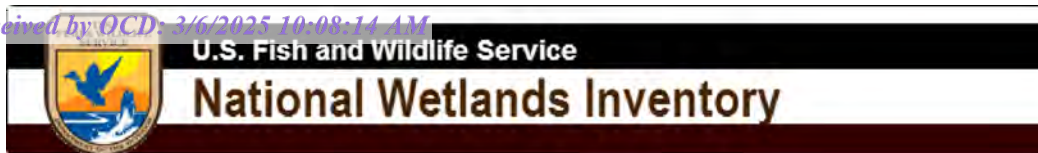
Northing/Easting: UTM83(92) (Meter): N: 3,551,444

E: 604,526

Northing/Easting: SPCS83(92) (Feet): N: 398,385

E: 677,920

GW Basin: Carlsbad



Intermittent 720 feet



December 11, 2024

**Wetlands**

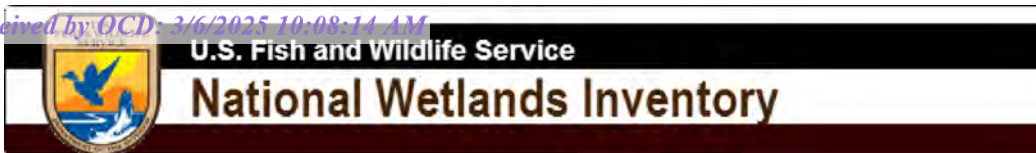
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- 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.





Pond 16,426 feet



December 11, 2024

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond


- Lake
- Other
- Riverine

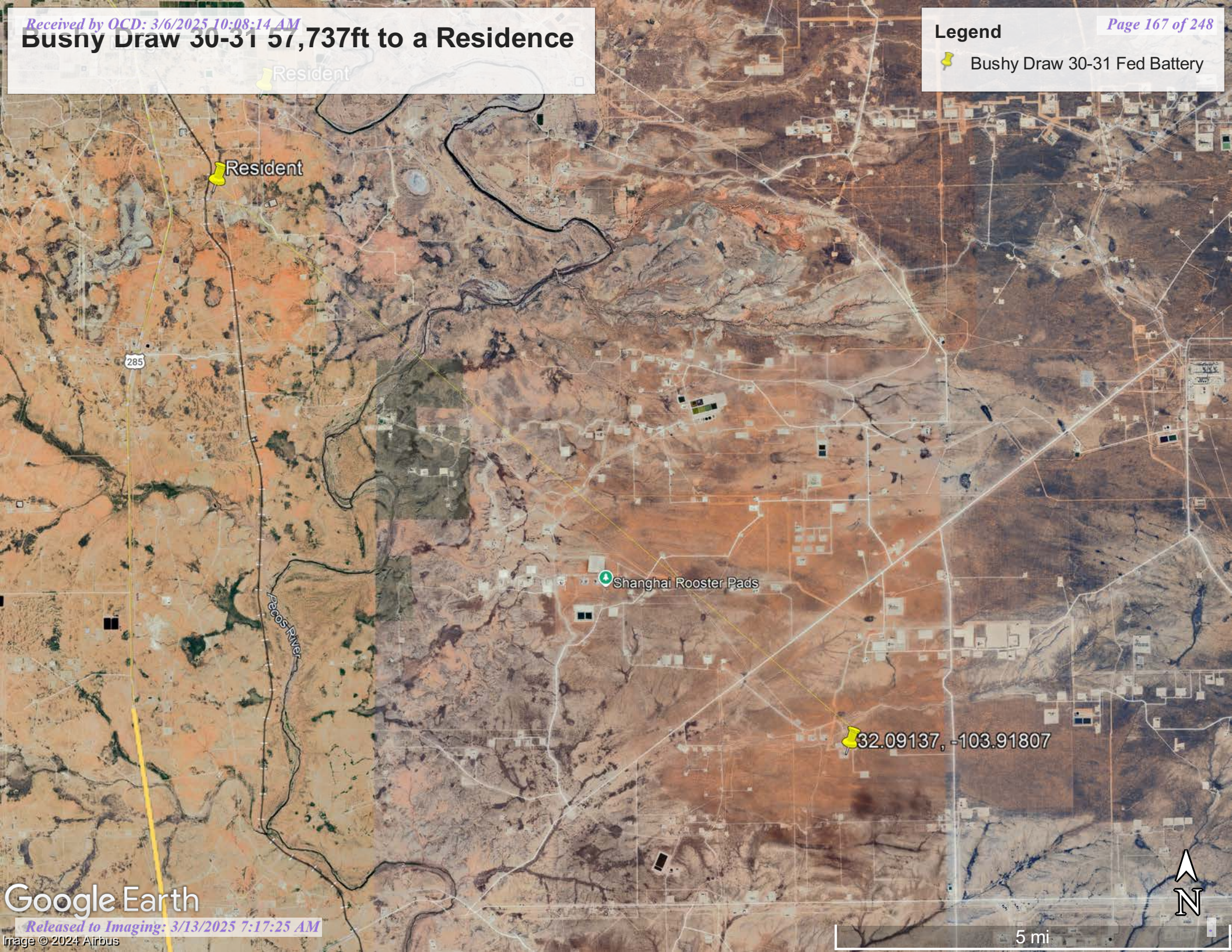
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



# Bushy Draw 30-31 57,737ft to a Residence

## Legend

 Bushy Draw 30-31 Fed Battery



Google Earth

Released to Imaging: 3/13/2025 7:17:25 AM

Image © 2024 Airbus

5 mi





Active & Inactive Points of Diversion  
(with Ownership Information)

			(acre ft per annum)	(R=POD has been replaced and no longer serves this file, C=the file is closed)						(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)							(NAD83 UTM in meters)		(meters)	
WR File Nbr	Sub basin	Use	Diversiion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q64	q16	q4	Sec	Tws	Range	X	Y	Map	Distance
<a href="#">C 04394</a>	CUB	MON	0.000	XTO ENERGY INC	ED	<a href="#">C 04394 POD1</a>	NA				SW	NE	SE	19	25S	30E	602315.9	3553464.1		2,342.6
<a href="#">C 03782</a>	CUB	EXP	0.000	BOPCO, L.P.	ED	<a href="#">C 03782 POD1</a>				Artesian	SE	SW	SW	28	25S	30E	604525.7	3551444.2		2,522.1
<a href="#">C 01360</a>	CUB	IND	0.000	EL PASO NATURAL GAS	ED	<a href="#">C 01360</a>				Shallow	SE	SW	SW	05	26S	30E	602996.6	3548152.0		3,142.9
<a href="#">C 03448</a>	C	PRO	0.000	DEVON ENERGY CORP.	ED	<a href="#">C 01360</a>				Shallow	SE	SW	SW	05	26S	30E	602996.6	3548152.0		3,142.9
<a href="#">C 03449</a>	C	PRO	0.000	OGX RESOURCES	ED	<a href="#">C 01360</a>				Shallow	SE	SW	SW	05	26S	30E	602996.6	3548152.0		3,142.9
<a href="#">C 04705</a>	CUB	MON	0.000	DEVON ENERGY	ED	<a href="#">C 04705 POD1</a>	NA				NE	NW	NE	35	25S	29E	598866.5	3551191.8		3,155.9
<a href="#">C 01361</a>	CUB	IND	0.000	EL PASO NATURAL GAS	ED	<a href="#">C 01361</a>				Shallow	SW	SE	SW	05	26S	30E	603240.4	3548157.5		3,221.8
<a href="#">C 03581</a>	CUB	EXP	0.000	JANEY LOREE PASCHAL	ED	<a href="#">C 03581 POD1</a>				Shallow	SE	SE	SE	05	26S	30E	604298.2	3548291.8		3,646.0
<a href="#">C 03608</a>	C	PRO	0.000	DEVON ENERGY CORP.	ED	<a href="#">C 03581 POD1</a>				Shallow	SE	SE	SE	05	26S	30E	604298.2	3548291.8		3,646.0
<a href="#">C 04612</a>	C	STK	3.000	JANEY LOREE PASCHALL DBA PASCHAL RANCH LLC	ED	<a href="#">C 04612 C-3581</a>	NA				SE	SE	SE	05	26S	30E	604298.2	3548291.8		3,646.0
<a href="#">C 03483</a>	C	STK	3.000	PASCHAL RANCH LLC	ED	<a href="#">C 03483</a>				Shallow	SE	SE	SE	05	26S	30E	604296.3	3548251.4		3,676.5
<a href="#">C 03501</a>	C	PRO	0.000	DEVON ENERGY CO.	ED	<a href="#">C 03483</a>				Shallow	SE	SE	SE	05	26S	30E	604296.3	3548251.4		3,676.5
<a href="#">C 03502</a>	C	PRO	0.000	DEVON ENERGY CO	ED	<a href="#">C 03483</a>				Shallow	SE	SE	SE	05	26S	30E	604296.3	3548251.4		3,676.5
<a href="#">C 03503</a>	C	PRO	0.000	DEVON ENERGY CO.	ED	<a href="#">C 03483</a>				Shallow	SE	SE	SE	05	26S	30E	604296.3	3548251.4		3,676.5
<a href="#">C 03483</a>	C	STK	3.000	PASCHAL RANCH LLC	ED	<a href="#">C 03483 POD3</a>					SE	SW	SW	04	26S	30E	604557.8	3548291.0		3,814.1
					ED	<a href="#">C 03483 POD2</a>						SW	SW	04	26S	30E	604565.8	3548253.6		3,847.4
<a href="#">C 04851</a>	CUB	MON	0.000	COG OPERATING LLC	ED	<a href="#">C 04851 POD1</a>	NA				NW	NE	NW	24	25S	29E	599946.3	3554519.9		3,966.4
<a href="#">C 02441</a>	C	STK	0.000	BYRON W PASCHAL	ED	<a href="#">C 02441</a>								21	25S	30E	605077.0	3553783.0 *		4,039.6
<a href="#">C 04758</a>	CUB	MON	0.000	XTO ENERGY, INC.	ED	<a href="#">C 04758 POD1</a>	NA				SE	SE	SE	17	25S	30E	604096.5	3554651.8		4,078.8
<a href="#">C 04558</a>	CUB	MON	0.000	XTO ENERGY INC	ED	<a href="#">C 04558 POD1</a>	NA				SW	SE	SW	23	25S	29E	598353.7	3553039.4		4,130.9
<a href="#">C 04730</a>	CUB	MON	0.000	XTO ENERGY, INC	ED	<a href="#">C 04730 POD1</a>	NA				SW	SW	NW	27	25S	30E	606032.8	3552256.2		4,163.2
<a href="#">C 04529</a>	CUB	MON	0.000	XTO ENERGY INC	ED	<a href="#">C 04529 POD1</a>	NA				NW	SW	NW	18	25S	30E	601076.9	3555733.7		4,689.9
<a href="#">C 04755</a>	CUB	MON	0.000	DEVON ENERGY	ED	<a href="#">C 04755 POD2</a>	NA				SE	NW	SW	12	26S	29E	599857.0	3546955.1		4,711.8
<a href="#">C 04720</a>	CUB	EXP	0.000	DEVON ENERGY	ED	<a href="#">C 04720 POD1</a>	NA				SE	NW	SW	12	26S	29E	599807.3	3546968.8		4,722.7
<a href="#">C 04755</a>	CUB	MON	0.000	DEVON ENERGY	ED	<a href="#">C 04755 POD1</a>	NA				SE	NW	SW	12	26S	29E	599787.4	3546971.4		4,729.8
<a href="#">C 04720</a>	CUB	EXP	0.000	DEVON ENERGY	ED	<a href="#">C 04720 POD4</a>	NA				SE	NW	SW	12	26S	29E	599812.4	3546955.0		4,732.5
					ED	<a href="#">C 04720 POD2</a>	NA				SE	NW	SW	12	26S	29E	599835.7	3546932.1		4,742.0
					ED	<a href="#">C 04720 POD3</a>	NA				SE	NW	SW	12	26S	29E	599835.7	3546932.1		4,742.0
					ED	<a href="#">C 04720 POD5</a>	NA				SE	NW	SW	12	26S	29E	599840.0	3546920.4		4,750.4
					ED	<a href="#">C 04720 POD6</a>	NA				SE	NW	SW	12	26S	29E	599857.7	3546880.9		4,777.5
<a href="#">C 04755</a>	CUB	MON	0.000	DEVON ENERGY	ED	<a href="#">C 04755 POD3</a>	NA				SE	NW	SW	12	26S	29E	599747.8	3546862.3		4,844.7

