



September 23, 2024

**New Mexico Oil Conservation Division**

1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan  
PLU 22 DTD  
Incident Number NAPP2418049577  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document site assessment and delineation activities completed to date and propose to complete confirmation soil sampling to address an unauthorized release at the PLU 22 DTD (Site). The purpose of the site assessment and delineation activities was to assess for the presence or absence of impacted soil resulting from a release of produced water and crude oil at the Site. The following *Work Plan* proposes confirmation soil sampling to be completed within the release extent area for Incident Number NAPP2418049577.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The release was discovered in Unit G, Section 22, Township 24 South, Range 30 East in Eddy County, New Mexico (32.206°, -103.86686°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On June 26, 2024, an illegal dump was discovered along an active lease road. An estimated 26 barrels (bbls) of produced water and 26 bbls of crude oil were released onto the surface of the lease road and into an adjacent pasture area. No fluids were recovered. Upon discovery of the illegal dump, the Eddy County sheriff's department was notified and case number L240001598 was filed. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via Notification of Release (NOR) and submitted an Initial C-141 Application (C-141) on June 28, 2024. The release was assigned Incident Number NAPP2418049577.

**SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented below and potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Society (USGS) well 321203103511801, located 0.75 miles to the southeast of the Site. The groundwater well has a reported depth to groundwater of 423 feet bgs and a total depth of 367

feet bgs. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 179 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

## SITE ASSESSMENT AND DELINEATION ACTIVITIES

On July 9, 2024, Ensolum personnel conducted site assessment activities at the Site to evaluate the release extent based on information provided on the C-141 and visual observations. The release extent area was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Photographic documentation was conducted and a Photographic Log is included in Appendix B.

On July 24, 2024, Ensolum personnel returned to the site to complete delineation and soil sampling activities to assess the presence or absence of impacted soil. Ten delineation soil samples (SS01 through SS10) were collected around the release extent from a depth of 0.5 feet bgs to define the lateral extent of the release. Six boreholes (BH01 through BH06) were advanced via hand auger to a maximum depth of 1-foot bgs within the release extent to determine the vertical extent of the release. Two discrete delineation soil samples were collected from each borehole at depths of 0.5 feet bgs and 1-foot bgs. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations for each pothole were documented on a lithologic/soil sampling log and are included as Appendix C. The delineation soil sample locations are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following contaminants of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method SM4500.

Laboratory analytical results for all delineation soil samples collected indicated that all COC concentrations were compliant with Closure Criteria and reclamation requirement. Based on laboratory analytical results, the lateral and vertical extent of the release is defined. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included in Appendix D.

XTO Energy Inc.  
Remediation Work Plan  
PLU 22 DTD



## PROPOSED REMEDIATION WORK PLAN

Laboratory analytical results for all delineation soil sampling completed indicate the absence of impacted soil across an approximate 10,200 square-foot release area. XTO proposes to complete the following remediation activities:

- Collect 5-point composite confirmation soil samples on the surface of the access road and pasture areas, within the release extent. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing.
- Due to the size of the release extent, XTO requests a variance for frequency of confirmation samples. XTO proposes the five-point composite samples to be collected at a sampling frequency of 400 square feet. The proposed sampling frequency would reduce the total amount of samples from approximately 51 samples (200 square feet) to approximately 26 samples.
- If laboratory analytical results from surface confirmation soil sampling indicates the presence of impacted soil, excavation of impacted soil will ensue, and 5-point composite soil samples will be collected from the floor and sidewall of the final excavated extent. All confirmation soil samples collected will be handled and analyzed for the same COCs as described above.
- The release extent will be monitored in the pasture area for impacts to vegetation. If any vegetation impacts are noted, XTO will resurface the stressed pasture surface area to match pre-existing Site conditions and re-seeded with the recommended BLM seed mixture.

XTO believes this *Work Plan* is protective of human health, the environment, and groundwater. As such, XTO requests approval of this *Work Plan* by NMOCD. XTO will complete the soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD. If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or [tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com).

Sincerely,  
**Ensolum, LLC**

A handwritten signature in black ink, appearing to read "Tracy Hillard".

Tracy Hillard  
Project Manager

A handwritten signature in black ink, appearing to read "Tacoma Morrissey".

