



# ENSOLUM

## REMEDIATION CLOSURE REPORT

Property:

**Precious NC 31 CTB LACT 3**

**Unit E, S31, T23S, R31E  
32.264346° N, 103.822915° W  
Eddy County, New Mexico  
Facility ID: fAPP2317679662**

**NMOCD Incident ID: nAPP2429749799**

April 16, 2025

Ensolum Project No. 03B1417234

Prepared for:

**Oxy USA, Inc.  
PO Box 4324  
Houston, Texas 77210**

**Attn: Wade Dittrich**

Prepared by:

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Kelly Lowery, GH  
Project Geologist

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Beaux Jennings  
Associate Principal

**TABLE OF CONTENTS**

**1.0 INTRODUCTION..... 1**

**1.1 Site Description and Background..... 1**

**1.2 Project Objective ..... 1**

**2.0 CLOSURE CRITERIA..... 1**

**3.0 SOIL REMEDIATION ACTIVITIES ..... 3**

**4.0 SOIL SAMPLING PROGRAM ..... 4**

**5.0 SOIL LABORATORY ANALYTICAL METHODS..... 5**

**6.0 DATA EVALUATION ..... 5**

**7.0 RECLAMATION AND RE-VEGETATION ..... 6**

**8.0 FINDINGS AND RECOMMENDATION ..... 6**

**9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE ..... 6**

**9.1 Standard of Care ..... 6**

**9.2 Limitations ..... 7**

**9.3 Reliance..... 7**

**APPENDICES**

- Appendix A: Figures**
- Appendix B: Supporting Documentation**
- Appendix C: Photographic Documentation**
- Appendix D: Table**
- Appendix E: Laboratory Data Sheets & Chain-of-Custody Documentation**



**REMEDIATION CLOSURE REPORT****Precious NC 31 CTB LACT 3**

**Unit E, S31, T23S, R31E**  
**32.264346° N, 103.822915° W**  
**Eddy County, New Mexico**  
**Facility ID: fAPP2317679662**

**NMOCD Incident ID: nAPP2429749799**

**1.0 INTRODUCTION****1.1 Site Description and Background**

<b>Operator:</b>	Oxy USA, INC.
<b>Site Name:</b>	Precious NC 31 CTB LACT 3
<b>Location:</b>	Unit E, Section 31, Township 23 South, Range 31 East Facility ID: fAPP2317679662 32.264346° N, 103.822915° W Eddy County, New Mexico
<b>Property:</b>	Federal land managed by the Bureau of Land Management (BLM)
<b>Regulatory:</b>	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On October 19, 2024, Oxy had a release of produced oil at the Site due to a valve leak. Approximately 120 barrels (bbls) of produced oil was released onto the ground surface on-pad with 80 bbls of produced oil recovered. Oxy reported the release to the New Mexico EMNRD OCD by email on October 21, 2024 and online via a report through the online notice of release (NOR) form on October 23, 2024. The release was assigned Incident Number nAPP2429749799.

The **Topographic Map** depicting the location of the Site is included as **Figure 1**, and the **Site Vicinity Map** is included as **Figure 2** in **Appendix A**.

**1.2 Project Objective**

The primary objective of the closure activities was to reduce chemicals of concern (COC) concentrations in the on-Site soil to be in compliance with the applicable New Mexico EMNRD OCD closure criteria.

**2.0 CLOSURE CRITERIA**

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. In order to address activities related to exempt oil and gas releases, the New Mexico EMNRD OCD references New Mexico Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action. Ensolum, LLC (Ensolum) utilized information provided by Oxy, the general Site characteristics, and information available from the New Mexico Office of the State Engineer (OSE) and the New Mexico EMNRD OCD Imaging database to determine the appropriate closure criteria for the Site.



Supporting documentation and figures associated with the following bullets are provided in **Appendix B**.

- No exploratory water wells were identified within a 0.5-mile radius of the Site on the OSE Water Rights Reporting System (WRRS) database. However, one depth to groundwater soil boring (SB-14) was advanced by Trinity Oilfield Services (Trinity) on March 20, 2024 to a total depth of 105 feet below ground surface (bgs) approximately 0.26-miles northeast of the Site. After a period of 72-hours, the soil boring was observed to be dry and was subsequently backfilled. The soil boring is depicted on **Figure 4 (Appendix A)** with the soil boring log included in **Appendix B**.
- The Site is not located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse.
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church.
- According to the OSE WRSS database, there are no private, domestic freshwater wells used by less than five households for domestic or stock water purposes identified within 500 feet of the Site.
- According to the OSE WRSS database, no freshwater wells have been identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to New Mexico Statute Annotated (NMSA) 1978, Section 3-27-3.
- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's Geographical Information System (GIS), Maps, and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- Based on the Karst Occurrence Potential (kmz) provided by the BLM, the Site is located within a stable area, also referred to as low karst potential.
- The Site is not located within a 100-year floodplain.

Based on the identified siting criteria, cleanup goals for soils remaining in place at the Site include:

CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE (NON-VEGETATIVE ZONE)			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
> 100 feet	Chloride	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO)	EPA SW-846 Method 8015M	1,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE (VEGETATIVE ZONE)			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

### 3.0 SOIL REMEDIATION ACTIVITIES

On October 19, 2024, Oxy had a release of produced oil at the Site due to a valve leak. Approximately 120 bbls of produced oil were released onto the ground surface on-pad with 80 bbls of produced oil recovered.

On November 7, 2024, prior to remediation activities, a soil sampling variance of 400 square feet for excavation floor samples was requested by Ensolum on behalf of Oxy. The EMNRD OCD subsequently approved the variance on November 12, 2024.

From January 16, 2025 through February 28, 205, remediation activities were conducted at the Site.



On January 16, 2025, subsequent to excavation activities and hydrovac excavation activities to spot subsurface lines, Ensolum arrived on-Site to collect 26 composite excavation floor soil samples (FS01 through FS26) at depths ranging from 0.5 to 2 feet bgs. Additionally, Ensolum collected six composite excavation sidewall soil samples (SW01 through SW06) ranging in depth from 0 to 1 foot bgs. Based on laboratory analytical data, additional excavation and/or remediation was required.

On February 17, 2025, a sampling notification variance was requested by Ensolum on behalf of Oxy. Oxy Operations had been performing Lease Automatic Custody Transferring (LACT) unit testing within the immediate vicinity of the excavation which had caused all remediation activities to cease until completed. To be proactive before the next testing event, the variance was request and subsequently approved by the EMNRD OCD on February 18, 2025.

On February 18, 2025, subsequent to additional excavation activities, Ensolum arrived on-Site to collect two composite excavation floor soil samples (FS05 and FS10) at a depth of 2 feet and 3 feet bgs respectively. Additionally, one composite excavation sidewall soil sample (SW01) was collected at a depth of 0 to 0.5 feet bgs. Based on laboratory analytical data, additional excavation and/or remediation was required.

On February 28, 2025, subsequent to additional excavation activities utilizing hand tools to extend the soil sample location further south, Ensolum arrived on-Site to collect one composite excavation sidewall soil sample (SW01) at a depth of 0 to 0.5 feet bgs. Based on laboratory analytical results, no additional excavation and/or remediation activities were warranted at that time.

The composite soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), motor oil/lube oil range organics (MRO), and chloride in accordance with the New Mexico EMNRD OCD Closure Criteria for Soils Impacted by a Release (NMOCD Closure Criteria).

The final excavation measured approximately 10,475 square feet in arial extent, at a depth ranging from 0.5 feet to 3 feet bgs. A total of approximately 348 cubic yards (cy) of soil were excavated from the Site and hauled off for proper disposal at the Lea Land Facility located in Hobbs, New Mexico. After confirmation sampling was completed, the backfill of the excavation was completed utilizing material purchased locally from the Twin Wells Caliche Pit and re-contoured to match pre-existing conditions.

**Figure 3** is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the impacted soil and excavation extent with respect to the release (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

#### 4.0 SOIL SAMPLING PROGRAM

Ensolum's soil sampling program from January 16, 2025 through February 28, 2025 included the collection of a total of 28 excavation floor soil samples from 26 locations and eight excavation sidewall soil samples from six locations.

The composite soil samples were collected and placed in laboratory-prepared glassware, labeled/sealed using laboratory-supplied labels and custody seals, and stored on ice in a cooler. The samples were relinquished to Cardinal Laboratories in Hobbs, New Mexico, under proper chain-of-custody procedures.



## 5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for BTEX following the United States Environmental Protection Agency (EPA) SW-846 Method 8021B, TPH GRO/DRO/MRO following EPA SW-846 Method 8015M/D, and chloride using SM4500Cl-B.

Laboratory analytical results are summarized in **Table 1**, **Table 2**, and **Table 3** in **Appendix D**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix E**.

## 6.0 DATA EVALUATION

Ensolum compared the benzene, total BTEX, TPH-GRO/DRO/MRO, and chloride concentrations to laboratory sample detection limits (SDLs) associated with the soils remaining in place at the Site to the applicable NMOCD Closure Criteria. The final composite soil samples collected from the Non-Vegetative Zone were compared to the NMOCD Closure Criteria for Soils Impacted by a Release (Non-Vegetative Zone), while the final composite soil samples collected from the Vegetative Zone were compared to the NMOCD Closure Criteria for Soils Impacted by a Release (Vegetative Zone).