Record Count: 31

Filters Applied:


UTM Filters (in meters):

Easting: 602022

Northing: 3551140

# Point of Diversion Summary

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

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
	C 01360	SE	SW	SW	05	26S	30E	602996.6	3548152.0	

\* UTM location was derived from PLSS - see Help

Driller License:	95	Driller Company:	FOLK DRILLING CO.		
Driller Name:					
Drill Start Date:	1952-04-26	Drill Finish Date:	1952-05-15	Plug Date:	
Log File Date:	1953-11-17	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	
Casing Size:	12.75	Depth Well:	770	Depth Water:	173

## Water Bearing Stratifications:

Top	Bottom	Description
210	220	Sandstone/Gravel/Conglomerate
580	585	Sandstone/Gravel/Conglomerate
665	710	Sandstone/Gravel/Conglomerate
725	770	Sandstone/Gravel/Conglomerate

## Casing Perforations:

Top	Bottom
180	289
538	770

## Meter Information

Meter Number:	16557	Meter Make:	SIEMENS
Meter Serial Number:	L1254823	Meter Multiplier:	100.0000
Number of Dials:	8	Meter Type:	Diversion
Unit of Measure:	Gallons	Reading Frequency:	Quarterly



## Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
2014-07-01	2014	234997.000	A	RPT		0.000	
2014-09-30	2014	354169.000	A	RPT		36.573	
2014-11-20	2014	7281000.000	A	RPT		0.000	
2014-12-31	2014	11430100.000	A	RPT		12.733	
2015-04-01	2015	22535200.000	A	RPT		34.080	
2015-07-01	2015	35821800.000	A	RPT		40.775	
2015-10-05	2015	46631200.000	A	RPT		33.173	
2015-12-31	2015	55653200.000	A	RPT		27.688	
2016-01-31	2016	58047600.000	A	RPT		7.348	
2016-02-29	2016	61081100.000	A	RPT		9.309	
2016-03-31	2016	62593100.000	A	RPT		4.640	
2016-06-30	2016	71642600.000	A	RPT		27.772	
2016-10-03	2016	81998399.000	A	RPT		31.781	
2016-12-31	2016	90558600.000	A	RPT		26.270	
2019-04-04	2019	164290087.000	A	RPT		226.274	
2019-10-02	2019	790380.000	A	RPT	METER CHANGE OUT 07/2019	0.000	
2020-01-02	2020	1733720.000	A	RPT		289.500	
2021-04-07	2021	36814117.000	A	WEB		10765.779	X
2021-07-27	2021	36836238.000	A	WEB		6.789	X
2021-10-04	2021	36844496.000	A	WEB		2.534	X
2021-12-31	2021	36847463.000	A	WEB		0.911	X

## YTD Meter Amounts:

Year	Amount
2014	49.306
2015	135.716
2016	107.120

Year	Amount
2019	226.274
2020	289.500
2021	10776.013

Meter Information

Meter Number:	16558	Meter Make:	MASTERMETER
Meter Serial Number:	32530403	Meter Multiplier:	100.0000
Number of Dials:	6	Meter Type:	Diversion
Unit of Measure:	Gallons	Reading Frequency:	Monthly (No Reading Expected)

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
2014-10-01	2014	354169.000	A	RPT		0.000	
2014-11-20	2014	415555.000	A	RPT		18.839	
2014-11-21	2014	72810.000	A	RPT		0.000	
2014-12-31	2014	112178.000	A	RPT		12.082	
2015-02-01	2015	147039.000	A	RPT		10.698	
2015-03-02	2015	188133.000	A	RPT		12.611	
2015-04-01	2015	224102.000	A	RPT		11.038	
2015-04-30	2015	270723.000	A	RPT		14.307	
2015-05-31	2015	315628.000	A	tw		13.781	
2015-07-01	2015	369075.000	A	tw		16.402	
2015-08-01	2015	395528.000	A	tw		8.118	
2015-08-31	2015	455361.000	A	tw		18.362	
2015-10-01	2015	466312.000	A	RPT		3.361	

YTD Meter Amounts:

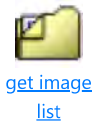
Year	Amount
2014	30.921
2015	108.678

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

12/11/24 8:01 AM MST

Point of Diversion Summary

## Water Right Summary



WR File Number:	C 01360	Subbasin:	CUB	Cross Reference:
Primary Purpose:	IND INDUSTRIAL			
Primary Status:	DCL Declaration			
Total Acres:	0.000	Subfile:	Header:	
Total Diversion:	0.000	Cause/Case:		
Owner:	EL PASO NATURAL GAS			
Contact:	PAULA JOY			

### Documents on File

(acre-feet per annum)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion	Consumptive
	<a href="#">460091</a>	COWNF	2010-05-26	CHG	PRC	C 01360	T	0.000	0.000	
	<a href="#">203459</a>	DCL	1953-11-17	DCL	PRC	C 01360	T	0.000	0.000	

### Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
<a href="#">C 01360</a>		Shallow	SE	SW	SW	05	26S	30E	602996.6	3548152.0		

\* UTM location was derived from PLSS - see Help

### Place of Use

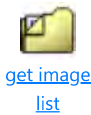
Q256	Q64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
							0.000	0.000		IND		DCL	NO PLACE OF USE GIVEN.

### Source

Acres	Diversion	CU	Use	Priority	Source	Description
0.000	0.000		IND		GW	

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

# Water Right Summary



WR File Number:	C 03448	Subbasin:	C	Cross Reference:
Primary Purpose:	PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE			
Primary Status:	PMT Permit			
Total Acres:		Subfile:	Header:	
Total Diversion:	0.000	Cause/Case:		
Owner:	DEVON ENERGY CORP.			
Contact:	SCOTT GREGORY			

## Documents on File

(acre-feet per annum)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion	Consumptive
<a href="#">get images</a>	<a href="#">461570</a>	72121	2010-06-29	PMT	APR	C 03448	T		3.000	

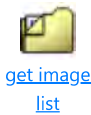
## Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
<a href="#">C 01360</a>		Shallow	SE	SW	SW	05	26S	30E	602996.6	3548152.0		

\* UTM location was derived from PLSS - see Help

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

# Water Right Summary



WR File Number:	C 03449	Subbasin:	C	Cross Reference:
Primary Purpose:	PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE			
Primary Status:	PMT Permit			
Total Acres:		Subfile:		Header:
Total Diversion:	0.000	Cause/Case:		
Owner:	OGX RESOURCES			
Contact:	SCOTT GREGORY			

## Documents on File

(acre-feet per annum)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion	Consumptive
<a href="#">get images</a>	<a href="#">461594</a>	72121	2010-06-29	EXP	EXP	C 03449	T		3.000	

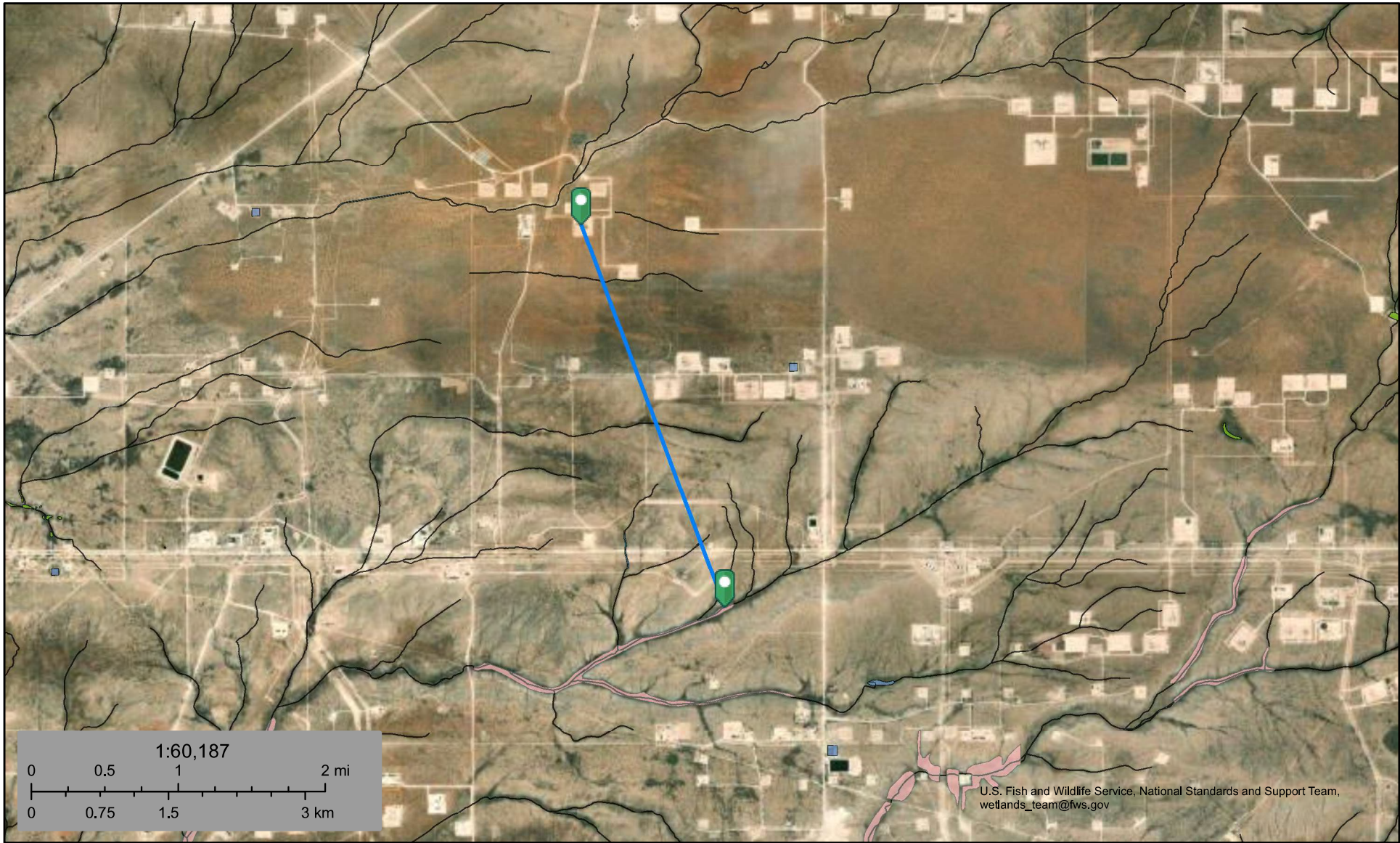
## Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
<a href="#">C 01360</a>		Shallow	SE	SW	SW	05	26S	30E	602996.6	3548152.0		