Tacoma Morrissey  
Associate Principal

cc:  
Colton Brown, XTO  
Kaylan Dirkx, XTO  
BLM

Appendices:  
Figure 1 Site Receptor Map  
Figure 2 Delineation Soil Sample Locations  
Table 1 Soil Sample Analytical Results  
Appendix A Referenced Well Records

XTO Energy Inc.  
Remediation Work Plan  
PLU 22 DTD



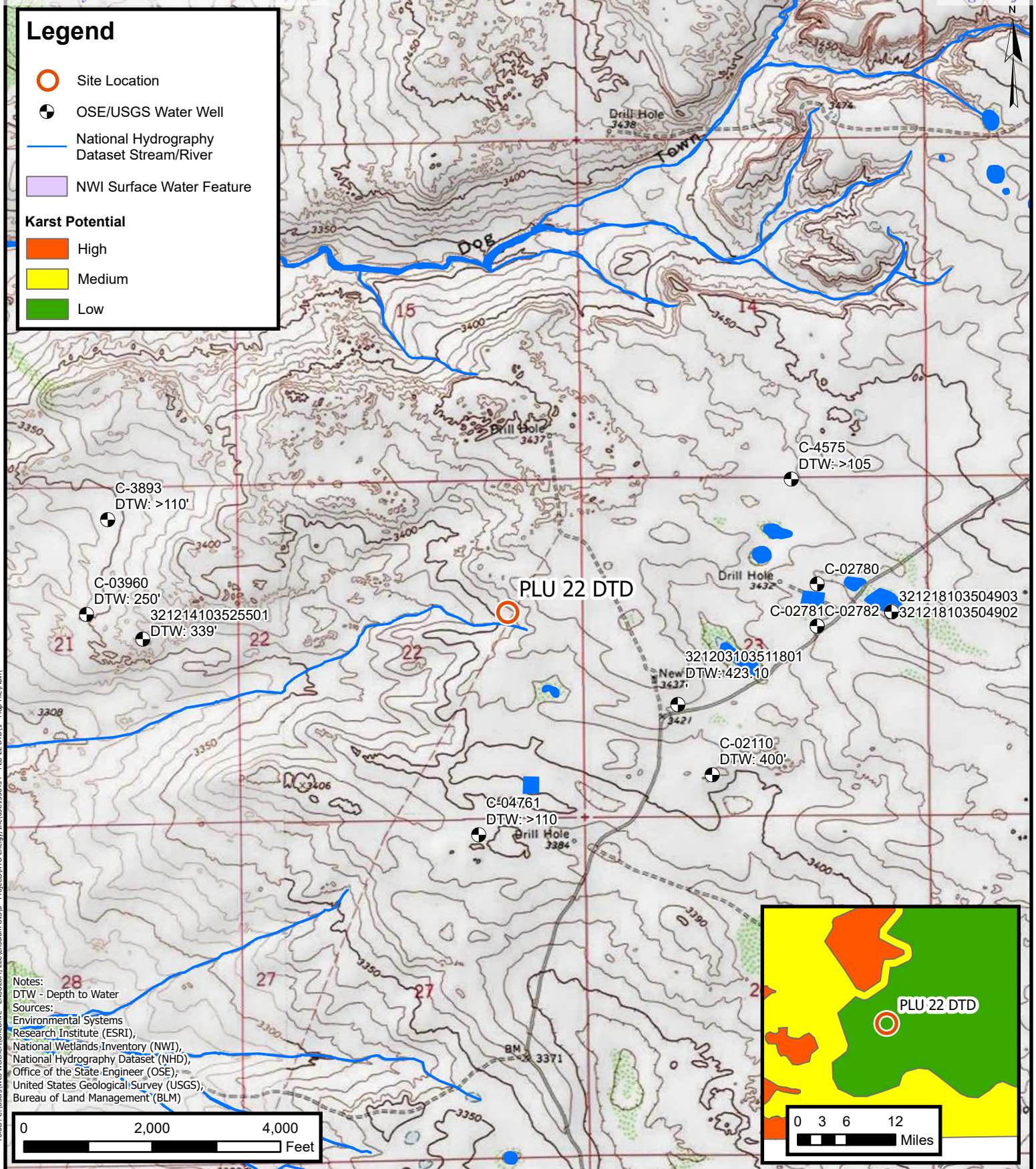
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|            |  |
|------------|--|
| Appendix B | Photographic Log   |
| Appendix C | Lithologic Soil Sampling Logs                                  |
| Appendix D | Laboratory Analytical Reports & Chain-of-Custody Documentation |