- Laboratory analytical results indicate benzene concentrations for excavation floor soils and excavation sidewall soils remaining in place at the Site and the backfill material are below the laboratory SDLs or the applicable NMOCD Closure Criteria of 10 milligrams per kilogram (mg/kg).
- Laboratory analytical results indicated that total BTEX concentrations for excavation floor soils and excavation sidewall soils remaining in place at the Site and the backfill material are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 50 mg/kg.
- Laboratory analytical results indicate that the combined TPH-GRO/DRO concentrations for excavation floor soils remaining in place in the Non-Vegetative Zone are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 1,000 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicate that the combined TPH-GRO/DRO/MRO concentrations for excavation floor soils remaining in place in the Non-Vegetative Zone are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 2,500 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicate chloride concentrations for excavation floor soils remaining in place in the Non-Vegetative Zone are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 20,000 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicated combined TPH-GRO/DRO/MRO concentrations for excavation sidewall soils remaining in place in the Vegetative Zone and the backfill material are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 100 mg/kg for depth to groundwater ≤50 feet.
- Laboratory analytical results indicated chloride concentrations for excavation sidewall soils remaining in place in the Vegetative Zone and the backfill material are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 600 mg/kg for depth to groundwater ≤50 feet.



Laboratory analytical results are summarized in **Table 1**, **Table 2**, and **Table 3** in **Appendix D**.

## 7.0 RECLAMATION AND RE-VEGETATION

Subsequent to the results of the final confirmation soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal. A composite soil sample was collected from the backfill material used at the Site. The excavated area was backfilled with clean fill material and then contoured to the original surrounding grade. Since the release area was on an active facility pad in an area reasonably needed for production operations or for subsequent drilling operations, no reclamation or re-vegetation was required at this time per 19.15.29.13 NMAC.

## 8.0 FINDINGS AND RECOMMENDATION

- On October 19, 2024, Oxy had a release of produced oil at the Site due to a valve leak. Approximately 120 bbls of produced oil were released onto the ground surface on-pad with 80 bbls of produced oil recovered.
- Ensolum's soil sampling program from January 16, 2025 through February 28, 2025 included the collection of a total of 28 excavation floor soil samples from 26 locations and eight excavation sidewall soil samples from six locations.
- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soil to be in compliance with applicable NMOCD Closure Criteria for Soils Impacted by a Release using the New Mexico EMNRD OCD's NMAC 19.15.29 *Releases* as guidance.
- The final excavation measured approximately 10,475 square feet in arial extent, at a depth ranging from 0.5 feet to 3 feet bgs. A total of approximately 348 cy of soil were excavated from the Site and hauled off for proper disposal at the Lea Land Facility located in Hobbs, New Mexico. After confirmation sampling was completed, the backfill of the excavation was completed utilizing material purchased locally from the Twin Wells Caliche Pit and re-contoured to match pre-existing conditions.
- Based on laboratory analytical results, the final composite soil samples collected from the excavation floor, sidewalls, delineation soil samples, and the backfill material did not exhibit benzene, total BTEX, TPH GRO/DRO, TPH GRO/DRO/MRO, or chloride concentrations above the applicable NMOCD Closure Criteria.

**Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.**

## 9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

### 9.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g., laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client, as detailed in our proposal.



## 9.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions in other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings and recommendations are based solely upon data available to Ensolum at the time of these services.

## 9.3 Reliance

This report has been prepared for the exclusive use of Oxy USA Inc., and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Oxy USA Inc. and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the Closure Report and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



## APPENDIX A

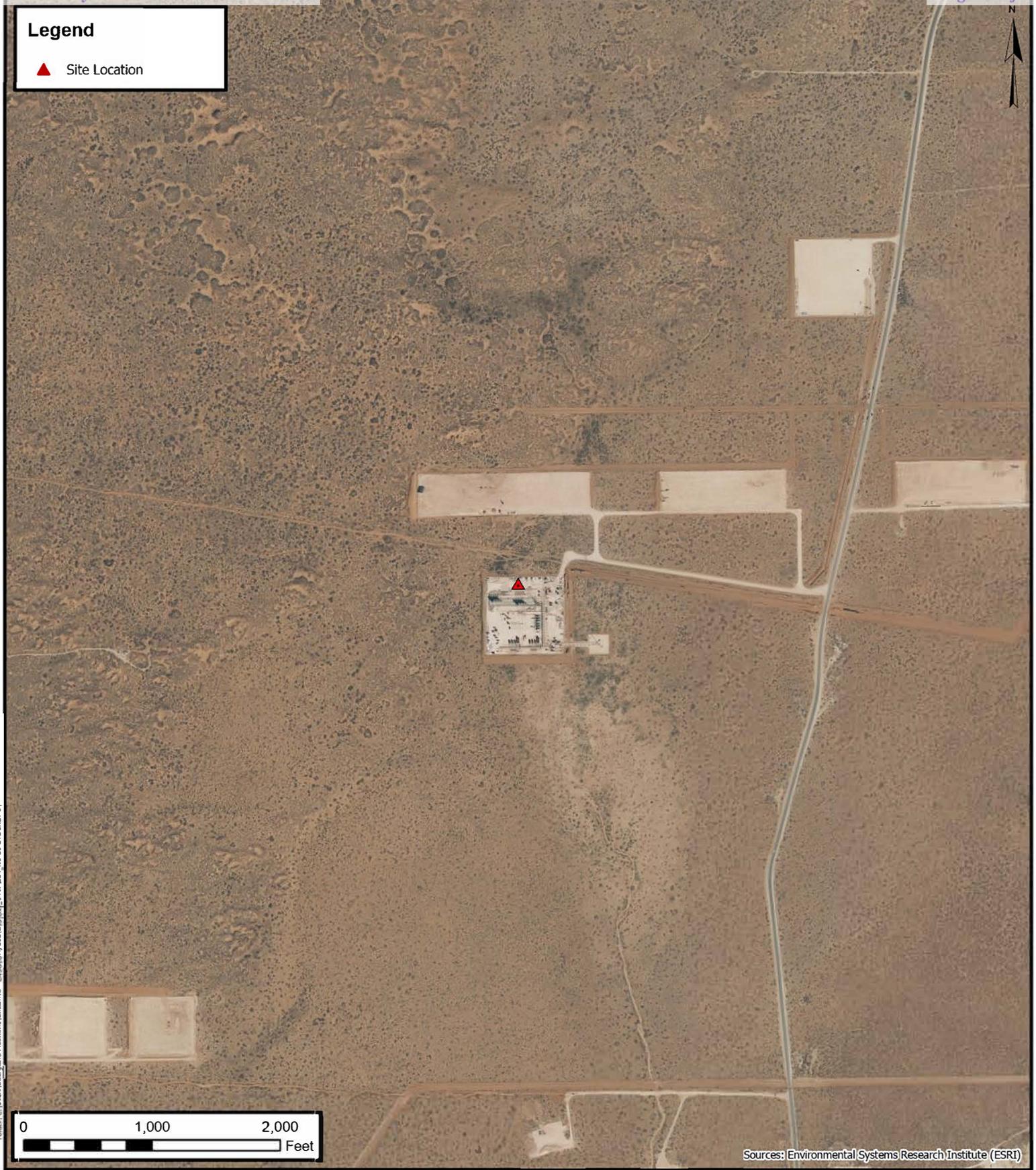
### Figures

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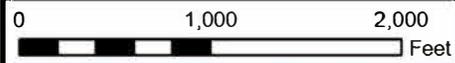
**Legend**

▲ Site Location



Sources: Environmental Systems Research Institute (ESRI)

Folder: C:\Users\Graigiana\OneDrive - ENSOLUM, LLC\GIS\Docs\1417234\_NC\_31\_CTB\_LACT\_3\



**Site Vicinity Map**

Oxy USA Inc.  
Precious NC 31 CTB LACT 3  
32.264346° N, 103.822915° W  
Eddy County, New Mexico