\* UTM location was derived from PLSS - see Help

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





December 11, 2024

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

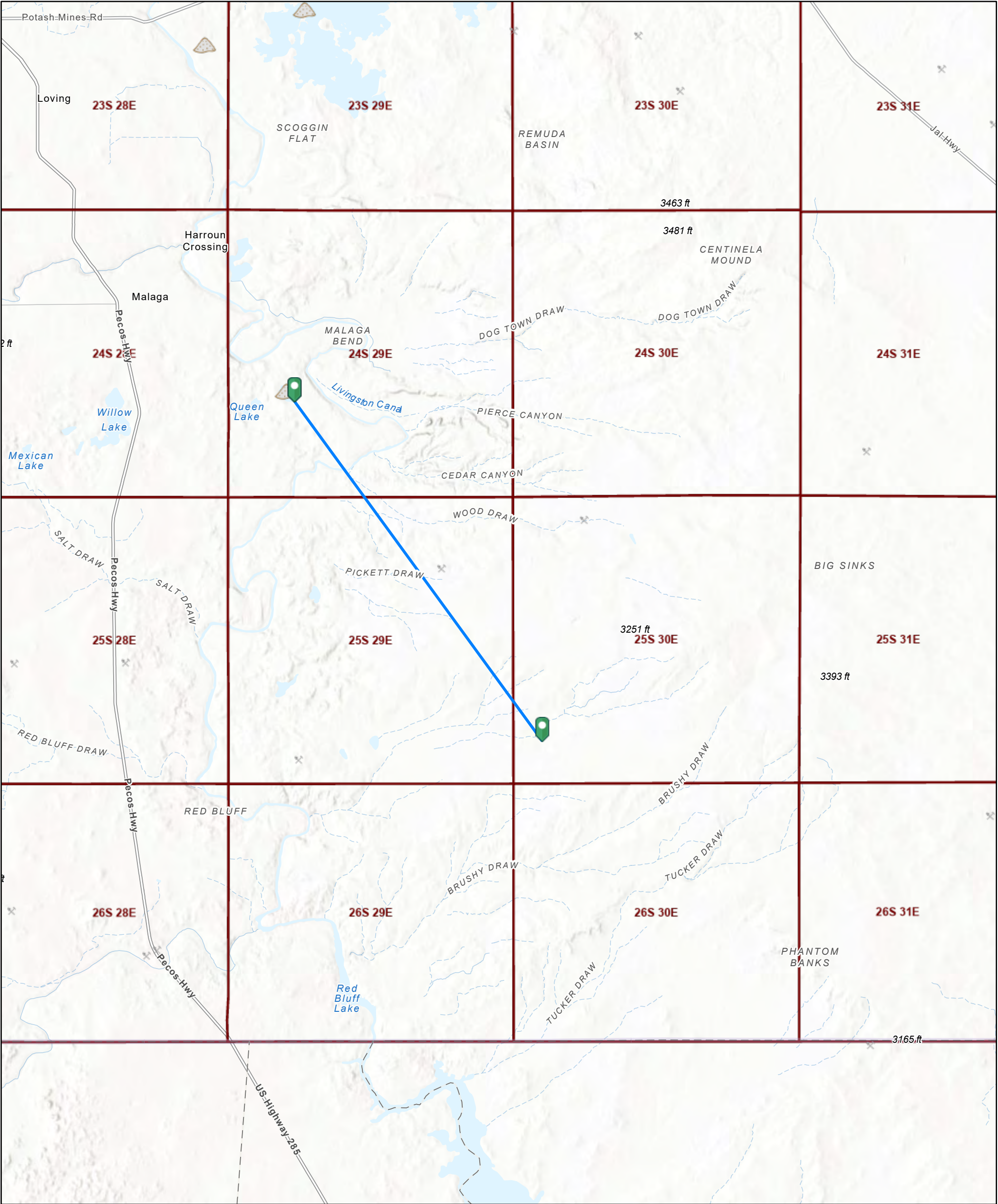
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- 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.



# Salt Mine 46,820 feet

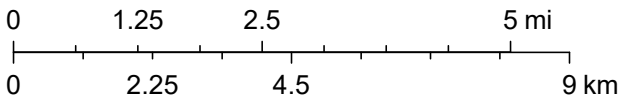


12/11/2024, 10:47:54 AM

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Salt
- PLSS Townships

1:144,448








Esri, NASA, NGA, USGS, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS, BLM



# Brushy Draw 30-31 Fed Battery

Karst Potential

## Legend

-  Brushy Draw 30-31 Fed Battery Release
-  High Karst Potential
-  Medium Karst Potential
-  Nearest High Karst 20,253 feet (3.84 miles)
-  Nearest Medium Karst 6,050 feet (1.15 miles)

Shanghai Rooster Pads

Brushy Draw 30-31 Fed Battery Release

Google Earth

Released to Imaging: 3/13/2025 7:17:25 AM

Image © 2024 Airbus



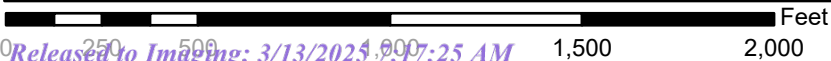
3 mi



# National Flood Hazard Layer FIRMette



103°55'24"W 32°5'44"N



1:6,000

103°54'46"W 32°5'14"N

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



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

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 **11/18/2024 at 8:49 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.

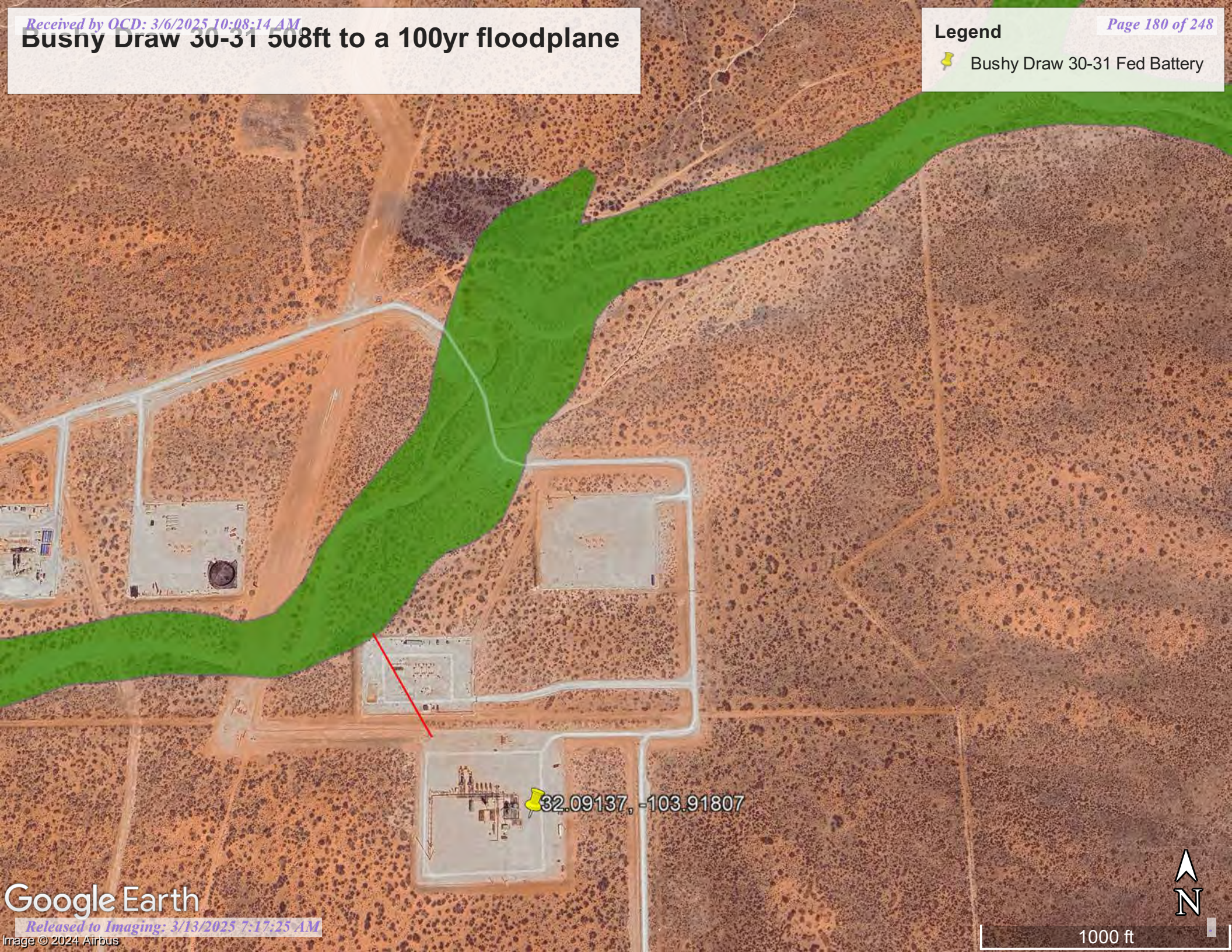
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory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



# Bushy Draw 30-31 508ft to a 100yr floodplane

## Legend

 Bushy Draw 30-31 Fed Battery



Google Earth

Released to Imaging: 3/13/2025 7:17:25 AM

Image © 2024 Airbus



1000 ft





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 18, 2024



Custom Soil Resource Report  
Soil Map (11. Bushy Draw 30-31 Soil Type)



## Custom Soil Resource 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 20, Sep 3, 2024

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

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

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

## Custom Soil Resource Report

## Map Unit Legend (11. Bushy Draw 30-31 Soil Type)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BB	Berino complex, 0 to 3 percent slopes, eroded	3.7	100.0%
Totals for Area of Interest		3.7	100.0%

## Map Unit Descriptions (11. Bushy Draw 30-31 Soil Type)

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

## Custom Soil Resource Report

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.