FIGURES





**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants

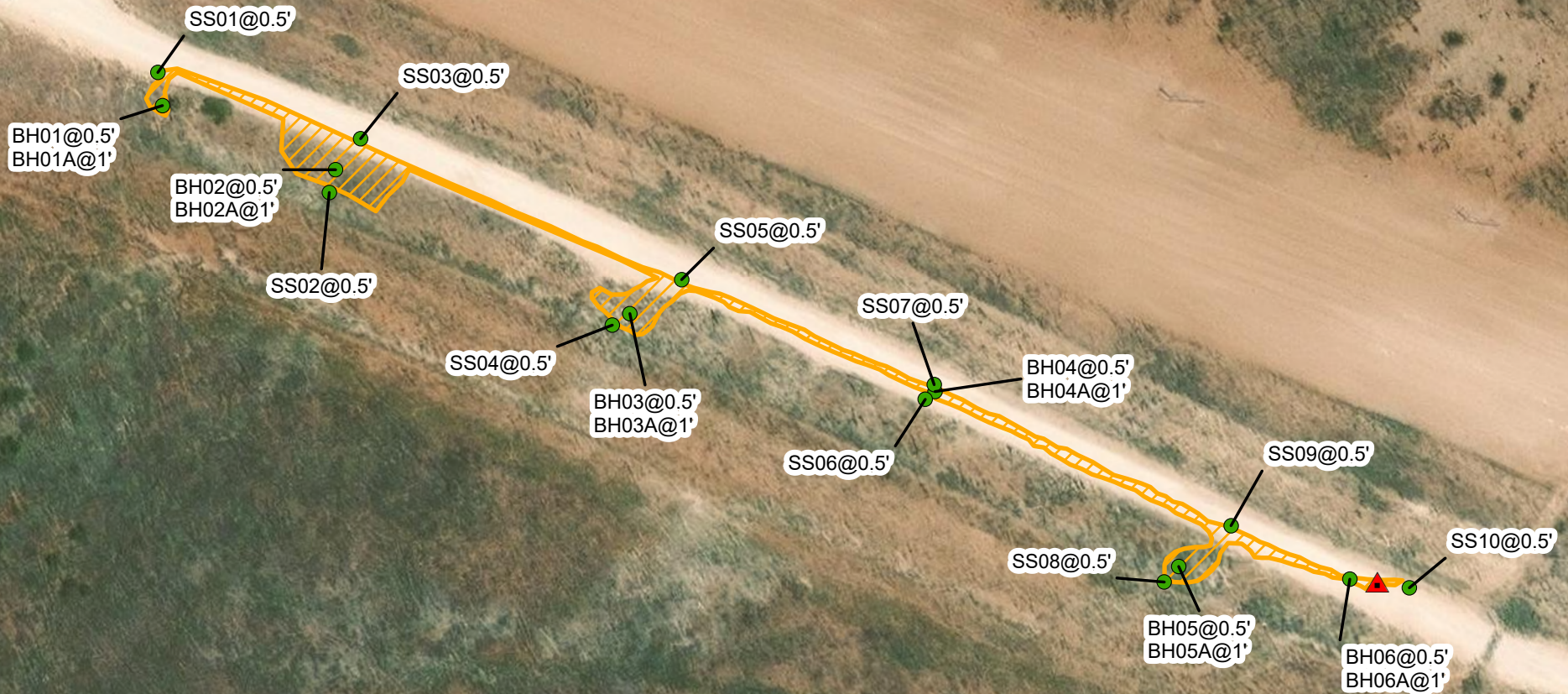
**Site Receptor Map**  
XTO Energy, Inc  
PLU 22 DTD  
Incident Number: NAPP2418049577  
Unit G, Sec 22, T24S, R30E  
Eddy Co, New Mexico, United States

**FIGURE**  
**1**

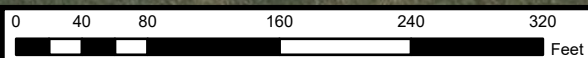


# Legend

- Delineation Soil Sample  
Compliant with Closure Criteria
- ▲ Point of Release
- Release Extent



Notes:  
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



## Delineation Soil Sample Locations

XTO Energy, Inc  
PLU 22 DTD  
Incident Number: NAPP2418049577  
Unit G, Sec 22, T24S, R30E  
Eddy Co, New Mexico, United States

FIGURE  
2



TABLES





**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**PLU 22 DTD**  
**XTO Energy, Inc**  
**Eddy County, New Mexico**

| Sample I.D.                                    | Sample Date | Sample Depth (feet bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH ORO (mg/kg) | GRO+DRO (mg/kg) | Total TPH (mg/kg) | Chloride (mg/kg) |
|--|-------------|-------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|
| NMOCD Table I Closure Criteria (NMAC 19.15.29) |             |                         | 10              | 50                 | NE              | NE              | NE              | NE              | 100               | 600              |
| Delineation Soil Samples                       |             |                         |                 |                    |                 |                 |                 |                 |                   |                  |
| SS01   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | <16.0            |
| SS02   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | <16.0            |
| SS03   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 208              |
| SS04   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 16.0             |
| SS05   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 176              |
| SS06   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 32.0             |
| SS07   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 288              |
| SS08   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | <16.0            |
| SS09   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 144              |
| SS10   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 224              |
| BH01   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 32.0             |
| BH01A  | 07/24/2024  | 1                       | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 16.0             |
| BH02   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | <16.0            |
| BH02A  | 07/24/2024  | 1                       | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 16.0             |
| BH03   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 16.0             |
| BH03A  | 07/24/2024  | 1                       | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 32.0             |
| BH04   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 160              |
| BH04A  | 07/24/2024  | 1                       | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 128              |
| BH05   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 32.0             |
| BH05A  | 07/24/2024  | 1                       | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | <16.0            |
| BH06   | 07/24/2024  | 0.5                     | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 80.0             |
| BH06A  | 07/24/2024  | 1                       | <0.050          | <0.300             | <10.0           | <10.0           | <10.0           | <10.0           | <10.0             | 32.0             |