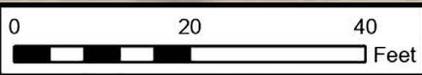
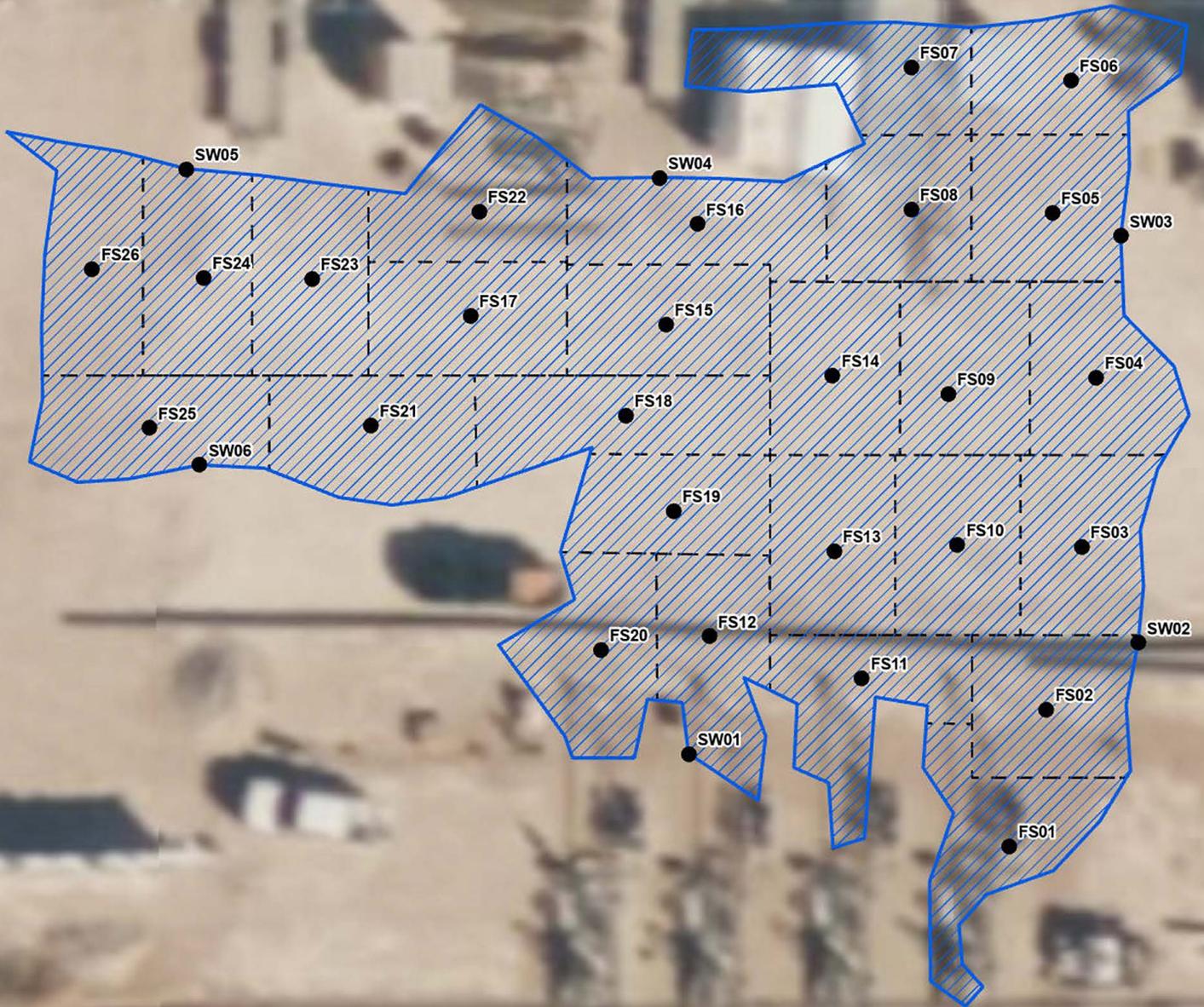
PROJECT NUMBER: 03B1417234

**FIGURE**

**2**

### Legend

- Confirmation Soil Sample Location
- ▨ Excavation Extent
- - - Composite Soil Sample
- - - Grid Boundary



Sources: Environmental Systems Research Institute (ESRI)



**Site Map**  
 Oxy USA Inc.  
 Precious NC 31 CTB LACT 3  
 32.264346° N, 103.822915° W  
 Eddy County, New Mexico

**FIGURE**  
**3**

PROJECT NUMBER: 03B1417234

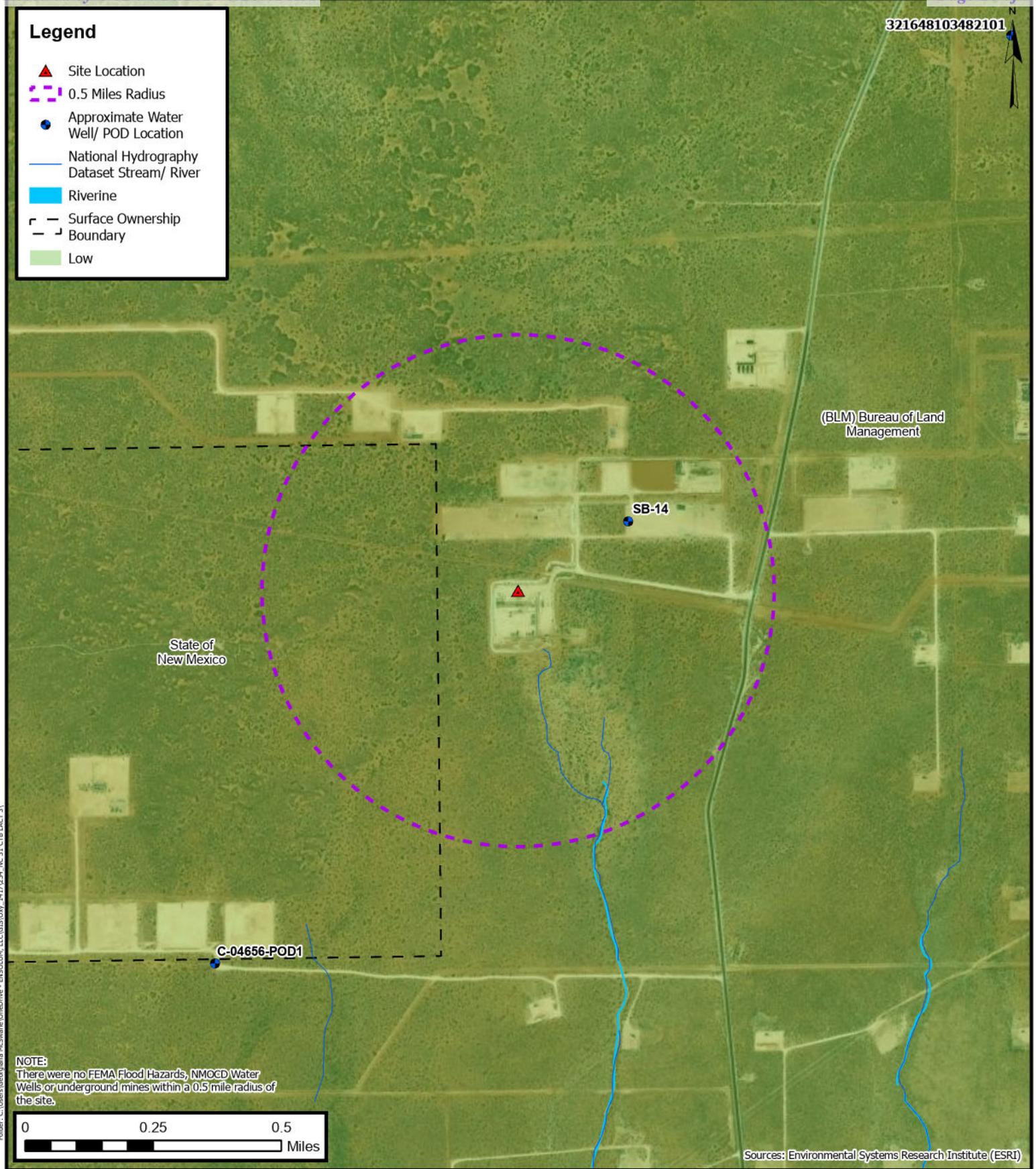
Folder: C:\Users\Georgiana McSwain\OneDrive - ENSOLUM, LLC\GIS\Oxy - 1417234 - NC 31 CTB LACT 3\

321648103482101



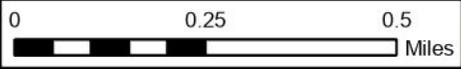
### Legend

-  Site Location
-  0.5 Miles Radius
-  Approximate Water Well/ POD Location
-  National Hydrography Dataset Stream/ River
-  Riverine
-  Surface Ownership Boundary
-  Low



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NOTE:  
There were no FEMA Flood Hazards, NMOCD Water Wells or underground mines within a 0.5 mile radius of the site.



Sources: Environmental Systems Research Institute (ESRI)



## Closure Criteria Map

Oxy USA Inc.  
 Precious NC 31 CTB LACT 3  
 32.264346° N, 103.822915° W  
 Eddy County, New Mexico

PROJECT NUMBER: 03B1417234

**FIGURE**  
**4**



## APPENDIX B

### Supporting Documentation

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## Kelly Lowery

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**From:** Dittrich, John W <Wade\_Dittrich@oxy.com>  
**Sent:** Monday, October 21, 2024 10:28 AM  
**To:** OCD.Enviro@emnrd.nm.gov; BLM\_NM\_CFO\_Spill@blm.gov  
**Cc:** Kelly Lowery; Beaux Jennings  
**Subject:** Initial Notification-Precious NC 31 CTB

[ \*\*EXTERNAL EMAIL\*\* ]

All,

This is to inform you that **Oxy Permian** had a **Reportable** release in **Eddy County** at the **Precious NC 31 CTB** on **10/19/2024**.

**Release Location:** Legal -31-23S-31E

**Release Volume:** 120 bbls of Oil and 0 bbls of Produced Water.

**Recovered:** 80 bbls of Oil recovered and 0 bbls of PW recovered

**Cause of Release:** Ball valve left open between Lact and charge pump

**Approximate Area impacted by release:** -Leak is on pad (measurements are subject to change with GPS tracking)

**GPS Coordinates of Leak and Driving Directions:** 32.26437, -103.823580- Int. Of Hwy 128 and Twin Wells Rd, go South on TWR for 2.5 miles, turn right, go .4 to location.

Please let me know if you have any questions.