## Custom Soil Resource Report

**Eddy Area, New Mexico****BB—Berino complex, 0 to 3 percent slopes, eroded****Map Unit Setting**

*National map unit symbol:* 1w43  
*Elevation:* 2,000 to 5,700 feet  
*Mean annual precipitation:* 5 to 15 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:* 60 percent  
*Pajarito and similar soils:* 25 percent  
*Minor components:* 15 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 17 inches:* fine sand  
*H2 - 17 to 58 inches:* sandy clay loam  
*H3 - 58 to 60 inches:* loamy sand

**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 8.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* B  
*Ecological site:* R070BD003NM - Loamy Sand  
*Hydric soil rating:* No



## Custom Soil Resource Report

**Description of Pajarito****Setting**

*Landform:* Dunes, plains, interdunes  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Convex, linear  
*Parent material:* Mixed alluvium and/or eolian sands

**Typical profile**

*H1 - 0 to 9 inches:* loamy fine sand  
*H2 - 9 to 72 inches:* fine sandy loam

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 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:* Nonsaline (0.0 to 1.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 1.0  
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2e  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* A  
*Ecological site:* R070BD003NM - Loamy Sand  
*Hydric soil rating:* No

**Minor Components****Pajarito**

*Percent of map unit:* 4 percent  
*Ecological site:* R070BD003NM - Loamy Sand  
*Hydric soil rating:* No

**Wink**

*Percent of map unit:* 4 percent  
*Ecological site:* R070BD003NM - Loamy Sand  
*Hydric soil rating:* No

**Cacique**

*Percent of map unit:* 4 percent  
*Ecological site:* R070BD004NM - Sandy  
*Hydric soil rating:* No

**Kermit**

*Percent of map unit:* 3 percent  
*Ecological site:* R070BD005NM - Deep Sand  
*Hydric soil rating:* No



# Soil Information for All Uses

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## Ecological Sites

Individual soil map unit components can be correlated to a particular ecological site. The Ecological Site Assessment section includes ecological site descriptions, plant growth curves, state and transition models, and selected National Plants database information.

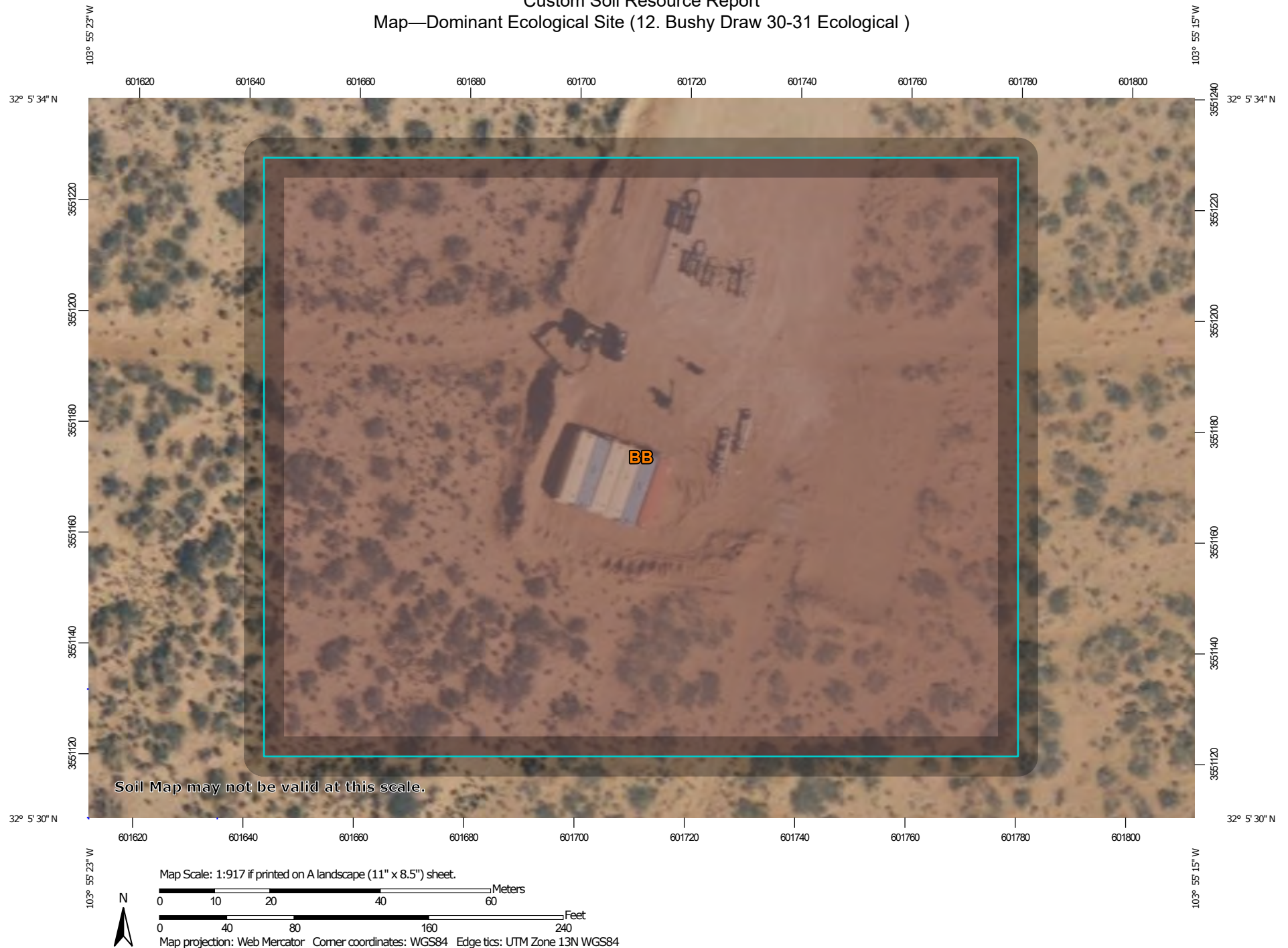
### All Ecological Sites — (12. Bushy Draw 30-31 Ecological )

An "ecological site" is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. For example, the hydrology of the site is influenced by development of the soil and plant community. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production.















An ecological site name provides a general description of a particular ecological site. For example, "Loamy Upland" is the name of a rangeland ecological site. An "ecological site ID" is the symbol assigned to a particular ecological site.

The map identifies the dominant ecological site for each map unit, aggregated by dominant condition. Other ecological sites may occur within each map unit. Each map unit typically consists of one or more components (soils and/or miscellaneous areas). Each soil component is associated with an ecological site. Miscellaneous areas, such as rock outcrop, sand dunes, and badlands, have little or no soil material and support little or no vegetation and therefore are not linked to an ecological site. The table below the map lists all of the ecological sites for each map unit component in your area of interest.

Custom Soil Resource Report  
Map—Dominant Ecological Site (12. Bushy Draw 30-31 Ecological )



## Custom Soil Resource Report

**MAP LEGEND****Area of Interest (AOI)**
 Area of Interest (AOI)
**Soils****Soil Rating Polygons**
 R070BD003NM  
 Not rated or not available
**Soil Rating Lines**
 R070BD003NM  
 Not rated or not available
**Soil Rating Points**
 R070BD003NM  
 Not rated or not available
**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)

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Soil Survey Area: Eddy Area, New Mexico  
 Survey Area Data: Version 20, Sep 3, 2024

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

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

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

## Custom Soil Resource Report

**Table—Ecological Sites by Map Unit Component (12. Bushy Draw 30-31 Ecological )**

Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
BB	Berino complex, 0 to 3 percent slopes, eroded	Berino (60%)	R070BD003NM — Loamy Sand	3.7	100.0%
		Pajarito (25%)	R070BD003NM — Loamy Sand		
		Cacique (4%)	R070BD004NM — Sandy		
		Pajarito (4%)	R070BD003NM — Loamy Sand		
		Wink (4%)	R070BD003NM — Loamy Sand		
		Kermit (3%)	R070BD005NM — Deep Sand		
Totals for Area of Interest				3.7	100.0%



# Ecological site R070BD003NM

## Loamy Sand

Accessed: 09/02/2024

### General information

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

Figure 1. Mapped extent

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

### Associated sites

R070BD004NM	<b>Sandy</b> Sandy
R070BD005NM	<b>Deep Sand</b> Deep Sand

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

### Physiographic features

This site is on uplands, plains, dunes, fan piedmonts and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands derived from sedimentary rock. Slope range on this site range from 0 to 9 percent with the average of 5 percent.

Low stabilized dunes may occur occasionally on this site. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont (2) Alluvial fan (3) Dune
Elevation	2,800–5,000 ft
Slope	0–9%
Aspect	Aspect is not a significant factor

### Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity-short duration thunderstorms. Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes.

The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

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

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

Climate data was obtained from <http://www.wrcc.sage.dri.edu/summary/climsmnm.html> web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

**Table 3. Representative climatic features**

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

## Influencing water features

This site is not influenced from water from wetlands or streams.

## Soil features

Soils are moderately deep or very deep. Surface textures are loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam.

Subsurface is a loamy fine sand, coarse sandy loam, fine sandy loam or loam that averages less than 18 percent clay and less than 15 percent carbonates.

Substratum is a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and with less than 40 percent calcium carbonate. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed.

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

Characteristic soils are:

Maljamar  
Berino  
Parjarito  
Palomas  
Wink  
Pyote

**Table 4. Representative soil features**

Surface texture	(1) Fine sand (2) Fine sandy loam (3) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to moderately rapid



Soil depth	40–72 in
Surface fragment cover ≤3"	0–10%
Surface fragment cover >3"	0%
Available water capacity (0–40in)	5–7 in
Calcium carbonate equivalent (0–40in)	3–40%
Electrical conductivity (0–40in)	2–4 mmhos/cm
Sodium adsorption ratio (0–40in)	0–2
Soil reaction (1:1 water) (0–40in)	6.6–8.4
Subsurface fragment volume ≤3" (Depth not specified)	4–12%
Subsurface fragment volume >3" (Depth not specified)	0%