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



## APPENDIX A

### Referenced Well Records

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National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
New Mexico

GO

Click to hideNews Bulletins

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

Groundwater levels for New Mexico

Click to hide state-specific text

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

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 321203103511801

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 321203103511801 24S.30E.23.3124143

Eddy County, New Mexico  
Latitude 32°12'03", Longitude 103°51'18" NAD27  
Land-surface elevation 3,423 feet above NAVD88  
The depth of the well is 474 feet below land surface.  
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.  
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

|                                    |
|------------------------------------|
| <a href="#">Table of data</a>      |
| <a href="#">Tab-separated data</a> |
| <a href="#">Graph of data</a>      |
| <a href="#">Reselect period</a>    |

| Date       | Time | ?<br>Water-level date-time accuracy | ?<br>Parameter code | Water level, feet below land surface | Water level, feet above specific vertical datum | Referenced vertical datum | ?<br>Status | ?<br>Method of measurement | ?<br>Measuring agency | ?<br>Source of measurement |
|------------|------|-------------------------------------|---------------------|--------------------------------------|---|---------------------------|-------------|----------------------------|-----------------------|----------------------------|
| 1959-03-26 |      |                                     | D                   | 62610                                | 2998.18   | NGVD29                    | 1           | Z                          |                       |                            |
| 1959-03-26 |      |                                     | D                   | 62611                                | 2999.90   | NAVD88                    | 1           | Z                          |                       |                            |
| 1959-03-26 |      |                                     | D                   | 72019                                | 423.10  |                           | 1           | Z                          |                       |                            |

Explanation

| Section                        | Code   | Description                                   |
|--------------------------------|--------|---|
| Water-level date-time accuracy | D      | Date is accurate to the Day                   |
| Parameter code                 | 62610  | Groundwater level above NGVD 1929, feet       |
| Parameter code                 | 62611  | Groundwater level above NAVD 1988, feet       |
| Parameter code                 | 72019  | Depth to water level, feet below land surface |
| Referenced vertical datum      | NAVD88 | North American Vertical Datum of 1988         |
| Referenced vertical datum      | NGVD29 | National Geodetic Vertical Datum of 1929      |
| Status                         | 1      | Static  |



| Section                     | Code | Description  |
|-----------------------------|------|--|
| Method of measurement       | Z    | Other.   |
| Measuring agency            |      | Not determined   |
| Source of measurement       |      | Not determined   |
| Water-level approval status | A    | Approved for publication -- Processing and review completed. |

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[Subscribe for system changes](#)

[Accessibility](#)   [FOIA](#)   [Privacy](#)   [Policies and Notices](#)  
[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)  
**Title: Groundwater for New Mexico: Water Levels**  
**URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>**



Page Contact Information: [New Mexico Water Data Maintainer](#)  
Page Last Modified: 2024-07-05 13:50:43 EDT  
0.35 0.33 nadww02



## APPENDIX B

### Photographic Log

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**Photographic Log**

XTO Energy, Inc

PLU 22 DTD

nAPP2418049577



Photograph: 1 Date: 7/9/2024  
Description: Soil staining in release footprint  
View: East



Photograph: 2 Date: 7/9/2024  
Description: Soil staining in release footprint  
View: West