**Wade Dittrich**

**Environmental Advisor**

**New Mexico**

**575-390-2828**

**wade\_dittrich@oxy.com**

## Kelly Lowery

---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Tuesday, November 12, 2024 11:53 AM  
**To:** Kelly Lowery  
**Cc:** Dittrich, John W; Tyson\_Pierce@oxy.com; Beaux Jennings; Bratcher, Michael, EMNRD; Rodgers, Scott, EMNRD  
**Subject:** RE: [EXTERNAL] Sampling Variance Request - Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799) - 10/19/2024

[\*\*EXTERNAL EMAIL\*\*]

Good morning Kelly,

A variance is approved to collect samples from the base of the excavation at a frequency of every 400 square feet. Confirmation sidewall samples should be collected at a frequency of every 200 square feet. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Kind regards,

Shelly

[Shelly Wells](#) \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive|Santa Fe, NM 87505  
(505)469-7520|[Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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**From:** Kelly Lowery <[klowery@ensolum.com](mailto:klowery@ensolum.com)>  
**Sent:** Thursday, November 7, 2024 8:25 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Dittrich, John W <[Wade\\_Dittrich@oxy.com](mailto:Wade_Dittrich@oxy.com)>; Pierce, Tyson (Legacy Safety & Consulting LLC) <[tyson\\_pierce@oxy.com](mailto:tyson_pierce@oxy.com)>; Beaux Jennings <[bjennings@ensolum.com](mailto:bjennings@ensolum.com)>  
**Subject:** [EXTERNAL] Sampling Variance Request - Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799) - 10/19/2024

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

On behalf of Oxy USA, Inc. (Oxy), Ensolum, LLC (Ensolum) requests a variance from the 200 square feet sampling requirement cited in 19.15.29.12 (D)(1)(c) for the Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799). To provide some background, the release occurred on 10/19/2024 with 120 barrels of crude oil released and 80 barrels of crude oil recovered via vac truck efforts. The spill remained wholly on-pad and did not go off-pad.

Ensolum requests an alternate of 400 square feet, five-point composite samples collected from the Site. The current release extent is approximately 11,873 square feet, which would roughly equal 59 composite samples collected per the 200 square feet sampling requirement. If approved, the 400 square foot variance would decrease the number of samples collected to approximately 30 samples. Attached are the various maps depicting the site characterizations for the surrounding area. Additionally, a soil boring was completed 0.26-miles northeast of the site by Trinity Oilfield Services on 03/20/2024 to a total depth of 105' with no groundwater encountered. The soil boring log and map are attached here for your reference and was included in the initial C-141 submission on 11/5/2024.

With the provided information, Ensolum kindly asks that the OCD will acknowledge acceptance of this variance request. If you have any questions, please call or email.

Thank you,



**Kelly Lowery, GIT**  
Project Geologist  
214-733-3165  
Ensolum, LLC  
in f 

**Kelly Lowery**

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**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Thursday, January 16, 2025 4:44 PM  
**To:** Kelly Lowery  
**Cc:** Dittrich, John W; Pierce, Tyson (Legacy Safety & Consulting LLC); Beaux Jennings; Bratcher, Michael, EMNRD  
**Subject:** RE: [EXTERNAL] Extension Request - Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799)

[\*\*EXTERNAL EMAIL\*\*]

Good afternoon Kelly,

The extension request for NAPP2429749799 PRECIOUS NC 31 CTB LACT 3 is approved. The new due date to submit your closure report to the OCD is April 16, 2025. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Kind regards,

Shelly

Shelly Wells \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive|Santa Fe, NM 87505  
(505)469-7520 [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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**From:** Kelly Lowery <klowery@ensolum.com>  
**Sent:** Thursday, January 16, 2025 3:31 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Dittrich, John W <Wade\_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson\_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>  
**Subject:** [EXTERNAL] Extension Request - Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

On behalf of Oxy USA Inc, Ensolum LLC would like to request a 90-day extension for the Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799). Excavation and sampling activities are currently on-going but were delayed for a couple weeks due to Operations performing LACT unit testing in the area immediately surrounding the excavation extent, which shut down all other activities. This testing has now concluded, and excavation/sampling activities may now resume, with sampling scheduled for Thursday, January 16<sup>th</sup>. We ask that you please approve this extension request for any future sampling and subsequent reporting.

Thank you,



**Kelly Lowery, GIT**  
Project Geologist  
214-733-3165  
Ensolum, LLC  
in f 

## Kelly Lowery

---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Tuesday, February 18, 2025 9:50 AM  
**To:** Kelly Lowery  
**Cc:** Dittrich, John W; Pierce, Tyson (Legacy Safety & Consulting LLC); Beaux Jennings; Bratcher, Michael, EMNRD  
**Subject:** RE: [EXTERNAL] Sampling Notification Variance - Oxy - Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799)

[\*\*EXTERNAL EMAIL\*\*]

Hi Kelly,

A variance to the two business' day sampling notice is approved for NAPP2429749799 PRECIOUS NC 31 CTB LACT 3 for February 18, 2025. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Kind regards,

Shelly

Shelly Wells \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive|Santa Fe, NM 87505  
(505)469-7520 [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

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**From:** Kelly Lowery <klowery@ensolum.com>  
**Sent:** Monday, February 17, 2025 5:04 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Dittrich, John W <Wade\_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson\_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>  
**Subject:** [EXTERNAL] Sampling Notification Variance - Oxy - Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

On behalf of Oxy USA, Inc. (Oxy), Ensolum, LLC (Ensolum) would like to request a variance for the two business days sampling notification cited in 19.15.29.12 (D)(1)(a) for the Precious NC 31 CTB LACT 3 (Incident ID: nAPP2429749799). Oxy Operations has been performing LACT testing in close proximity to the Site which has caused delays with continued remediation activities. We were informed that the LACT testing has now been completed for the month of February 2025 and that remediation activities could resume. Based on this information and last minute availability with staff to be able to collect samples, Ensolum would like to request this

variance so samples may be collected tomorrow, February 18<sup>th</sup> before the next round of LACT testing commences. These samples may be utilized for closure subsequent to field screening and/or laboratory analytical results.

If there are any questions, please call or email.

Thank you,



**Kelly Lowery, GIT**

Project Geologist

214-733-3165

Ensolum, LLC

in f 



**SOIL BORE LOG SB-14**

<b>PROJECT NAME</b> Precious NC 31 CTB	<b>DRILLING DATE</b> 03/20/2024	<b>COORDINATES</b> 32.26646308, -103.81926161
<b>CLIENT</b> OXY USA, Inc.	<b>TOTAL DEPTH</b> 105'	<b>COORD SYS</b> NAD 83
		<b>ULSTR</b> C-31-23S-31E
		<b>SURFACE ELEVATION</b> 3351'

**COMMENTS** Spud on the West side of the Precious 30 18 Federal Com #003H Well Pad. Bore Hole was observed to be dry after 72 hrs.

**LOGGED BY** CJ  
**CHECKED BY** DD

Depth (ft)	Moisture	Material Description	Elevation (ft)
5	D	Light Red Soil. Dry	3350
		Yellowish Red Soil. Dry	3345
10		Reddish Yellow Soil. Dry	3340
15		Very Light Red Soil. Dry	3335
20		Reddish Yellow Soil. Dry	3330
25		Reddish Yellow Soil. Dry	3325
30		Light Red Soil. Dry	3320
35			3315
40		Light Red Soil. Dry	3310
45		Red Soil. Dry	3305
50		Red Soil. Dry	3300
55			3295
60			3290
65			3285
70			3280
75		Reddish Brown Soil. Dry	3275
80			3270
85			3265
90		Red Soil. Dry	3260
95			3255
100			3250
105		Red Soil. Dry	
		Termination Depth at: 105 ft.	3245