## Ecological dynamics

### Overview

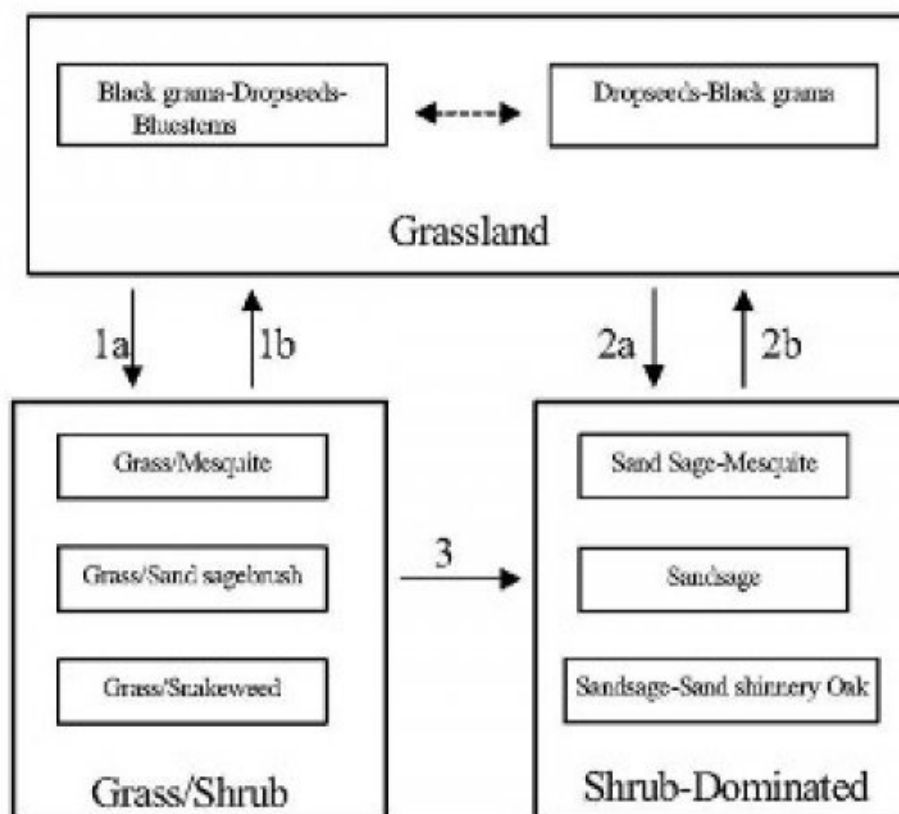
The Loamy Sand site intergrades with the Deep Sand and Sandy sites (SD-3). These sites can be differentiated by surface soil texture and depth to a textural change. Loamy Sand and Deep Sand sites have coarse textured (sands and loamy sand) surface soils while Sandy sites have moderately coarse textured (sandy loam and fine sandy loam) surfaces. Although Loamy Sand and Deep Sand sites have similar surface textures, the depth to a textural change is different—Loamy Sand sub-surface textures typically increase in clay at approximately 20 to 30 inches, and Deep Sand sites not until around 40 inches.

The historic plant community of Loamy Sand sites is dominated by black grama (*Bouteloua eriopoda*), dropseeds (*Sporobolus flexuosus*, *S. contractus*, *S. cryptandrus*), and bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), with scattered shinnery oak (*Quercus havardii*) and sand sage (*Artemisia filifolia*). Perennial and annual forb abundance and distribution are dependent on precipitation. Litter and to a lesser extent, bare ground, are a significant proportion of ground cover while grasses compose the remainder. Decreases in black grama indicate a transition to either a grass/shrub or shrub-dominated state. The grass/shrub state is composed of grasses/honey mesquite (*Prosopis glandulosa*), grasses/broom snakeweed (*Gutierrezia sarothrae*), or grasses/sand sage. The shrub-dominated state occurs after a severe loss of grass cover and a prevalence of sand sage with secondary shinnery oak and mesquite. Heavy grazing intensity and/or drought are influential drivers in decreasing black grama and bluestems and subsequently increasing shrub cover, erosion, and bare patches. Historical fire suppression also encourages shrub pervasiveness and a competitive advantage over grass species (McPherson 1995). Brush and grazing management, however, may reverse grass/shrub and shrub-dominated states toward the grassland-dominated historic plant community.

## State and transition model

## Plant Communities and Transitional Pathways (diagram):

### MLRA-42, SD-3, Loamy Sand



1a. Drought, over grazing, fire suppression.

1b. Brush control, prescribed grazing

2.a Severe loss of grass cover, fire suppression, erosion.

2b. Brush control, seeding, prescribed grazing.

3. Continued loss of grass cover, erosion.

## State 1

### Historic Climax Plant Community

## Community 1.1

### Historic Climax Plant Community

Grassland: The historic plant community is a uniformly distributed grassland dominated by black grama, dropseeds, and bluestems. Sand sage and shinnery oak are evenly dispersed throughout the grassland due to the coarse soil

surface texture. Perennial and annual forbs are common but their abundance and distribution are reflective of precipitation. Bluestems initially, followed by black grama, decrease with drought and heavy grazing intensity. Historical fire frequency is unknown but likely occurred enough to remove small shrubs to the competitive advantage of grass species. Fire suppression, drought conditions, and excessive grazing drive most grass species out of competition with shrub species. Diagnosis: Grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout the grassland. Forbs are present and populations fluctuate with precipitation variability.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	442	833	1224
Forb	110	208	306
Shrub/Vine	98	184	270
Total	650	1225	1800

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	28%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	50%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	22%

Figure 5. Plant community growth curve (percent production by month). NM2803, R042XC003NM-Loamy Sand-HCPC. SD-3 Loamy Sand - Warm season plant community .

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	3	5	10	10	25	30	12	5	0	0

State 2  
Grass/Shrub

Community 2.1  
Grass/Shrub



**Grass/Shrub State:** The grass/shrub state is dominated by communities of grasses/mesquite, grasses/snakeweed, or grasses/sand sage. Decreases in black grama and bluestem species lead to an increase in bare patches and mesquite which further competes with grass species. An increase of dropseeds and threeawns occurs. Grass distribution becomes more patchy with an absence or severe decrease in black grama and bluestems. Mesquite provides nitrogen and soil organic matter to co-dominant grasses (Ansley and Jacoby 1998, Ansley et al. 1998). Mesquite mortality when exposed to fire is low due to aggressive resprouting abilities. Herbicide application combined with subsequent prescribed fire may be more effective in mesquite reduction (Britton and Wright 1971). **Diagnosis:** This state is dominated by an increased abundance of communities including grass/mesquite, grass/snakeweed, or grass/sand sage. Dropseeds and threeawns have a patchy distribution. **Transition to Grass/Shrub State (1a):** The historic plant community begins to shift toward the grass/shrub state as drivers such as drought, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by a decrease in black grama with a subsequent increase of dropseeds, threeawns, mesquite, and snakeweed. Snakeweed has been documented to outcompete black grama especially under conditions of fire suppression and drought (McDaniel et al. 1984). **Key indicators of approach to transition:** • Loss of black grama cover • Surface soil erosion • Bare patch expansion • Increased dropseed/threeawn and mesquite, snakeweed, or sand sage abundances **Transition to Historic Plant Community (1b):** Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community.

### **State 3 Shrub Dominated**

#### **Community 3.1 Shrub Dominated**

**Shrub-Dominated State:** The shrub-dominated state results from a severe loss of grass cover. This state's primary species is sand sage. Shinnery oak and mesquite also occur; however, grass cover is limited to intershrub distribution. Sand sage stabilizes light sandy soils from wind erosion, which enhances protected grass/forb cover (Davis and Bonham 1979). However, shinnery oak also responds to the sandy soils with dense stands due to an

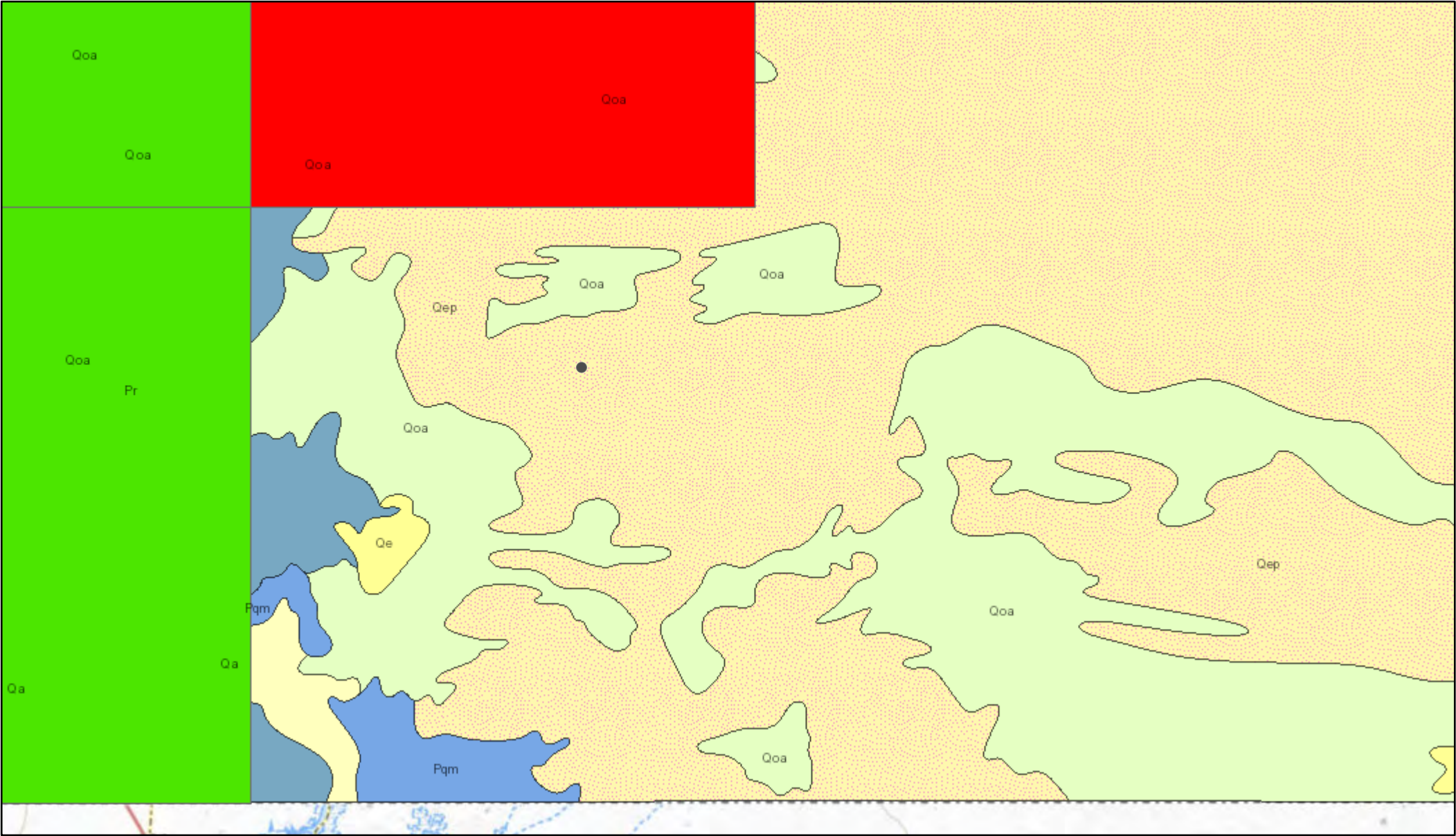
aggressive rhizome system. Shinnery oak's extensive root system promotes competitive exclusion of grasses and forbs. Sand sage, shinnery oak, and mesquite can be controlled with herbicide (Herbel et al. 1979, Pettit 1986). Transition to Shrub-Dominated (2a): Severe loss of grass species with increased erosion and fire suppression will result in a transition to a shrub-dominated state with sand sage, Shin oak, and honey mesquite directly from the grassland-dominated state. Key indicators of approach to transition: • Severe loss of grass species cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite abundance Transition to Historic Plant Community (2b): Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community. In addition, seeding with native grass species will augment the transition to a grassland-dominated state. Transition to Shrub-Dominated (3): If the grass/shrub site continues to lose grass cover with soil erosion, the site will transition to a shrub-dominated state with sand sage, shinnery oak, and honey mesquite. Key indicators of approach to transition: • Continual loss of dropseeds/threawns cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite/dropseed/threawn and mesquite/snakeweed abundance

## Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
<b>Grass/Grasslike</b>					
1	<b>Warm Season</b>			61–123	
	little bluestem	SCSC	<i>Schizachyrium scoparium</i>	61–123	–
2	<b>Warm Season</b>			37–61	
	sand bluestem	ANHA	<i>Andropogon hallii</i>	37–61	–
3	<b>Warm Season</b>			37–61	
	cane bluestem	BOBA3	<i>Bothriochloa barbinodis</i>	37–61	–
	silver bluestem	BOSA	<i>Bothriochloa saccharoides</i>	37–61	–
4	<b>Warm Season</b>			123–184	
	black grama	BOER4	<i>Bouteloua eriopoda</i>	123–184	–
	bush muhly	MUPO2	<i>Muhlenbergia porteri</i>	123–184	–
5	<b>Warm Season</b>			123–184	
	thin paspalum	PASE5	<i>Paspalum setaceum</i>	123–184	–
	plains bristlegrass	SEVU2	<i>Setaria vulpiseta</i>	123–184	–
	fringed signalgrass	URCI	<i>Urochloa ciliatissima</i>	123–184	–
6	<b>Warm Season</b>			123–184	
	spike dropseed	SPCO4	<i>Sporobolus contractus</i>	123–184	–
	sand dropseed	SPCR	<i>Sporobolus cryptandrus</i>	123–184	–
	mesa dropseed	SPFL2	<i>Sporobolus flexuosus</i>	123–184	–
7	<b>Warm Season</b>			61–123	
	hooded windmill grass	CHCU2	<i>Chloris cucullata</i>	61–123	–
	Arizona cottontop	DICA8	<i>Digitaria californica</i>	61–123	–
9	<b>Other Perennial Grasses</b>			37–61	
	Grass, perennial	2GP	<i>Grass, perennial</i>	37–61	–
<b>Shrub/Vine</b>					
8	<b>Warm Season</b>			37–61	
	New Mexico feathergrass	HENE5	<i>Hesperostipa neomexicana</i>	37–61	–
	giant dropseed	SPGI	<i>Sporobolus giganteus</i>	37–61	–
10	<b>Shrub</b>			61–123	

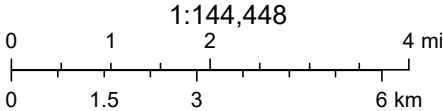
13. Bushy Draw 30-31 Geology



11/18/2024, 2:41:54 PM

Lithologic Units

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



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





# Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	11/21/2024
Site Location Name:	Brushy Draw 30-31 Fed Battery	Report Run Date:	12/2/2024 2:33 PM
Client Contact Name:	Amy Ruth	API #:	
Client Contact Phone #:	432-661-0571		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

## Summary of Times

Arrived at Site	11/21/2024 10:11 AM
Departed Site	11/21/2024 3:07 PM

## Daily Site Visit Report



Site Sketch

Site Sketch

## Daily Site Visit Report



### Field Notes

14:55 Delineate spill area

### Next Steps & Recommendations

1 Send samples to lab for analysis

## Daily Site Visit Report



## Site Photos

Viewing Direction: East



BH24-01 @ 4'

Viewing Direction: East



BH24-02 @ 4'

Viewing Direction: South



BH24-03 @ 4'

Viewing Direction: East



BH24-04 @ 4'



## Daily Site Visit Report

Viewing Direction: East



BH24-05 @ 4'

Viewing Direction: West



BH24-06 @ 4'

Viewing Direction: North



BH24-07

## Daily Site Visit Report



Daily Site Visit Signature

Inspector: Riley Plogger

Signature:

Signature 





## Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	2/16/2025
Site Location Name:	Brushy Draw 30-31 Fed Battery	Report Run Date:	2/17/2025 2:07 AM
Client Contact Name:	Amy Ruth	API #:	
Client Contact Phone #:	432-661-0571		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	2/16/2025 7:01 AM
Departed Site	2/16/2025 4:38 PM

### Field Notes

- 9:29** Incident north of treating equipment. Completed Vertex and XTO JSA on arrival. Communicated to XTO and confirmed work clearance. On site to collect confirmation samples from excavation surfaces on north side of pad.
- 9:29** Swept excavation sampling areas with magnetic locator prior to sample collection.
- 9:30** Collected confirmation samples from surfaces of excavations to 1, 1.5, 2, 3, 4, and 5 feet bgs on north side of pad and into pasture. Confirmation samples collected from the excavation base and walls were 5-point composites representing areas no greater than 200 square feet.
- 16:02** Collected confirmation samples WS25-08 and WS25-09 from walls of excavations to 3 and 2 feet bgs, respectively. Collected confirmation samples WS25-10, WS25-11, WS25-14, and WS25-20 from walls of excavations to 1.5 feet bgs. Collected confirmation samples WS25-12, WS25-13, and WS25-17 from walls of excavations to 1 feet bgs. Collected confirmation samples WS25-15 and WS25-16 WS25-06 from walls of excavation to 2 feet bgs. Collected confirmation samples WS25-18 and WS25-19 from walls of excavations to 4 and 5 feet bgs, respectively. Field screening results were below NMOCD strictest criteria for chloride and TPH.
- 16:04** Collected confirmation samples BS25-45 through BS25-48 from base of excavation to 2 feet bgs. Collected confirmation samples BS25-49 through BS25-55 from base of excavation to 1 feet bgs. Collected confirmation samples BS25-56, BS25-57, and BS25-58 from base of excavations to 5, 4, and 1.5 feet bgs, respectively. Field screening results were below NMOCD strictest criteria for chloride and TPH.

## Daily Site Visit Report



### Next Steps & Recommendations

- 1 Continue collecting confirmation samples from prepared excavations.
- 2 Continue excavation immediately north of treating equipment.

## Daily Site Visit Report



## Site Photos

Viewing Direction: West



At pad entrance facing west.

Viewing Direction: North



North edge of pad facing north. Collected WS25-14 from pasture excavation wall to 1.5 feet bgs.



## Daily Site Visit Report

**Viewing Direction: East**



North edge of pad facing east. Collected WS25-12 and WS25-13 excavation wall to 1 feet bgs.

**Viewing Direction: Northwest**



North side of pad facing northwest. Collected WS25-12 and WS25-13 excavation wall to 1 feet bgs.

**Viewing Direction: West**



North side of pad facing west. Collected WS25-09 and WS25-10 from excavation walls to 2 and 1.5 feet bgs.

**Viewing Direction: Southwest**







North side of pad facing southwest. Collected WS25-09 and WS25-10 from excavation walls to 2 and 1.5 feet bgs.





## Daily Site Visit Report

<p><b>Viewing Direction: East</b></p>  <p>Descriptive Photo - 7 Viewing Direction: East Taken North side of pad facing east. Collected WS25-08 and WS25-11 from excavation walls to 3 and 1.5 feet bgs. Created: 3/12/2025 1:22:25 PM Lat: 33.22154, Long: -112.21761</p> <p>North side of pad facing east. Collected WS25-08 and WS25-11 from excavation walls to 3 and 1.5 feet bgs.</p>	<p><b>Viewing Direction: North</b></p>  <p>Descriptive Photo - 8 Viewing Direction: North Taken North side of pad facing north. Collected WS25-08 and WS25-11 from excavation walls to 3 and 1.5 feet bgs. Created: 3/12/2025 1:24:30 PM Lat: 33.22154, Long: -112.21761</p> <p>North side of pad facing northeast. Collected WS25-08 and WS25-11 from excavation walls to 3 and 1.5 feet bgs.</p>
<p><b>Viewing Direction: North</b></p>  <p>Descriptive Photo - 9 Viewing Direction: North Taken North side of pad facing north. Collected BS25-45, BS25-46, and WS25-16 from excavation to 2 feet bgs. Created: 3/12/2025 1:27:46 PM Lat: 33.22154, Long: -112.21761</p> <p>North side of pad facing north. Collected BS25-45, BS25-46, and WS25-16 from excavation to 2 feet bgs.</p>	<p><b>Viewing Direction: Northeast</b></p>  <p>Descriptive Photo - 10 Viewing Direction: Northeast Taken North side of pad facing northeast. Collected BS25-45 through BS25-48, WS25-15, and WS25-16 from excavation to 2 feet bgs. Created: 3/12/2025 1:30:46 PM Lat: 33.22154, Long: -112.21761</p> <p>North side of pad facing northeast. Collected BS25-45 through BS25-48, WS25-15, and WS25-16 from excavation to 2 feet bgs.</p>



## Daily Site Visit Report

### Viewing Direction: West



North side of pad facing west. Collected BS25-47, BS25-48, WS25-15, and WS25-16 from excavation to 2 feet bgs.

### Viewing Direction: Southwest



North side of pad facing southwest. Collected BS25-49 through BS25-55 and WS25-17 from excavation to 1 feet bgs.

### Viewing Direction: East



North side of pad facing east. Collected BS25-49 through BS25-55 and WS25-17 from excavation to 1 feet bgs.

### Viewing Direction: North



North side of pad facing north. Collected BS25-56 through BS25-58 and WS25-18 through WS25-20 from excavations to 1.5, 4, and 5 feet bgs.





## Daily Site Visit Report

Viewing Direction: West



North side of pad facing west. Collected BS25-56 through BS25-58 and WS25-18 through WS25-20 from excavations to 1.5, 4, and 5 feet bgs.

Viewing Direction: South



North side of pad facing south. Collected BS25-56 through BS25-58 and WS25-18 through WS25-20 from excavations to 1.5, 4, and 5 feet bgs.

## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Lakin Pullman

**Signature:**

A handwritten signature in black ink, appearing to be 'LP', written over a thin horizontal line.

Signature



## Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	2/17/2025
Site Location Name:	Brushy Draw 30-31 Fed Battery	Report Run Date:	2/18/2025 2:23 AM
Client Contact Name:	Amy Ruth	API #:	
Client Contact Phone #:	432-661-0571		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	2/17/2025 6:44 AM
Departed Site	2/17/2025 4:54 PM

### Field Notes

- 8:59** Incident north of treating equipment. Completed Vertex and XTO JSA on arrival. Conducted safety meeting with Halo work crew. Communicated to XTO and confirmed work clearance. On site to continue excavation north of treating equipment. Also on site to continue collecting confirmation samples from completed excavation on north side of pad.
- 8:59** Swept excavation areas with magnetic locator. Infrastructure proximity introduced interference.
- 14:16** Collected confirmation samples from surfaces of excavations to 1, 1.5, 2, and 3 feet bgs on north side of pad and into pasture. Confirmation samples collected from the excavation base and walls were 5-point composites representing areas no greater than 200 square feet.
- 16:06** Collected confirmation samples BS25-22 and BS25-23 from base of excavation to 3 feet bgs. Collected confirmation samples BS25-24 through 26 from base of excavation to 2 feet bgs. Collected confirmation samples BS25-27 through BS25-34 from base of excavation to 1.5 feet bgs on pad. Collected confirmation samples BS25-35 through BS25-40 from base of excavation to 1 foot bgs. Collected confirmation samples BS25-41 through BS25-44 from base of excavation to 1.5 feet bgs in pasture off north edge of pad. Field screening results were below NMOCD strictest criteria for chloride and TPH.
- 16:07** Packed confirmation samples for laboratory analyses. Confirmation sampling for excavation on north side of pad is tentatively completed to date pending laboratory results.