Photograph: 3 Date: 7/24/2024  
Description: Delineation activities  
View: West



Photograph: 4 Date: 7/24/2024  
Description: Delineation activities  
View: East







## APPENDIX C


### Lithologic Soil Sampling Logs


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|   |                |             |          |           |                       |                |                  | Sample Name: BH01  |  | Date: 7/24/2024    |  |
|--|----------------|-------------|----------|-----------|-----------------------|----------------|------------------|--|--|--------------------|--|
|  |                |             |          |           |                       |                |                  | Site Name: PLU 22 DTD                                    |  |                    |  |
|  |                |             |          |           |                       |                |                  | Incident Number: nAPP2418049577                          |  |                    |  |
|  |                |             |          |           |                       |                |                  | Job Number: 03C1558454                                   |  |                    |  |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>  |                |             |          |           |                       |                |                  | Logged By: US  |  | Method: Hand Auger |  |
| Coordinates: 32.205964, -103.866849  |                |             |          |           |                       |                |                  | Hole Diameter: 3"  |  | Total Depth: 2'    |  |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included. |                |             |          |           |                       |                |                  |  |  |                    |  |
| Moisture Content   | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions                                  |  |                    |  |
| Damp   | <168           | 0.0         | Y        | BH01      | 0.5                   | 0              | SP               | (0-2') SAND, dark brown, fine grained, some clay no odor |  |                    |  |
| Damp   | <168           | 0.0         | N        | BH01A     | 1                     | 1              |                  | (@1') trace silt   |  |                    |  |
| Damp   | <168           | 0.0         | N        |           | 2                     | 2              |                  | (@2') few clay   |  |                    |  |
| Total Depth @ 2 feet bgs   |                |             |          |           |                       |                |                  |  |  |                    |  |


|  <b>ENSOLUM</b>   |                | Sample Name: BH02               |                   | Date: 7/24/2024 |                       |                          |                  |  |
|--|----------------|---------------------------------|-------------------|-----------------|-----------------------|--------------------------|------------------|--|
|  |                | Site Name: PLU 22 DTD           |                   |                 |                       |                          |                  |  |
|  |                | Incident Number: nAPP2418049577 |                   |                 |                       |                          |                  |  |
|  |                | Job Number: 03C1558454          |                   |                 |                       |                          |                  |  |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>  |                |                                 |                   |                 |                       |                          |                  |  |
| Coordinates: 32.205827, -103.866447  |                |                                 | Logged By: US     |                 | Method: Hand Auger    |                          |                  |  |
|  |                |                                 | Hole Diameter: 3" |                 | Total Depth: 1'       |                          |                  |  |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included. |                |                                 |                   |                 |                       |                          |                  |  |
| Moisture Content   | Chloride (ppm) | Vapor (ppm)                     | Staining          | Sample ID       | Sample Depth (ft bgs) | Depth (ft bgs)           | USCS/Rock Symbol | Lithologic Descriptions                            |
| Damp   | <168           | 0.4                             | N                 | BH02            | 0.5                   | 0                        | SP               | (0-1') SAND, brown, fine grained, few clay no odor |
| Damp   | <168           | 0.6                             | N                 | BH02A           | 1                     | 1                        |                  | (@1') trace silt                                   |
|  |                |                                 |                   |                 |                       | Total Depth @ 1-foot bgs |                  |  |



|  <b>ENSOLUM</b>   |                | Sample Name: BH03               |                   | Date: 7/24/2024 |                       |                          |                  |  |
|--|----------------|---------------------------------|-------------------|-----------------|-----------------------|--------------------------|------------------|--|
|  |                | Site Name: PLU 22 DTD           |                   |                 |                       |                          |                  |  |
|  |                | Incident Number: nAPP2418049577 |                   |                 |                       |                          |                  |  |
|  |                | Job Number: 03C1558454          |                   |                 |                       |                          |                  |  |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>  |                |                                 |                   |                 |                       |                          |                  |  |
| Coordinates: 32.205537, -103.865763  |                |                                 | Logged By: US     |                 | Method: Hand Auger    |                          |                  |  |
|  |                |                                 | Hole Diameter: 3" |                 | Total Depth: 1'       |                          |                  |  |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included. |                |                                 |                   |                 |                       |                          |                  |  |
| Moisture Content   | Chloride (ppm) | Vapor (ppm)                     | Staining          | Sample ID       | Sample Depth (ft bgs) | Depth (ft bgs)           | USCS/Rock Symbol | Lithologic Descriptions                            |
|  |                |                                 |                   |                 |                       | 0                        | SP               | (0-1') SAND, brown, fine grained, few clay no odor |
| Damp   | <168           | 0.0                             | N                 | BH03            | 0.5                   |                          |                  |  |
| Damp   | <168           | 1.0                             | N                 | BH03A           | 1                     | 1                        |                  | (@1') some silt                                    |
|  |                |                                 |                   |                 |                       | Total Depth @ 1-foot bgs |                  |  |