**Disclaimer** This bore log is intended to evidence a depth to groundwater greater than 105'.

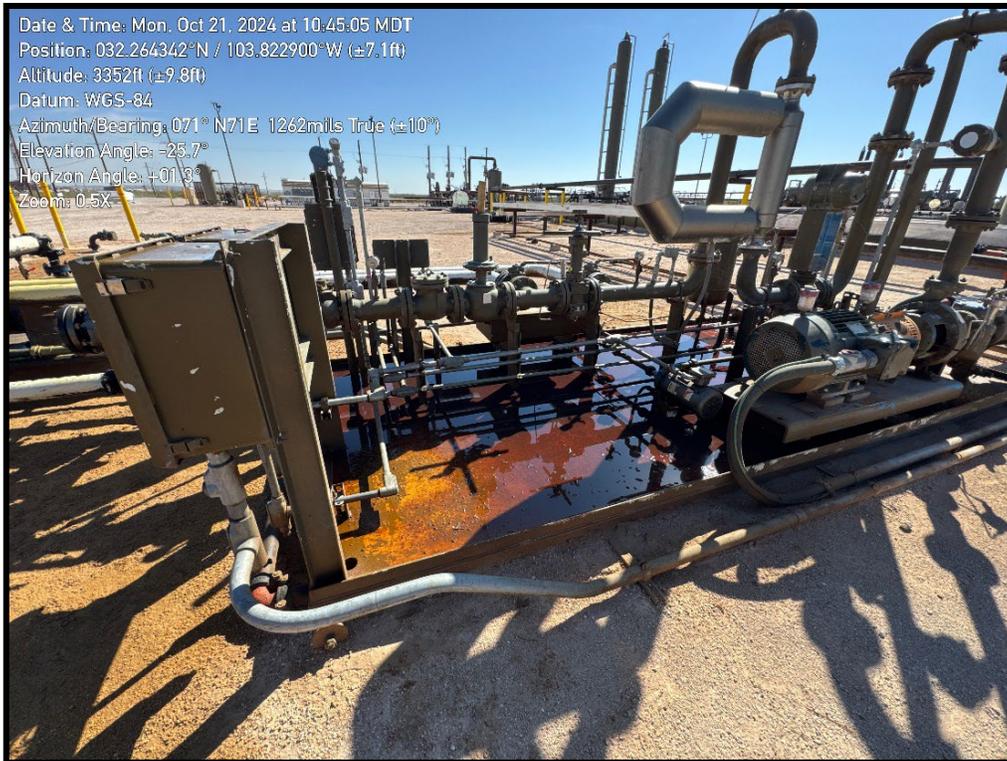


## APPENDIX C

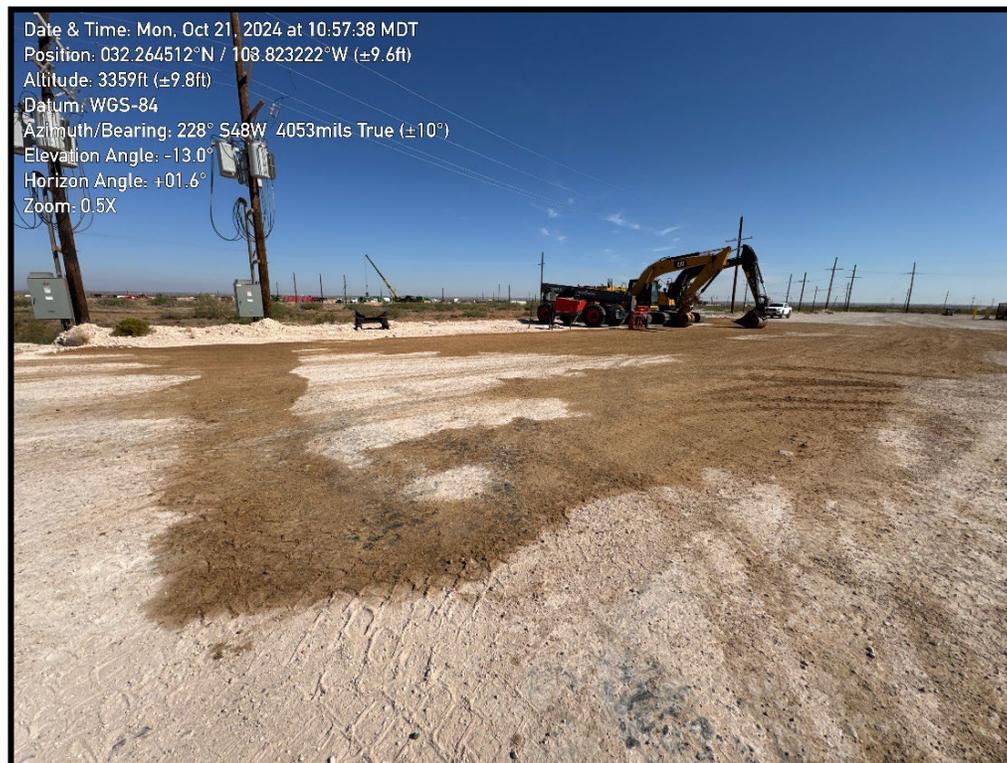
### Photographic Documentation

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Project: Precious NC 31 CTB LACT 3  
Entity: Oxy USA, Inc.  
NMOCD Incident ID: nAPP2429749799



View of release extent prior to remediation activities, facing northeast (10/21/2024).



View of release extent, facing south west (10/21/2024).

Project: Precious NC 31 CTB LACT 3  
Entity: Oxy USA, Inc.  
NMOCD Incident ID: nAPP2429749799



View of excavation extent during remediation activities, facing northwest (01/16/2025).



View of excavation extent during remediation activities, facing northwest (01/16/2025).

Project: Precious NC 31 CTB LACT 3  
Entity: Oxy USA, Inc.  
NMOCD Incident ID: nAPP2429749799

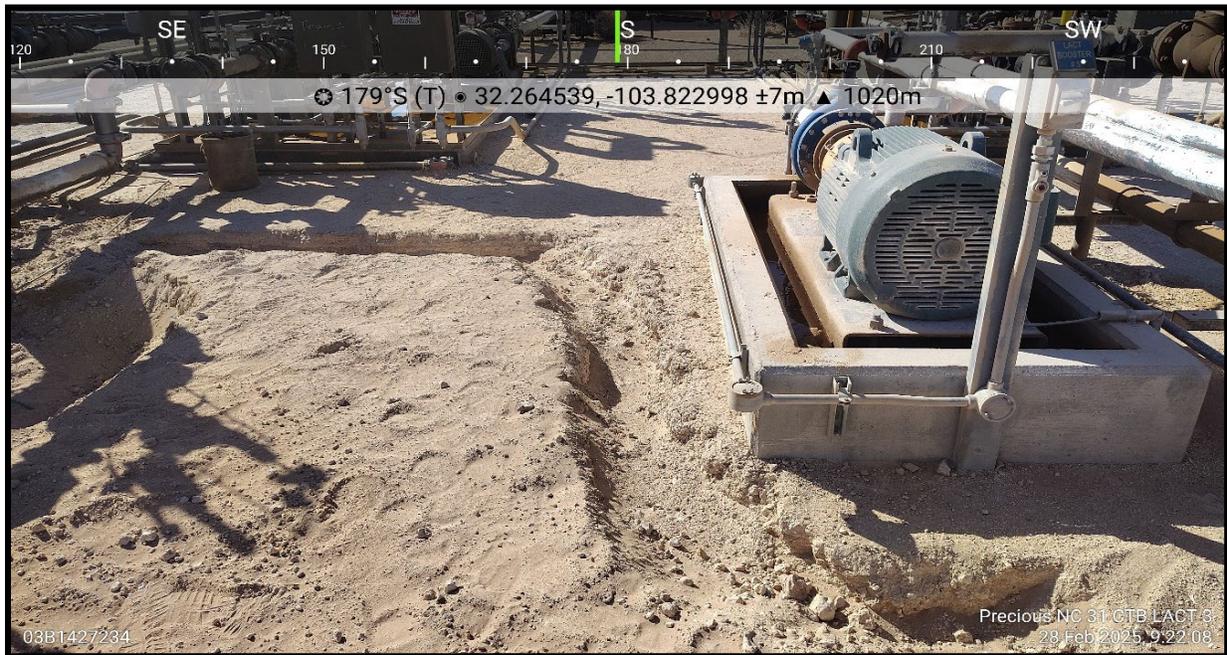


View of additional excavation extent for FS10, facing north (02/18/2025).



View of additional excavation extent for FS05, facing northwest (02/18/2025).

Project: Precious NC 31 CTB LACT 3  
Entity: Oxy USA, Inc.  
NMOCD Incident ID: nAPP2429749799



View of additional excavation extent for SW01, facing south (02/28/2025).



View of additional excavation extent for SW01, facing southwest (02/28/2025).



## APPENDIX D

Table

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**TABLE 1**  
**EXCAVATION SOIL SAMPLE ANALYTICAL RESULTS (NON-VEGETATIVE ZONE)**  
 Precious NC 31 CTB LACT 3  
 Oxy USA, Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417234

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (>100 feet)			10	NE	NE	NE	50	1,000	NE	2,500	20,000	
Excavation Floor Soil Sample Analytical Results												
FS01	01/16/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	263	50.6	314	48.0	
FS02	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	234	27.5	262	160	
FS03	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	159	12.1	171	144	
FS04	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	144	
FS05	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	1,780	389	2,169	80.0	
	02/18/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0	
FS06	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	378	104	482	48.0	
FS07	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	255	34.1	289	144	
FS08	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	171	20.2	191	144	
FS09	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	16.5	<10.0	16.5	96.0	
FS10	01/16/2025	1.5	<0.050	<0.050	<0.050	<0.150	<0.300	2,150	453	2,603	96.0	
	02/18/2025	3	<0.050	<0.050	<0.050	<0.150	<0.300	265	37.1	302	16.0	
FS11	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	131	37.6	169	128	
FS12	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	29.8	<10.0	29.8	80.0	
FS13	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	24.1	<10.0	24.1	144	
FS14	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	11.4	<10.0	11.4	112	
FS15	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	216	40.5	257	64.0	
FS16	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	35.0	<10.0	35.0	112	
FS17	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	24.2	<10.0	24.2	96.0	
FS18	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	24.1	<10.0	24.1	112	
FS19	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	16.2	<10.0	16.2	112	
FS20	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	18.0	<10.0	18.0	128	
FS21	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	128	
FS22	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	14.9	<10.0	14.9	112	
FS23	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	14.9	<10.0	14.9	96.0	
FS24	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	523	97.6	621	80.0	
FS25	01/16/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	151	35.5	187	112	
FS26	01/16/2025	1	<0.050	<0.050	<0.050	<0.150	<0.300	195	44.9	240	128	

Concentrations in **bold** and yellow exceed the New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (>100 feet)

Additional Excavation and/or Re-Sample

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

**TABLE 2**  
**EXCAVATION SOIL SAMPLE ANALYTICAL RESULTS (VEGETATIVE ZONE)**  
 Precious NC 31 CTB LACT 3  
 Oxy USA, Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417234

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)			10	NE	NE	NE	50	NE	NE	NE	100	600
<b>Excavation Sidewall Soil Sample Analytical Results</b>												
SW01	01/16/2025	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>197</b>	<b>32.3</b>	<b>229</b>	<b>32.0</b>
	02/18/2025	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>463</b>	<b>124</b>	<b>587</b>	<b>144</b>
	02/28/2025	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>
SW02	01/16/2025	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>35.0</b>	<10.0	<b>35.0</b>	<b>96.0</b>
SW03	01/16/2025	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>112</b>
SW04	01/16/2025	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>96.0</b>
SW05	01/16/2025	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>80.0</b>
SW06	01/16/2025	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>96.0</b>

Concentrations in **bold** and yellow exceed the New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)

 Additional Excavation and/or Re-Sample

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon



**TABLE 3**  
**BACKFILL SOIL SAMPLE ANALYTICAL RESULTS**  
 Twin Wells Caliche Pit  
 Oxy USA, Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. NA

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
<b>New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)</b>			10	NE	NE	NE	50	NE	NE	NE	100	600
<b>Composite Background Soil Sample Analytical Result</b>												
Twin Wells Caliche Pit	09/09/2024	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0

*bgs: below ground surface*  
*mg/kg: milligrams per kilogram*  
*NA: Not Applicable*  
*NE: Not Established*  
*BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes*  
*GRO: Gasoline Range Organics*  
*DRO: Diesel Range Organics*  
*MRO: Motor Oil/Lube Oil Range Organics*  
*TPH: Total Petroleum Hydrocarbon*



## APPENDIX E

### Laboratory Analytical Reports & Chain-of-Custody Documentation

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

---

January 21, 2025

KELLY LOWERY  
ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND, TX 79705

RE: PRECIOUS NC 31 CTB LACT 3

Enclosed are the results of analyses for samples received by the laboratory on 01/16/25 15:00.