## Daily Site Visit Report



**16:08** Halo work crew continued to dig excavation between pipes north of treating equipment to 3 feet bgs with hand tools. Excavation was not completed and was to continue the following day.

### Next Steps & Recommendations

- 1 Continue excavation.

## Daily Site Visit Report



## Site Photos

Viewing Direction: West



At pad entrance facing west.

Viewing Direction: West



North side of pad facing west. Collected BS25-22 and BS25-23 from excavation to 3 feet bgs.

Viewing Direction: West



North side of pad facing west. Collected BS25-27 through BS25-30 from excavation to 1.5 feet bgs.

Viewing Direction: Southwest







North side of pad facing southwest. Collected BS25-24 through BS25-27 from excavation to 2 feet bgs.





## Daily Site Visit Report

<p><b>Viewing Direction: Northeast</b></p>  <p><small>Descriptive Photo - 6 Viewing Direction: Northeast Date: North side of pad facing northeast. Collected BS25-31 through BS25-34 from excavation to 1.5 feet bgs. Created: 3/17/2025 1:57:05 PM Lat: 33.092296, Long: -103.919024</small></p> <p>North side of pad facing northeast. Collected BS25-31 through BS25-34 from excavation to 1.5 feet bgs.</p>	<p><b>Viewing Direction: East</b></p>  <p><small>Descriptive Photo - 6 Viewing Direction: East Date: North side of pad facing east. Collected BS25-31 through BS25-34 from excavation to 1.5 feet bgs. Created: 3/17/2025 1:57:05 PM Lat: 33.092296, Long: -103.919024</small></p> <p>North side of pad facing east. Collected BS25-31 through BS25-34 from excavation to 1.5 feet bgs.</p>
<p><b>Viewing Direction: East</b></p>  <p><small>Descriptive Photo - 7 Viewing Direction: East Date: North side of pad facing east. Collected BS25-35 through BS25-40 from excavation to 1 foot bgs. Created: 3/17/2025 1:58:51 PM Lat: 33.092296, Long: -103.919024</small></p> <p>North side of pad facing east. Collected BS25-35 through BS25-40 from excavation to 1 foot bgs.</p>	<p><b>Viewing Direction: Northwest</b></p>  <p><small>Descriptive Photo - 8 Viewing Direction: Northwest Date: North side of pad facing northwest. Collected BS25-35 through BS25-40 from excavation to 1 foot bgs. Created: 3/17/2025 1:59:49 PM Lat: 33.092296, Long: -103.919024</small></p> <p>North side of pad facing northwest. Collected BS25-35 through BS25-40 from excavation to 1 foot bgs.</p>





## Daily Site Visit Report

**Viewing Direction: Southeast**



North edge of pad facing southeast. Collected BS25-35 through BS25-40 from excavation to 1 feet bgs.

**Viewing Direction: North**



North edge of pad facing north. Collected BS25-41 through BS25-44 from excavation in pasture to 1.5 feet bgs.

**Viewing Direction: Southeast**



North of pad facing southeast. Collected BS25-41 through BS25-44 from excavation in pasture to 1.5 feet bgs.

**Viewing Direction: North**



North of treating equipment facing north. Excavation to 3 feet bgs incomplete.



## Daily Site Visit Report

Viewing Direction: East



Descriptive Photo: 13  
Viewing Direction: East  
Desc: North of treating equipment facing east/ Excavation to 3 feet bgs incomplete  
Created: 2/17/2025 4:09:37 PM  
Lat: 32.091882, Long: -103.918976

North of treating equipment facing east.  
Excavation to 3 feet bgs incomplete.

## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Lakin Pullman

**Signature:**

A handwritten signature in black ink, appearing to be 'LP', written over a horizontal line.

Signature



## Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	2/20/2025
Site Location Name:	Brushy Draw 30-31 Fed Battery	Report Run Date:	2/21/2025 2:38 AM
Client Contact Name:	Amy Ruth	API #:	
Client Contact Phone #:	432-661-0571		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	2/20/2025 7:10 AM
Departed Site	2/20/2025 4:47 PM

### Field Notes

- 7:16** Incident north of treating equipment. Completed Vertex and XTO JSA on arrival. Conducted safety meeting with Halo work crew. Communicated to XTO and confirmed work clearance. On site to complete excavation on north side of pad. Also on site to collect confirmation samples from excavation surfaces.
- 7:18** Swept excavation and sampling areas with magnetic locator. Infrastructure proximity introduced interference.
- 13:48** Halo crew completed excavation to 2 feet bgs east of pipelines. Excavation tentatively completed pending field screening results.
- 13:51** Collected confirmation samples from surfaces of excavations to 3, 4, and 6 feet north of treating equipment. Confirmation samples collected from the excavation base and walls were 5-point composites representing areas no greater than 200 square feet.
- 14:42** Collected confirmation samples BS25-01 through BS25-09 from base of excavation to 4 feet bgs. Collected confirmation samples BS25-10 through BS25-20 from base of excavation to 6 feet bgs. Collected confirmation samples BS25-59 and BS25-60 from base of excavation to 3 feet bgs between pipes. Collected confirmation sample BS25-21 and BS25-68 through BS25-70 from base of excavation to 3 feet bgs along pipelines. Field screening results were below NMOCD strictest criteria for chloride and TPH.
- 15:25** Collected confirmation samples WS25-01 through WS25-04 from walls of excavation to 4 feet bgs. Collected confirmation samples WS25-05 through WS25-07 from walls of excavation to 6 feet bgs. Collected confirmation samples WS25-21 and WS25-22 from wall of excavation to 3 feet bgs between pipes. Field screening results were below NMOCD strictest criteria for chloride and TPH.



## Daily Site Visit Report

**15:26** Remaining confirmation samples to be collected the following day.

### Next Steps & Recommendations

- 1 Submit confirmation samples for laboratory analyses.
- 2 Collect remaining confirmation samples.



## Daily Site Visit Report



## Site Photos

Viewing Direction: West



At pad entrance facing west.

Viewing Direction: North

North of treating equipment facing north.  
Excavation completed east of pipelines.

Viewing Direction: South

North of treating equipment facing south.  
Excavation completed east of pipelines.

Viewing Direction: North

At treating equipment facing north. Collected  
confirmation samples from excavations to 4  
and 6 feet bgs.



## Daily Site Visit Report

**Viewing Direction: North**



North of treating equipment facing north.  
Collected confirmation samples from excavations to 4 and 6 feet bgs.

**Viewing Direction: North**



North of treating equipment facing north.  
Collected confirmation samples from excavations to 4 and 6 feet bgs.

**Viewing Direction: Northwest**



North of treating equipment facing northwest.  
Collected confirmation samples from excavations to 4 and 6 feet bgs.

**Viewing Direction: South**



North of treating equipment facing southeast.  
Collected confirmation samples from excavations to 4 and 6 feet bgs.





## Daily Site Visit Report

**Viewing Direction: South**



North of treating equipment facing south.  
Collected confirmation samples from excavations to 4 and 6 feet bgs.

**Viewing Direction: Southwest**



North of treating equipment facing southwest.  
Collected confirmation samples from excavations to 4 and 6 feet bgs.

**Viewing Direction: Southwest**



North of treating equipment facing southwest.  
Collected confirmation samples from excavations to 3 feet bgs between pipes.


**Viewing Direction: Southeast**



North of treating equipment facing southeast.  
Collected confirmation samples from excavations to 3 feet bgs between pipes.



## Daily Site Visit Report

<p><b>Viewing Direction: Southeast</b></p>  <p><b>Descriptive Photo - 13</b> Viewing Direction: Southeast Desc: North of treating equipment facing southeast. Collected confirmation samples from excavations to 3 feet bgs between pipes. Created: 2/20/2025 2:22:50 PM Lat:32.091881, Long: -103.518883</p> <p>North of treating equipment facing southeast. Collected confirmation samples from excavations to 3 feet bgs between pipes.</p>	<p><b>Viewing Direction: North</b></p>  <p><b>Descriptive Photo - 14</b> Viewing Direction: North Desc: North of treating equipment facing northwest. Collected confirmation samples from excavations to 3 feet bgs between pipes. Created: 2/20/2025 2:23:35 PM Lat:32.091850, Long: -103.518457</p> <p>North of treating equipment facing northwest. Collected confirmation samples from excavations to 3 feet bgs between pipes.</p>
<p><b>Viewing Direction: North</b></p>  <p><b>Descriptive Photo - 15</b> Viewing Direction: North Desc: North of treating equipment facing north. Collected confirmation samples from excavation to 3 feet bgs over pipelines. Created: 2/20/2025 2:23:10 PM Lat:32.092337, Long: -103.518883</p> <p>North of treating equipment facing north. Collected confirmation samples from excavation to 3 feet bgs over pipelines.</p>	<p><b>Viewing Direction: South</b></p>  <p><b>Descriptive Photo - 16</b> Viewing Direction: South Desc: North of treating equipment facing south. Collected confirmation samples from excavation to 3 feet bgs over pipelines. Created: 2/20/2025 2:23:44 PM Lat:32.092175, Long: -103.518883</p> <p>North of treating equipment facing south. Collected confirmation samples from excavation to 3 feet bgs over pipelines.</p>

## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Lakin Pullman

**Signature:**

A handwritten signature in black ink, appearing to be 'LP', written over a thin horizontal line.

Signature





## Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	2/21/2025
Site Location Name:	Brushy Draw 30-31 Fed Battery	Report Run Date:	2/22/2025 5:04 PM
Client Contact Name:	Amy Ruth	API #:	
Client Contact Phone #:	432-661-0571		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	2/21/2025 7:02 AM
Departed Site	2/21/2025 4:44 PM

### Field Notes

- 10:30** Incident north of treating equipment. Completed Vertex and XTO JSA on arrival. Conducted safety meeting with Halo work crew. Communicated to XTO and confirmed work clearance. On site to complete excavation on north side of pad. Also on site to complete confirmation sampling of excavation surfaces.
- 10:30** Swept excavation areas with magnetic locator. Infrastructure proximity introduced interference.
- 10:31** Halo work crew completed the excavation to 2 feet bgs west of the pipelines with hand tools due to proximity of equipment. Excavation completed pending confirmation sampling laboratory results.
- 14:02** Collected confirmation samples from surfaces of excavations to 2 and 3 feet bgs north of treating equipment. Confirmation samples collected from the excavation base and walls were 5-point composites representing areas no greater than 200 square feet.
- 4:16** Collected confirmation samples BS25-61 through BS25-67 from base of excavation to 2 feet bgs west of pipelines. Collected confirmation samples BS25-71 through BS25-75 from base of excavation to 2 feet bgs east of pipelines. Field screening results were below NMOCD strictest criteria for chloride and TPH.
- 4:22** Collected confirmation samples WS25-23 and WS25-24 from walls of excavation to 2 feet bgs west of pipelines. Collected confirmation sample WS25-27 from walls of excavation to 2 feet bgs east of pipelines. Collected confirmation samples WS25-25 and WS25-26 from walls of excavation to 3 feet bgs over pipelines. Field screening results were below NMOCD strictest criteria for chloride and TPH.