|   |                |             |          |           |                       |                          |                  | Sample Name: BH04                                    |  | Date: 7/24/2024    |  |  |  |  |  |
|--|----------------|-------------|----------|-----------|-----------------------|--------------------------|------------------|--|--|--------------------|--|--|--|--|--|
|  |                |             |          |           |                       |                          |                  | Site Name: PLU 22 DTD                                |  |                    |  |  |  |  |  |
|  |                |             |          |           |                       |                          |                  | Incident Number: nAPP2418049577                      |  |                    |  |  |  |  |  |
|  |                |             |          |           |                       |                          |                  | Job Number: 03C1558454                               |  |                    |  |  |  |  |  |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>  |                |             |          |           |                       |                          |                  | Logged By: US  |  | Method: Hand Auger |  |  |  |  |  |
| Coordinates: 32.205378, -103.865044  |                |             |          |           |                       |                          |                  | Hole Diameter: 3"                                    |  | Total Depth: 1'    |  |  |  |  |  |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included. |                |             |          |           |                       |                          |                  |  |  |                    |  |  |  |  |  |
| Moisture Content   | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs)           | USCS/Rock Symbol | Lithologic Descriptions                              |  |                    |  |  |  |  |  |
| Damp   | 196            | 0.0         | N        | BH04      | 0.5                   | 0                        | SP               | (0-1') SAND, brown, fine grained, trace clay no odor |  |                    |  |  |  |  |  |
| Damp   | <168           | 0.0         | N        | BH04A     | 1                     | 1                        |                  |  |  |                    |  |  |  |  |  |
|  |                |             |          |           |                       | Total Depth @ 1-foot bgs |                  |  |  |                    |  |  |  |  |  |

|   |                |             |          |           |                       |                          |                  | Sample Name: BH05                                   |  | Date: 7/24/2024    |  |
|--|----------------|-------------|----------|-----------|-----------------------|--------------------------|------------------|---|--|--------------------|--|
|  |                |             |          |           |                       |                          |                  | Site Name: PLU 22 DTD                               |  |                    |  |
|  |                |             |          |           |                       |                          |                  | Incident Number: nAPP2418049577                     |  |                    |  |
|  |                |             |          |           |                       |                          |                  | Job Number: 03C1558454                              |  |                    |  |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>  |                |             |          |           |                       |                          |                  | Logged By: US                                       |  | Method: Hand Auger |  |
| Coordinates: 32.205026, -103.864478  |                |             |          |           |                       |                          |                  | Hole Diameter: 3"                                   |  | Total Depth: 1'    |  |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included. |                |             |          |           |                       |                          |                  |   |  |                    |  |
| Moisture Content   | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs)           | USCS/Rock Symbol | Lithologic Descriptions                             |  |                    |  |
|  |                |             |          |           |                       | 0                        | SP               | (0-1') SAND, brown, fine grained, some clay no odor |  |                    |  |
| Damp   | <168           | 0.0         | N        | BH05      | 0.5                   |                          |                  |   |  |                    |  |
| Damp   | <168           | 0.0         | N        | BH05A     | 1                     | 1                        |                  |   |  |                    |  |
|  |                |             |          |           |                       | Total Depth @ 1-foot bgs |                  |   |  |                    |  |

|  <b>ENSOLUM</b>   |                | Sample Name: BH06               |                   | Date: 7/24/2024 |                       |                          |                  |   |
|--|----------------|---------------------------------|-------------------|-----------------|-----------------------|--------------------------|------------------|---|
|  |                | Site Name: PLU 22 DTD           |                   |                 |                       |                          |                  |   |
|  |                | Incident Number: nAPP2418049577 |                   |                 |                       |                          |                  |   |
|  |                | Job Number: 03C1558454          |                   |                 |                       |                          |                  |   |
| <b>LITHOLOGIC / SOIL SAMPLING LOG</b>  |                |                                 |                   |                 |                       |                          |                  |   |
| Coordinates: 32.204992, -103.864076  |                |                                 | Logged By: US     |                 | Method: Hand Auger    |                          |                  |   |
|  |                |                                 | Hole Diameter: 3" |                 | Total Depth: 1'       |                          |                  |   |
| Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included. |                |                                 |                   |                 |                       |                          |                  |   |
| Moisture Content   | Chloride (ppm) | Vapor (ppm)                     | Staining          | Sample ID       | Sample Depth (ft bgs) | Depth (ft bgs)           | USCS/Rock Symbol | Lithologic Descriptions                               |
| Damp   | <168           | 0.0                             | N                 | BH06            | 0.5                   | 0                        | SP               | (0-1') SAND, brown, fine grained, little clay no odor |
| Damp   | <168           | 0.0                             | N                 | BH06A           | 1                     | 1                        |                  |   |
|  |                |                                 |                   |                 |                       | Total Depth @ 1-foot bgs |                  |   |





## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

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

July 30, 2024

MARIAHA O'DELL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 22 DTD

Enclosed are the results of analyses for samples received by the laboratory on 07/25/24 14:35.