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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 01 2' (H250275-01)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	01/17/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>263</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>50.6</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 69.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 02 0.5' (H250275-02)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>160</b>	16.0	01/17/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>234</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>27.5</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 72.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.9 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 03 0.5' (H250275-03)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>144</b>	16.0	01/17/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>159</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>12.1</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 75.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 04 0.5' (H250275-04)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>144</b>	16.0	01/17/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	200	99.8	200	3.72	
DRO >C10-C28*	<10.0	10.0	01/17/2025	ND	200	100	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 66.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 65.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 05 1' (H250275-05)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	01/17/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>1780</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>389</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 81.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 06 1' (H250275-06)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	01/17/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>378</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>104</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 79.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 07 1' (H250275-07)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>144</b>	16.0	01/17/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>255</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>34.1</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 08 1' (H250275-08)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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
<b>Chloride</b>	<b>144</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>171</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>20.2</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 76.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 09 0.5' (H250275-09)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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
<b>Chloride</b>	<b>96.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>16.5</b>	10.0	01/17/2025	ND	200	100	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 10 1.5' (H250275-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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
<b>Chloride</b>	<b>96.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>2150</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>453</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 74.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 11 1' (H250275-11)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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
<b>Chloride</b>	<b>128</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>131</b>	10.0	01/17/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>37.6</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 71.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.5 % 49.1-148

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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 12 0.5' (H250275-12)**

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	01/18/2025	ND	2.05	102	2.00	4.42	
Toluene*	<0.050	0.050	01/18/2025	ND	2.36	118	2.00	2.55	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.48	124	2.00	3.85	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.44	124	6.00	3.77	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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
<b>Chloride</b>	<b>80.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>29.8</b>	10.0	01/17/2025	ND	200	100	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 78.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.0 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 13 0.5' (H250275-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	QM-07
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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
<b>Chloride</b>	<b>144</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>24.1</b>	10.0	01/17/2025	ND	200	100	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 70.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 14 0.5' (H250275-14)**

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	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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
<b>Chloride</b>	<b>112</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/18/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>11.4</b>	10.0	01/18/2025	ND	200	100	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	01/18/2025	ND					

Surrogate: 1-Chlorooctane 79.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 15 1' (H250275-15)**

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	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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
<b>Chloride</b>	<b>64.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/18/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>216</b>	10.0	01/18/2025	ND	200	100	200	3.86	
<b>EXT DRO &gt;C28-C36</b>	<b>40.5</b>	10.0	01/18/2025	ND					

Surrogate: 1-Chlorooctane 76.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 16 0.5' (H250275-16)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 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
<b>Chloride</b>	<b>112</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/18/2025	ND	200	99.8	200	3.72	
<b>DRO &gt;C10-C28*</b>	<b>35.0</b>	10.0	01/18/2025	ND	200	100	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	01/18/2025	ND					

Surrogate: 1-Chlorooctane 76.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 17 1' (H250275-17)**

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	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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
<b>Chloride</b>	<b>96.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>24.2</b>	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 66.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 18 0.5' (H250275-18)**

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	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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
<b>Chloride</b>	<b>112</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>24.1</b>	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 19 0.5' (H250275-19)**

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	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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
<b>Chloride</b>	<b>112</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>16.2</b>	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 68.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 20 0.5' (H250275-20)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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
<b>Chloride</b>	<b>128</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>18.0</b>	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 69.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.1 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 21 0.5' (H250275-21)**

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	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 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	128	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
DRO >C10-C28*	<10.0	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 77.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 22 1' (H250275-22)**

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	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 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
<b>Chloride</b>	<b>112</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>14.9</b>	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.1 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 23 1' (H250275-23)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 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
<b>Chloride</b>	<b>96.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>14.9</b>	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.2 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 24 1' (H250275-24)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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
<b>Chloride</b>	<b>80.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>523</b>	10.0	01/17/2025	ND	208	104	200	0.205	
<b>EXT DRO &gt;C28-C36</b>	<b>97.6</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 82.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 25 0.5' (H250275-25)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 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
<b>Chloride</b>	<b>112</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>151</b>	10.0	01/17/2025	ND	208	104	200	0.205	
<b>EXT DRO &gt;C28-C36</b>	<b>35.5</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 86.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 26 1' (H250275-26)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 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
<b>Chloride</b>	<b>128</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>195</b>	10.0	01/17/2025	ND	208	104	200	0.205	
<b>EXT DRO &gt;C28-C36</b>	<b>44.9</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 81.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 01 0-0.5' (H250275-27)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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
<b>Chloride</b>	<b>32.0</b>	16.0	01/17/2025	ND	432	108	400	7.14	

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	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>197</b>	10.0	01/17/2025	ND	208	104	200	0.205	
<b>EXT DRO &gt;C28-C36</b>	<b>32.3</b>	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 62.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 02 0-0.5' (H250275-28)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>96.0</b>	16.0	01/21/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	210	105	200	2.79	
<b>DRO &gt;C10-C28*</b>	<b>35.0</b>	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 03 0-1' (H250275-29)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/21/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	210	105	200	2.79	
DRO >C10-C28*	<10.0	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 88.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 04 0-0.5' (H250275-30)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/21/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/17/2025	ND	210	105	200	2.79	
DRO >C10-C28*	<10.0	10.0	01/17/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/17/2025	ND					

Surrogate: 1-Chlorooctane 79.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 05 0-1' (H250275-31)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38		
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91		
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744		
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46		
Total BTEX	<0.300	0.300	01/18/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/21/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	01/18/2025	ND	210	105	200	2.79		
DRO >C10-C28*	<10.0	10.0	01/18/2025	ND	208	104	200	0.205		
EXT DRO >C28-C36	<10.0	10.0	01/18/2025	ND						

Surrogate: 1-Chlorooctane 70.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/16/2025	Sampling Date:	01/16/2025
Reported:	01/21/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Alyssa Parras
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 06 0-0.5' (H250275-32)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	4.38	
Toluene*	<0.050	0.050	01/18/2025	ND	2.08	104	2.00	2.91	
Ethylbenzene*	<0.050	0.050	01/18/2025	ND	2.33	117	2.00	0.744	
Total Xylenes*	<0.150	0.150	01/18/2025	ND	7.20	120	6.00	1.46	
Total BTEX	<0.300	0.300	01/18/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/21/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/18/2025	ND	210	105	200	2.79	
DRO >C10-C28*	<10.0	10.0	01/18/2025	ND	208	104	200	0.205	
EXT DRO >C28-C36	<10.0	10.0	01/18/2025	ND					

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.1 % 49.1-148

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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1/4

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC	P.O. #:
Project Manager: Kelly Lowery	Company: Oxy USA, Inc.
Address: 601 N. Marienfeld St. STE 400	Attn: Wade Dittrich
City: Midland	State: TX Zip: 79701
Phone #: 214-733-3165	Fax #:
Project #: 03B1417234	Project Owner: Oxy
Project Name: Precious NC 31 CTB LACT 3	City:
Project Location: Eddy County	State: Zip:
Sampler Name: Tabitha Guadian	Phone #: 575-390-2828
FOR LAB USE ONLY	Fax #:

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	BTEX 8021B	TPH 8015 M/D	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
HA50875	FS01	2	C	1	X							1/14/25	0956	X	X	X
	FS02	0.5	C	1	X								0958	X	X	X
	FS03	0.5	C	1	X								1000	X	X	X
	FS04	0.5	C	1	X								1002	X	X	X
	FS05	1	C	1	X								1004	X	X	X
	FS06	1	C	1	X								1006	X	X	X
	FS07	1	C	1	X								1008	X	X	X
	FS08	1	C	1	X								1010	X	X	X
	FS09	0.5	C	1	X								1012	X	X	X
	FS10	1.5	C	1	X								1014	X	X	X

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Relinquished By: *[Signature]* Date: 1/14/25  
 Received By: *[Signature]* Date: 1/14/25  
 Time: 1:50 PM

Delivered By: (Circle One)  UPS  Bus  Other:

Observed Temp. °C: 31°C Corrected Temp. °C: 29.5°C

Sample Condition: Cool  Intact  Bacteria (only)  Sample Condition Cool  Intact  Observed Temp. °C:  Corrected Temp. °C:

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



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

214

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC	P.O. #:
Project Manager: Kelly Lowery	Company: Oxy USA, Inc.
Address: 601 N. Marland St. STE 400	Attn: Wade Dittrich
City: Midland	Address:
Phone #: 214-733-3165	City:
Project #: 03B1417234	State: Zip:
Project Name: Precious NC 31 CTB LACT 3	Phone #: 575-390-2828
Project Location: Eddy County	Fax #:
Sampler Name: Tabitha Guadian	

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		DATE	TIME	REMARKS
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL			
H50075	FS11	1	C	1	X							11/6/15	1030	BTEX 8021 B	
	FS12	0.5	C	1	X								1032	TPH 8015 M/D	
	FS13	0.5	C	1	X								1034	Chloride 4500	
	FS14	0.5	C	1	X								1036		
	FS15	0.5	C	1	X								1038		
	FS16	0.5	C	1	X								1040		
	FS17	1	C	1	X								1042		
	FS18	0.5	C	1	X								1044		
	FS19	0.5	C	1	X								1046		
	FS20	0.5	C	1	X								1048		

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Relinquished By: *[Signature]* Date: *11/6/15* Received By: *[Signature]* Date: *11/6/15*

Relinquished By: *[Signature]* Date: *11/6/15* Received By: *[Signature]* Date: *11/6/15*

Delivered By: (Circle One)  UPS  Bus  Other: \_\_\_\_\_

Observed Temp. °C: *31.2* Sample Condition: Cool  Intact  Bacteria (only)   Yes  No

Corrected Temp. °C: *35.2*  Yes  No

Checked By: *[Signature]* (Initials) *AB*

Turnaround Time: *3 day TAT* Standard  Rush  Bacteria (only)   Yes  No

Thermometer ID #413 *400*  Yes  No

Correlation Factor: *0.5°C/0.1°C*  Yes  No

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

314

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC	P.O. #:
Project Manager: Kelly Lowery	Company: Oxy USA, Inc.
Address: 601 N. Marientfeld St. STE 400	Attn: Wade Dittrich
City: Midland	Address:
Phone #: 214-733-3165	City:
Project #: 03B1417234	State:
Project Name: Precious NC 31 CTB LACT 3	Phone #:
Project Location: Eddy County	Fax #:
Sampler Name: Tabitha Guadian	

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			DATE	TIME	ANALYSIS
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :			
HS0075	FS21	0.5	C 1		X								11/6/15	1050	X	BTEX 8021B
	FS22	1	C 1		X									1052	X	TPH 8015 M/D
	FS23	1	C 1		X									1054	X	Chlorides 4500
	FS24	1	C 1		X									1056	X	
	FS25	0.5	C 1		X									1058	X	
	FS26	1	C 1		X									1100	X	
	SW01	0-0.5'	C 1		X									1102	X	
	SW02	0-0.5'	C 1		X									1104	X	
	SW03	0-1'	C 1		X									1106	X	
	SW04	0-0.5'	C 1		X									1108	X	

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Relinquished By: *[Signature]* Date: 11/6/15  
 Received By: *[Signature]* Date: 11/6/15  
 Verbal Result:  Yes  No Add'l Phone #:  
 All Results are emailed. Please provide Email address: *[Email]*

Delivered By: (Circle One)  UPS  Bus  Other:   
 Observed Temp. °C: 3.1°C  
 Corrected Temp. °C: 8.5°C  
 Sample Condition:  Intact  Cool  Yes  No  Yes  No

FORN-000-R-3-Z-10/11/15  
 † Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4/4

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Kelly Lowery  
 Address: 601 N. Marienfeld St. STE 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 214-733-3165 Fax #: 214-733-3165  
 Project #: 03B1417234 Project Owner: Oxy  
 Project Name: Precious NC 31 CTB LACT 3  
 Project Location: Eddy County  
 Sampler Name: Tabitha Guardian  
 P.O. #: \_\_\_\_\_ Company: Oxy USA, Inc.  
 Attn: Wade Dittrich  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: 575-390-2828 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.	DATE	TIME	ANALYSIS
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:				
H050075	SWDS	0-1'	C 1	1	X								VI/12/110	X	BTEX 8021 B
31	SWDC	0-0.5'	C 1	1	X								VI/12/112	X	TPH 8015 M/D
														X	Chloride 4500
<del>WFC</del>															
<del>VI/12/115</del>															
<del>VI/12/117</del>															
<del>VI/12/118</del>															
<del>VI/12/119</del>															
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PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: AK Date: 11/16/25 Received By: AK  
 Time: 1:50  
 Relinquished By: AK Date: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Time: \_\_\_\_\_

Delivered By: (Circle One) Observed Temp. °C: 31.1 Sample Condition:  Cool  Intact  Yes  No  
 Corrected Temp. °C: 25.5 Bacteria (only) Sample Condition:  Cool  Intact  Yes  No  
 Checked By: AK Turndown Time: 3 day TAT Standard  Rush   
 Thermometer ID #113 #110 Correction Factor 0.5°C 0.11°C  
 Verbal Result:  Yes  No Add'l Phone #: \_\_\_\_\_  
 All Results are emailed. Please provide Email address: klowey@ensolum.com  
 REMARKS: 3 day TAT  
 Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinallabsnm.com



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

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February 25, 2025

KELLY LOWERY  
ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND, TX 79705

RE: PRECIOUS NC 31 CTB LACT 3

Enclosed are the results of analyses for samples received by the laboratory on 02/20/25 10:02.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	02/20/2025	Sampling Date:	02/18/2025
Reported:	02/25/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 05 2' (H251007-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2025	ND	2.25	113	2.00	6.03	
Toluene*	<0.050	0.050	02/21/2025	ND	2.23	111	2.00	1.24	
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.28	114	2.00	0.453	
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.98	116	6.00	0.0800	
Total BTEX	<0.300	0.300	02/21/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/20/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2025	ND	227	113	200	1.98	
DRO >C10-C28*	<10.0	10.0	02/20/2025	ND	233	116	200	4.44	
EXT DRO >C28-C36	<10.0	10.0	02/20/2025	ND					

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 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, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	02/20/2025	Sampling Date:	02/18/2025
Reported:	02/25/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - EDDY CO.		

**Sample ID: FS 10 3' (H251007-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2025	ND	2.25	113	2.00	6.03	
Toluene*	<0.050	0.050	02/21/2025	ND	2.23	111	2.00	1.24	
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.28	114	2.00	0.453	
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.98	116	6.00	0.0800	
Total BTEX	<0.300	0.300	02/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 131 % 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
<b>Chloride</b>	<b>16.0</b>	16.0	02/20/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>15.6</b>	10.0	02/20/2025	ND	227	113	200	1.98	
<b>DRO &gt;C10-C28*</b>	<b>249</b>	10.0	02/20/2025	ND	233	116	200	4.44	
<b>EXT DRO &gt;C28-C36</b>	<b>37.1</b>	10.0	02/20/2025	ND					

Surrogate: 1-Chlorooctane 89.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	02/20/2025	Sampling Date:	02/18/2025
Reported:	02/25/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 01 0-0.5' (H251007-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2025	ND	2.25	113	2.00	6.03	
Toluene*	<0.050	0.050	02/21/2025	ND	2.23	111	2.00	1.24	
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.28	114	2.00	0.453	
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.98	116	6.00	0.0800	
Total BTEX	<0.300	0.300	02/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 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
<b>Chloride</b>	<b>144</b>	16.0	02/20/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2025	ND	227	113	200	1.98	
<b>DRO &gt;C10-C28*</b>	<b>463</b>	10.0	02/20/2025	ND	233	116	200	4.44	
<b>EXT DRO &gt;C28-C36</b>	<b>124</b>	10.0	02/20/2025	ND					

Surrogate: 1-Chlorooctane 77.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.0 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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March 03, 2025

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: PRECIOUS NC 31 CTB LACT 3

Enclosed are the results of analyses for samples received by the laboratory on 02/28/25 12:11.

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 "Mike Snyder".

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	02/28/2025	Sampling Date:	02/28/2025
Reported:	03/03/2025	Sampling Type:	Soil
Project Name:	PRECIOUS NC 31 CTB LACT 3	Sampling Condition:	Cool & Intact
Project Number:	03B1417234	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - EDDY CO.		

**Sample ID: SW 01 0-0.5 (H251223-01)**

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	03/01/2025	ND	1.80	89.9	2.00	3.31	
Toluene*	<0.050	0.050	03/01/2025	ND	1.92	96.0	2.00	2.50	
Ethylbenzene*	<0.050	0.050	03/01/2025	ND	1.89	94.7	2.00	2.80	
Total Xylenes*	<0.150	0.150	03/01/2025	ND	5.55	92.5	6.00	2.45	
Total BTEX	<0.300	0.300	03/01/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/28/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/28/2025	ND	214	107	200	5.09	
DRO >C10-C28*	<10.0	10.0	02/28/2025	ND	200	99.8	200	4.75	
EXT DRO >C28-C36	<10.0	10.0	02/28/2025	ND					

Surrogate: 1-Chlorooctane 95.2 % 71.8-148

Surrogate: 1-Chlorooctadecane 89.0 % 63.9-155

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





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

September 18, 2024

KELLY LOWERY  
ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND, TX 79705

RE: TWIN WELLS CALICHE PIT

Enclosed are the results of analyses for samples received by the laboratory on 09/09/24 15:16.