## Daily Site Visit Report

**4:26** Halo stockpiled backfill and topsoil on site as material was hauled out. Collected composite samples from backfill and topsoil stockpiles. Field screening results were below NMOCD strictest criteria for chloride and TPH.

**4:26** Excavation and confirmation sampling completed pending laboratory results.

### Next Steps & Recommendations

- 1** Submit confirmation samples to laboratory for analyses.
- 2** Submit backfill and topsoil samples to laboratory for analyses.

# Daily Site Visit Report



## Site Photos

Viewing Direction: West



At site entrance facing west.

Viewing Direction: North



North of treating equipment facing north. Completed excavation west of pipelines to 2 feet bgs.



## Daily Site Visit Report

**Viewing Direction: North**



North of treating equipment facing north.  
Collected confirmation samples from  
excavation west of pipelines to 2 feet bgs.

**Viewing Direction: South**



North of treating equipment facing south.  
Collected confirmation samples from  
excavation west of pipelines to 2 feet bgs.

**Viewing Direction: Northwest**



North of treating equipment facing northwest.  
Collected confirmation samples from  
excavation west of pipelines to 2 feet bgs.

**Viewing Direction: South**



North of treating equipment facing south.  
Collected confirmation samples from  
excavation west of pipelines to 2 feet bgs.





## Daily Site Visit Report

**Viewing Direction: Southeast**



North of treating equipment facing southeast. Collected confirmation samples from excavation west of pipelines to 2 feet bgs.

**Viewing Direction: Southwest**



North of treating equipment facing southwest. Collected confirmation samples from walls of excavation over pipelines to 3 feet bgs.

**Viewing Direction: Southeast**



North of treating equipment facing southeast. Collected confirmation samples from walls of excavation over pipelines to 3 feet bgs.

**Viewing Direction: South**







North of treating equipment facing south. Collected confirmation samples from excavation east of pipelines to 2 feet bgs.









## Daily Site Visit Report

<p><b>Viewing Direction: Southeast</b></p>  <p><small>Descriptive Photo - 11 Viewing Direction: Southeast Date: 2/22/2025 2:12:12 PM Created: 2/22/2025 2:12:12 PM Lat: 32.092107, Long: -103.918817</small></p> <p>North of treating equipment facing southeast. Collected confirmation samples from excavation east of pipelines to 2 feet bgs.</p>	<p><b>Viewing Direction: North</b></p>  <p><small>Descriptive Photo - 12 Viewing Direction: North Date: 2/22/2025 2:12:12 PM Created: 2/22/2025 2:12:12 PM Lat: 32.092107, Long: -103.918817</small></p> <p>North of treating equipment facing north. Collected confirmation samples from excavation east of pipelines to 2 feet bgs.</p>
<p><b>Viewing Direction: Northeast</b></p>  <p><small>Descriptive Photo - 13 Viewing Direction: Northeast Date: 2/22/2025 2:13:28 PM Created: 2/22/2025 2:13:28 PM Lat: 32.092107, Long: -103.918817</small></p> <p>North of treating equipment facing northeast. Collected confirmation samples from excavation east of pipelines to 2 feet bgs.</p>	<p><b>Viewing Direction: North</b></p>  <p><small>Descriptive Photo - 14 Viewing Direction: North Date: 2/22/2025 2:14:04 PM Created: 2/22/2025 2:14:04 PM Lat: 32.092107, Long: -103.918817</small></p> <p>North of treating equipment facing north. Collected confirmation samples from excavation east of pipelines to 2 feet bgs.</p>



## Daily Site Visit Report

<p><b>Viewing Direction: North</b></p>  <p>Descriptive Photo - 14 Viewing Direction: North Desc: North edge of pad facing north. Completed excavation in pasture. Created: 3/21/2025 2:18:47 PM Lat:32.889616, Long:-103.519084</p> <p>North edge of pad facing north. Completed excavation in pasture.</p>	<p><b>Viewing Direction: Southeast</b></p>  <p>Descriptive Photo - 15 Viewing Direction: Southeast Desc: North of pad facing southeast. Completed excavation in pasture. Created: 3/21/2025 2:18:47 PM Lat:32.889616, Long:-103.519084</p> <p>North of pad facing southeast. Completed excavation in pasture.</p>
<p><b>Viewing Direction: Southeast</b></p>  <p>Descriptive Photo - 17 Viewing Direction: Southeast Desc: North edge of pad facing southeast. Completed excavation. Created: 3/21/2025 2:18:47 PM Lat:32.889616, Long:-103.519084</p> <p>North edge of pad facing southeast. Completed excavation.</p>	<p><b>Viewing Direction: Southeast</b></p>  <p>Descriptive Photo - 18 Viewing Direction: Southeast Desc: North edge of pad facing southeast. Completed excavation. Created: 3/21/2025 2:18:47 PM Lat:32.889616, Long:-103.519084</p> <p>North edge of pad facing southeast. Completed excavation.</p>





**Viewing Direction: South**



**Viewing Direction:** Southwest



**Viewing Direction:** Northwest



**Viewing Direction: East**



## Daily Site Visit Report

**Viewing Direction: Southwest**



North side of pad facing southwest. Completed excavation.

**Viewing Direction: South**



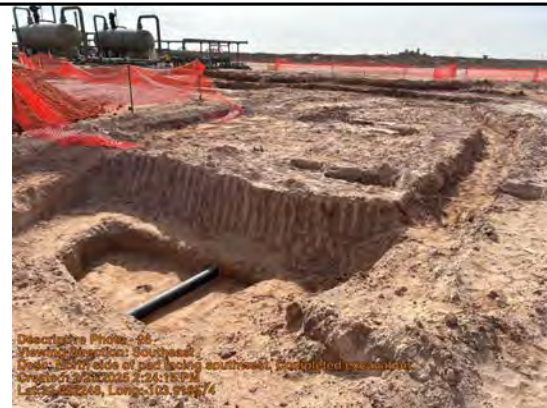
North side of pad facing south. Completed excavation.

**Viewing Direction: East**



North side of pad facing east. Completed excavation.

**Viewing Direction: Southeast**



North side of pad facing southwest. Completed excavation.





## Daily Site Visit Report

**Viewing Direction: West**



North side of pad facing west. Completed excavation.

**Viewing Direction: East**



North side of pad facing east. Completed excavation.

**Viewing Direction: Southeast**



North side of pad facing southeast. Completed excavation.

**Viewing Direction: Northeast**



North of treating equipment facing northeast. Completed excavation.





## Daily Site Visit Report

**Viewing Direction: Southwest**



North of treating equipment facing southwest.  
Completed excavation.

**Viewing Direction: Northwest**



North of treating equipment facing northwest.  
Completed excavation.

**Viewing Direction: North**



North of treating equipment facing north.  
Completed excavation.

**Viewing Direction: North**



At treating equipment facing north. Completed excavation.



## Daily Site Visit Report

Viewing Direction: West



North of tank battery facing west. Backfill stockpile.

Viewing Direction: West



North side of pad facing west. Topsoil stockpile.

## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Lakin Pullman

**Signature:**

A handwritten signature in black ink, appearing to be 'LP', written over a horizontal line.

Signature

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QUESTIONS

Action 439746

QUESTIONS

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  439746
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2431846528
Incident Name	NAPP2431846528 BRUSHY DRAW 30-31 FED BATTERY @ 0
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2207332396] BRUSHY DRAW 30-31 FED BATTERY

Location of Release Source	
Please answer all the questions in this group.	
Site Name	BRUSHY DRAW 30-31 FED BATTERY
Date Release Discovered	11/10/2024
Surface Owner	Federal

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

Nature and Volume of Release	
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	Cause: Corrosion   Other (Specify)   Crude Oil   Released: 27 BBL   Recovered: 2 BBL   Lost: 25 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion   Other (Specify)   Produced Water   Released: 108 BBL   Recovered: 2 BBL   Lost: 106 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Release was from the bulk line

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QUESTIONS, Page 2

Action 439746

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 439746
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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: Robert Woodall Title: Environmental Analyst Email: <a href="mailto:robert.d.woodall@exxonmobil.com">robert.d.woodall@exxonmobil.com</a> Date: 03/06/2025
--	---



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QUESTIONS, Page 3

Action 439746

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  439746
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Site Characterization</b>	
<i>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.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	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	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 500 and 1000 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

<b>Remediation Plan</b>	
<i>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.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
<b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	6800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	4598
GRO+DRO (EPA SW-846 Method 8015M)	4101
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>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>	
On what estimated date will the remediation commence	01/22/2025
On what date will (or did) the final sampling or liner inspection occur	02/21/2025
On what date will (or was) the remediation complete(d)	04/15/2025
What is the estimated surface area (in square feet) that will be reclaimed	570
What is the estimated volume (in cubic yards) that will be reclaimed	85
What is the estimated surface area (in square feet) that will be remediated	10268
What is the estimated volume (in cubic yards) that will be remediated	1560
<i>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.</i>	
<i>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.</i>	

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QUESTIONS, Page 4

Action 439746

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  439746
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>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.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [fEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<i>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>	
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: Robert Woodall Title: Environmental Analyst Email: robert.d.woodall@exxonmobil.com Date: 03/06/2025
<i>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.</i>	

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QUESTIONS, Page 5

Action 439746

QUESTIONS (continued)

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  439746
	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, Page 6

Action 439746

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 439746
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	433328
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	02/21/2025
What was the (estimated) number of samples that were to be gathered	51
What was the sampling surface area in square feet	8900

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	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	12920
What was the total volume (cubic yards) remediated	1343
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	850
What was the total volume (in cubic yards) reclaimed	44
Summarize any additional remediation activities not included by answers (above)	see report
<p><i>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></p>	
<p>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.</p>	
I hereby agree and sign off to the above statement	Name: Robert Woodall Title: Environmental Analyst Email: robert.d.woodall@exxonmobil.com Date: 03/06/2025

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QUESTIONS, Page 7  
  
Action 439746

QUESTIONS (continued)

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  439746
	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 439746

**CONDITIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 439746
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
bhall	Remediation closure approved.	3/13/2025
bhall	A reclamation report will not be accepted until reclamation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	3/13/2025
bhall	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. The OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	3/13/2025
bhall	A revegetation report will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	3/13/2025
bhall	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	3/13/2025
bhall	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	3/13/2025