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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 01 0.5' (H244449-01)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |
| Total BTEx     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 02 0.5' (H244449-02)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 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             | <16.0  | 16.0            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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\*=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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 03 0.5' (H244449-03)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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             | 208    | 16.0            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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\*=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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 04 0.5' (H244449-04)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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\*=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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 05 0.5' (H244449-05)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 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             | 176    | 16.0            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 06 0.5' (H244449-06)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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\*=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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 07 0.5' (H244449-07)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 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             | 288    | 16.0            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 08 0.5' (H244449-08)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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            | 07/29/2024 | 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            | 07/29/2024 | ND              | 178 | 88.8       | 200           | 2.32 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 172 | 86.2       | 200           | 1.66 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 09 0.5' (H244449-09)**

| 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           | 07/29/2024 | ND              | 1.96 | 98.1       | 2.00          | 2.95 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 1.89 | 94.5       | 2.00          | 3.27 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 1.98 | 99.1       | 2.00          | 3.41 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 5.81 | 96.9       | 6.00          | 3.37 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 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             | 144    | 16.0            | 07/29/2024 | 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SS 10 0.5' (H244449-10)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTX      | <0.300 | 0.300           | 07/29/2024 | 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             | 224    | 16.0            | 07/29/2024 | 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 94.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 01 0.5' (H244449-11)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |  |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 01A 1' (H244449-12)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | 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             | 16.0   | 16.0            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 97.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.7 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 02 0.5' (H244449-13)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTX      | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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\*=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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 02A 1' (H244449-14)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |  |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.2 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 03 0.5' (H244449-15)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | 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             | 16.0   | 16.0            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 03A 1' (H244449-16)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTX      | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 04 0.5' (H244449-17)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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             | 160    | 16.0            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 97.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 04A 1' (H244449-18)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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             | 128    | 16.0            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |  |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 99.5 % 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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 05 0.5' (H244449-19)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 05A 1' (H244449-20)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTX      | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 97.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.3 % 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:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 06 0.5' (H244449-21)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |  |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 MARIAHA O'DELL  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 07/25/2024  
 Reported: 07/30/2024  
 Project Name: PLU 22 DTD  
 Project Number: 03C1558454  
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BH 06A 1' (H244449-22)**

| 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           | 07/29/2024 | ND              | 2.20 | 110        | 2.00          | 8.58 |           |
| Toluene*       | <0.050 | 0.050           | 07/29/2024 | ND              | 2.27 | 113        | 2.00          | 9.03 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/29/2024 | ND              | 2.42 | 121        | 2.00          | 9.90 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/29/2024 | ND              | 7.18 | 120        | 6.00          | 9.57 |           |
| Total BTEX     | <0.300 | 0.300           | 07/29/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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            | 07/29/2024 | ND              | 480 | 120        | 400           | 10.5 |           |

| 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            | 07/29/2024 | ND              | 177 | 88.3       | 200           | 4.71 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/29/2024 | ND              | 170 | 84.8       | 200           | 3.48 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/29/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.4 % 49.1-148

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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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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 3



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)





**District I**  
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**District II**  
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Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS  
  
Action 385940

QUESTIONS

|   |                |
|---|----------------|
| Operator:<br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:         |
|   | 5380           |
|   | Action Number: |
|   | 385940         |
| Action Type:  |                |
| [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)                    |                |

QUESTIONS

|                  |                               |
|------------------|-------------------------------|
| Prerequisites    |                               |
| Incident ID (n#) | nAPP2418049577                |
| Incident Name    | NAPP2418049577 PLU 22 DTD @ 0 |
| Incident Type    | Release Other                 |
| Incident Status  | Remediation Plan Received     |

Location of Release Source

Please answer all the questions in this group.

|                         |            |
|-------------------------|------------|
| Site Name               | PLU 22 DTD |
| Date Release Discovered | 06/26/2024 |
| 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: Vandalism   Other (Specify)   Crude Oil   Released: 26 BBL   Recovered: 0 BBL   Lost: 26 BBL.                             |
| Produced Water Released (bbls) Details   | Cause: Vandalism   Other (Specify)   Produced Water   Released: 26 BBL   Recovered: 0 BBL   Lost: 26 BBL.                        |
| Is the concentration of chloride in the produced water >10,000 mg/l  | No   |
| 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) | Illegal dump from a third party was discovered along XTO lease road. Eddy County Sheriff's Case#: L240001598 / Deputy A. Johnson |

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

QUESTIONS, Page 2

Action 385940

**QUESTIONS (continued)**

|   |                |  |
|---|----------------|--|
| Operator:<br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:         | 5380   |
|   | Action Number: | 385940   |
|   | Action Type:   | [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |
|   |                |  |

**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:<br>(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: Colton Brown<br>Title: Environmental Advisor<br>Email: colton.s.brown@exxonmobil.com<br>Date: 09/23/2024 |
|--|--|