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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B      Total Coliform and E. coli (Colilert MMO-MUG)  
Method EPA 524.2      Regulated VOCs and Total Trihalomethanes (TTHM)  
Method EPA 552.2      Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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,

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: TWIN WELLS CALICHE PIT Project Number: 03B1417156 Project Manager: KELLY LOWERY Fax To:	Reported: 18-Sep-24 09:06
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TWIN WELLS CALICHE PIT	H245437-01	Soil	09-Sep-24 14:00	09-Sep-24 15:16

09/18/24 - Client added BTEX and TPH to sample (see COC). This is the revised report and will replace the one sent on 09/12/24.

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, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: TWIN WELLS CALICHE PIT Project Number: 03B1417156 Project Manager: KELLY LOWERY Fax To:	Reported: 18-Sep-24 09:06
--	---	------------------------------

**TWIN WELLS CALICHE PIT  
H245437-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	4091017	CT	10-Sep-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091601	JH	16-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091601	JH	16-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091601	JH	16-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091601	JH	16-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091601	JH	16-Sep-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			99.1 %		71.5-134	4091601	JH	16-Sep-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091609	MS	16-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091609	MS	16-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091609	MS	16-Sep-24	8015B	

Surrogate: 1-Chlorooctane			77.2 %		48.2-134	4091609	MS	16-Sep-24	8015B	
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Surrogate: 1-Chlorooctadecane			79.7 %		49.1-148	4091609	MS	16-Sep-24	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: TWIN WELLS CALICHE PIT Project Number: 03B1417156 Project Manager: KELLY LOWERY Fax To:	Reported: 18-Sep-24 09:06
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4091017 - 1:4 DI Water</b>										
<b>Blank (4091017-BLK1)</b>										
Prepared & Analyzed: 10-Sep-24										
Chloride	ND	16.0	mg/kg							
<b>LCS (4091017-BS1)</b>										
Prepared & Analyzed: 10-Sep-24										
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (4091017-BSD1)</b>										
Prepared & Analyzed: 10-Sep-24										
Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	

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**Analytical Results For:**

ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705

Project: TWIN WELLS CALICHE PIT  
Project Number: 03B1417156  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
18-Sep-24 09:06

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4091601 - Volatiles****Blank (4091601-BLK1)**

Prepared &amp; Analyzed: 16-Sep-24

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		99.0	71.5-134			

**LCS (4091601-BS1)**

Prepared &amp; Analyzed: 16-Sep-24

Benzene	2.16	0.050	mg/kg	2.00		108	82.8-130			
Toluene	2.12	0.050	mg/kg	2.00		106	86-128			
Ethylbenzene	2.14	0.050	mg/kg	2.00		107	85.9-128			
m,p-Xylene	4.29	0.100	mg/kg	4.00		107	89-129			
o-Xylene	2.11	0.050	mg/kg	2.00		105	86.1-125			
Total Xylenes	6.40	0.150	mg/kg	6.00		107	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0497		mg/kg	0.0500		99.5	71.5-134			

**LCS Dup (4091601-BSD1)**

Prepared &amp; Analyzed: 16-Sep-24

Benzene	2.10	0.050	mg/kg	2.00		105	82.8-130	2.64	15.8	
Toluene	2.06	0.050	mg/kg	2.00		103	86-128	3.12	15.9	
Ethylbenzene	2.08	0.050	mg/kg	2.00		104	85.9-128	3.13	16	
m,p-Xylene	4.15	0.100	mg/kg	4.00		104	89-129	3.21	16.2	
o-Xylene	2.04	0.050	mg/kg	2.00		102	86.1-125	3.27	16.7	
Total Xylenes	6.19	0.150	mg/kg	6.00		103	88.2-128	3.23	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0494		mg/kg	0.0500		98.8	71.5-134			

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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: TWIN WELLS CALICHE PIT Project Number: 03B1417156 Project Manager: KELLY LOWERY Fax To:	Reported: 18-Sep-24 09:06
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4091609 - General Prep - Organics**

<b>Blank (4091609-BLK1)</b>		Prepared & Analyzed: 16-Sep-24								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
<i>Surrogate: 1-Chlorooctane</i>	43.5		mg/kg	50.0		87.0	48.2-134			
<i>Surrogate: 1-Chlorooctadecane</i>	46.0		mg/kg	50.0		92.1	49.1-148			
<b>LCS (4091609-BS1)</b>		Prepared & Analyzed: 16-Sep-24								
GRO C6-C10	199	10.0	mg/kg	200		99.5	66.4-123			
DRO >C10-C28	190	10.0	mg/kg	200		95.1	66.5-118			
Total TPH C6-C28	389	10.0	mg/kg	400		97.3	77.6-123			
<i>Surrogate: 1-Chlorooctane</i>	47.1		mg/kg	50.0		94.2	48.2-134			
<i>Surrogate: 1-Chlorooctadecane</i>	49.2		mg/kg	50.0		98.4	49.1-148			
<b>LCS Dup (4091609-BSD1)</b>		Prepared & Analyzed: 16-Sep-24								
GRO C6-C10	174	10.0	mg/kg	200		86.8	66.4-123	13.6	17.7	
DRO >C10-C28	160	10.0	mg/kg	200		79.9	66.5-118	17.3	21	
Total TPH C6-C28	333	10.0	mg/kg	400		83.4	77.6-123	15.4	18.5	
<i>Surrogate: 1-Chlorooctane</i>	38.2		mg/kg	50.0		76.5	48.2-134			
<i>Surrogate: 1-Chlorooctadecane</i>	41.4		mg/kg	50.0		82.9	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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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1/1

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Kelly Lowery  
 Address: 601 N. Marland St. STE 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 214-733-3145 Fax #:   
 Project #: DBB141715-6 Project Owner:   
 Project Name: Twin Wells Calich Pit  
 Project Location:   
 P.O. #:   
 Company: Oxy USA, Inc.  
 Attn: Wade Dillich  
 Address:   
 City:   
 State: Zip:   
 Phone #: 575-390-2828  
 Fax #:   
 Sample Name: Tabitha Guadian  
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS REQUEST
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:			
12UR213	Twin wells Calich Pit	—	C1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/12/14	1400	Chlorides TPH (HOLD) BTEX (HOLD)					

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Relinquished By: *[Signature]* Date: 9/19/14 Time: 1510 Received By: *[Signature]* Date: 9/19/14 Time:   
 Delivered By: (Circle One) O:  Corrected Temp. °C: 0.7°C Sample Condition Cool Intact  Bacteria (only) Sample Condition Observed Temp. °C:   
 Sampler - UPS - Bus - Other: Corrected Temp. °C: 0.1°C Cool Intact  Bacteria (only) Sample Condition Observed Temp. °C:   
 Turnaround Time: Standard  Rush  Bacteria (only) Sample Condition Observed Temp. °C:   
 Thermometer ID #415 - 1510 Correction Factor -0.0°C Cool Intact  Bacteria (only) Sample Condition Observed Temp. °C:   
 REMARKS: \* Cust. added analysis - TP. 9/13/14  
 All Results are emailed. Please provide Email address: *[Email]*  
 Vertical Result:  Yes  No Add'l Phone #:   
 Blennings@ensolum.com Kelly Lowery@ensolum.com

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

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

QUESTIONS

Action 452592

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2429749799
Incident Name	NAPP2429749799 PRECIOUS NC 31 CTB LACT 3 @ 0
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	PRECIOUS NC 31 CTB LACT 3
Date Release Discovered	10/19/2024
Surface Owner	Federal

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

<b>Nature and Volume of Release</b>	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Human Error   Valve   Crude Oil   Released: 120 BBL   Recovered: 80 BBL   Lost: 40 BBL.
Produced Water Released (bbls) Details	Not answered.
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)	Not answered.

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QUESTIONS, Page 2

Action 452592

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

**Initial Response**

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

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

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

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 04/16/2025
--	---

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QUESTIONS, Page 3

Action 452592

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Site Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 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	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

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

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

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

Chloride (EPA 300.0 or SM4500 Cl B)	160
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	2603
GRO+DRO (EPA SW-846 Method 8015M)	2150
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	01/16/2025
On what date will (or did) the final sampling or liner inspection occur	02/28/2025
On what date will (or was) the remediation complete(d)	02/28/2025
What is the estimated surface area (in square feet) that will be reclaimed	10475
What is the estimated volume (in cubic yards) that will be reclaimed	348
What is the estimated surface area (in square feet) that will be remediated	10475
What is the estimated volume (in cubic yards) that will be remediated	348

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

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

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QUESTIONS, Page 4

Action 452592

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Remediation Plan (continued)**

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

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

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [fEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(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)	Not answered.

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

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 04/16/2025
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 5

Action 452592

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

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QUESTIONS, Page 6

Action 452592

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>435411</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>02/28/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>5</b>
What was the sampling surface area in square feet	<b>1000</b>

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	10475
What was the total volume (cubic yards) remediated	348
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	10475
What was the total volume (in cubic yards) reclaimed	348
Summarize any additional remediation activities not included by answers (above)	NA

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

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 04/16/2025
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QUESTIONS, Page 7

Action 452592

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

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CONDITIONS

Action 452592

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 452592
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	Remediation closure approved. For future releases at this site, under the Site Characterization portion of the C-141 application ensure to update the minimum distances to the following: any playa lake (1-5 miles S) and a 100-year floodplain (1-5 miles S).	5/14/2025