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

QUESTIONS, Page 3

Action 385940

**QUESTIONS (continued)**

|   |  |
|---|--|
| Operator:<br><br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:   |
|   | 5380   |
|   | Action Number:   |
|   | 385940   |
|   | Action Type:   |
|   | [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

|  |                                |
|--|--------------------------------|
| What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs) | Between 100 and 500 (ft.)      |
| What method was used to determine the depth to ground water  | U.S. Geological Survey         |
| 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 100 and 200 (ft.)      |
| Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)  | Between ½ and 1 (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 1000 (ft.) and ½ (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 ½ and 1 (mi.)          |
| Did the release impact areas not on an exploration, development, production, or storage site                               | Yes                            |

**Remediation Plan**

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

|   |     |
|---|-----|
| Requesting a remediation plan approval with this submission   | Yes |
| Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC. |     |

|  |     |
|--|-----|
| Have the lateral and vertical extents of contamination been fully delineated | Yes |
| Was this release entirely contained within a lined containment area          | No  |

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

|   |     |
|---|-----|
| Chloride (EPA 300.0 or SM4500 Cl B)         | 288 |
| TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M) | 0   |
| GRO+DRO (EPA SW-846 Method 8015M)           | 0   |
| BTEX (EPA SW-846 Method 8021B or 8260B)     | 0   |
| Benzene (EPA SW-846 Method 8021B or 8260B)  | 0   |

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

|   |            |
|---|------------|
| On what estimated date will the remediation commence                        | 07/09/2024 |
| On what date will (or did) the final sampling or liner inspection occur     | 12/23/2024 |
| On what date will (or was) the remediation complete(d)                      | 12/23/2024 |
| What is the estimated surface area (in square feet) that will be reclaimed  | 10200      |
| What is the estimated volume (in cubic yards) that will be reclaimed        | 0          |
| What is the estimated surface area (in square feet) that will be remediated | 0          |
| What is the estimated volume (in cubic yards) that will be remediated       | 0          |

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

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

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**District IV**

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

QUESTIONS, Page 4

Action 385940

**QUESTIONS (continued)**

|   |                |  |
|---|----------------|--|
| Operator:<br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:         | 5380   |
|   | Action Number: | 385940   |
|   | Action Type:   | [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |
|   |                |  |

**QUESTIONS****Remediation Plan (continued)**

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

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

(Select all answers below that apply.)

|   |                                  |
|---|----------------------------------|
| (Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.) | No                               |
| (Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)         | Not answered.                    |
| (In Situ) Soil Vapor Extraction   | Not answered.                    |
| (In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)     | Not answered.                    |
| (In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)                    | Not answered.                    |
| (In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)              | Not answered.                    |
| Ground Water Abatement pursuant to 19.15.30 NMAC                                      | Not answered.                    |
| OTHER (Non-listed remedial process)   | Yes                              |
| Other Non-listed Remedial Process. Please specify                                     | Confirm absence of impacted soil |

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

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

|  |  |
|--|--|
| I hereby agree and sign off to the above statement | Name: Colton Brown<br>Title: Environmental Advisor<br>Email: colton.s.brown@exxonmobil.com<br>Date: 09/23/2024 |
|--|--|

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.

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

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

QUESTIONS, Page 5  
  
Action 385940

QUESTIONS (continued)

|   |  |
|---|--|
| Operator:<br><br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:<br><br>5380   |
|   | Action Number:<br><br>385940   |
|   | Action Type:<br><br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

QUESTIONS

|  |    |
|--|----|
| <b>Deferral Requests Only</b>  |    |
| 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 385940

**QUESTIONS (continued)**

|   |                |
|---|----------------|
| Operator:<br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:         |
|   | 5380           |
|   | Action Number: |
|   | 385940         |
| Action Type:  |                |
| [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)                    |                |

**QUESTIONS**

| Sampling Event Information  |            |
|---|------------|
| Last sampling notification (C-141N) recorded  | 365128     |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | 07/24/2024 |
| What was the (estimated) number of samples that were to be gathered                             | 35         |
| What was the sampling surface area in square feet   | 7000       |

**Remediation Closure Request**

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

|  |    |
|--|----|
| Requesting a remediation closure approval with this submission | No |
|--|----|

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CONDITIONS  
  
Action 385940

CONDITIONS

|   |                |
|---|----------------|
| Operator:<br><br>XTO ENERGY, INC<br>6401 Holiday Hill Road<br>Midland, TX 79707 | OGRID:         |
|   | 5380           |
|   | Action Number: |
|   | 385940         |
| Action Type:  |                |
| [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)                        |                |

CONDITIONS

| Created By    | Condition  | Condition Date |
|---------------|--|----------------|
| scott.rodgers | The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance request to collect confirmation samples every 400 ft2 is approved. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the work plan has been reviewed. | 9/26/2024      |