



January 9, 2025

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

**Re: Remediation Work Plan  
Old Ranch Canyon 7 Federal #001  
Incident Number: nMLB0432755192  
API: 30-015-28011  
32.4107857°N, 104.5352631°W  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Oxy USA, Inc. (Oxy), has prepared the following *Remediation Work Plan (Work Plan)* to document the site assessment activities completed to date and propose a work plan to address impacted soil identified at the Old Ranch Canyon 7 Federal #001 (Site). The purpose of the site assessment activities was to delineate the vertical and lateral extent of impacted soil resulting from an historical release of produced water at the Site. The following Work Plan proposes to excavate impacted soil within the top 1 foot to 5 feet below ground surface (bgs) of the historical release extent.

## **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit B, Section 07, Township 22 South, Range 24 East, in Eddy County, New Mexico (32.4107857°N, 104.5352631°W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On November 10, 2004, there was a connection failure which resulted in the release of 290 barrels (bbls) of produced water onto and off the pad. Approximately 260 bbls of produced water was recovered via the use of vacuum trucks. Devon Energy Production Co. LP reported the release to the New Mexico Oil Conservation Division (NMOCD) on November 25, 2004 and the release was assigned Incident Number nMLB0432755192.

## **SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on NMOCD Portal of the Form C-141, Site Assessment/Characterization submitted on October 4, 2024. Potential site receptors are identified on **Figure 2** in **Appendix A**.

Depth to groundwater at the Site is less than 25 feet bgs based on the nearest groundwater well data. In 1998, a US Geological survey (USGS) permitted well (322448104322101) measured groundwater to a depth of 14 feet bgs located approximately 0.3 miles northwest of the Site and is depicted on **Figure 2** in **Appendix A**. The Well Record is included in **Appendix B**.

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Old Ranch Canyon 7 Federal #001

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The closest continuously flowing or significant watercourse to the Site is a intermittent stream located approximately 551 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is underlain by unstable geology (high potential karst designation area).

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

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

## SITE ASSESSMENT AND DELINEATION ACTIVITIES

On October 14, 2024 and November 6, 2024, Ensolum personnel conducted a Site visit to evaluate the release extent based on information provided on the C-141 and visual observations. Ensolum personnel collected 9 delineation soil samples (DS01 and DS09) outside the release extent from a depth of 0.25 feet bgs, 11 pothole soil samples from 5 locations (PH01 through PH05) within the release extent from depths varying from 0.5 foot to 4 feet bgs utilizing a backhoe to assess the vertical extent of the release, and 61 confirmation composite soil samples (CS01 through CS61) within the release extent from a depth of 0.25 feet bgs. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID), and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on **Figure 1 (Appendix A)**. Photographic documentation was completed during the Site visit and a Photographic Log is included in **Appendix C**.

## FIELD SCREENING RESULTS

Results for the delineation soil samples (DS01 through DS09) indicated that VOCs, TPH, and/or chloride concentrations were below the Closure Criteria at depths of 0.25 feet bgs. Results for the pothole delineation soil samples [PH02 (0.5 and 4 feet bgs), PH03 (3 feet bgs), PH04 (0.5 and 4 feet bgs), and PH05 (0.5 feet bgs)] and confirmation soil samples (CS19, CS28, CS35, CS36, CS39, CS44, CS46, CS47, CS48, and CS57 through CS60 [each collected at 0.25 feet bgs]) indicated that TPH and/or chloride concentrations exceeded the Closure Criteria at depths ranging from 0.25 feet bgs to 4 feet bgs. The terminal depth sample collected from delineation pothole PH01 (1 foot bgs) and PH05 (3 feet bgs) indicated concentrations of all COCs were compliant with the Closure Criteria and successfully defined the vertical extent of impacted soil in those areas.

Once excavation activities are completed, official excavation composite floor and sidewall soil samples will be collected every 200 square feet. Samples will be placed in pre-cleaned glass jars labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The samples will be transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of BTEX, following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standard Method SM-4500 Cl-B.

Oxy USA, Inc.  
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## PROPOSED REMEDIATION WORK PLAN

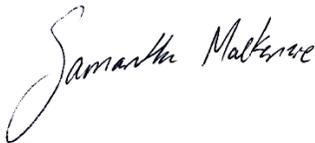
The delineation soil sampling results indicate soils containing elevated TPH and/or chloride concentrations exist across an approximate 20,481 square foot area and extends to a maximum depth of 5 feet bgs. Oxy proposes to complete the following remediation activities:

- Excavation of impacted soil to varying depths of 1 foot to 5 feet bgs based on the pothole delineation field screening soil sample results. Excavation will proceed vertically and laterally until the excavation floor and sidewall samples confirm benzene, total BTEX, TPH, and chloride concentrations are compliant with the applicable Closure Criteria.
- An estimated 1,172 cubic yards of impacted soil will be excavated. The excavated soil will be transferred to a New Mexico approved landfill facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions

Oxy will proceed with the excavation and soil sampling activities and will submit a Closure Report within 90 days of the date of approval of this Work Plan by the NMOCD.

If you have any questions or comments, please contact Ms. Samantha MacKenzie at (703) 357-3545 or [smackenzie@ensolum.com](mailto:smackenzie@ensolum.com).

Sincerely,  
**Ensolum, LLC**



Samantha MacKenzie  
Staff Geologist



Beaux Jennings  
Associate Principal

cc: Wade Dittrich, Oxy USA, Inc.  
Tyson Pierce, Oxy USA, Inc.  
New Mexico Bureau of Land Management

### Appendices:

- Appendix A Figures
- Appendix B Supporting Documentation
- Appendix C Photographic Log
- Appendix D Table
- Appendix E Laboratory Analytical Reports & Chain-of-Custody Documentation

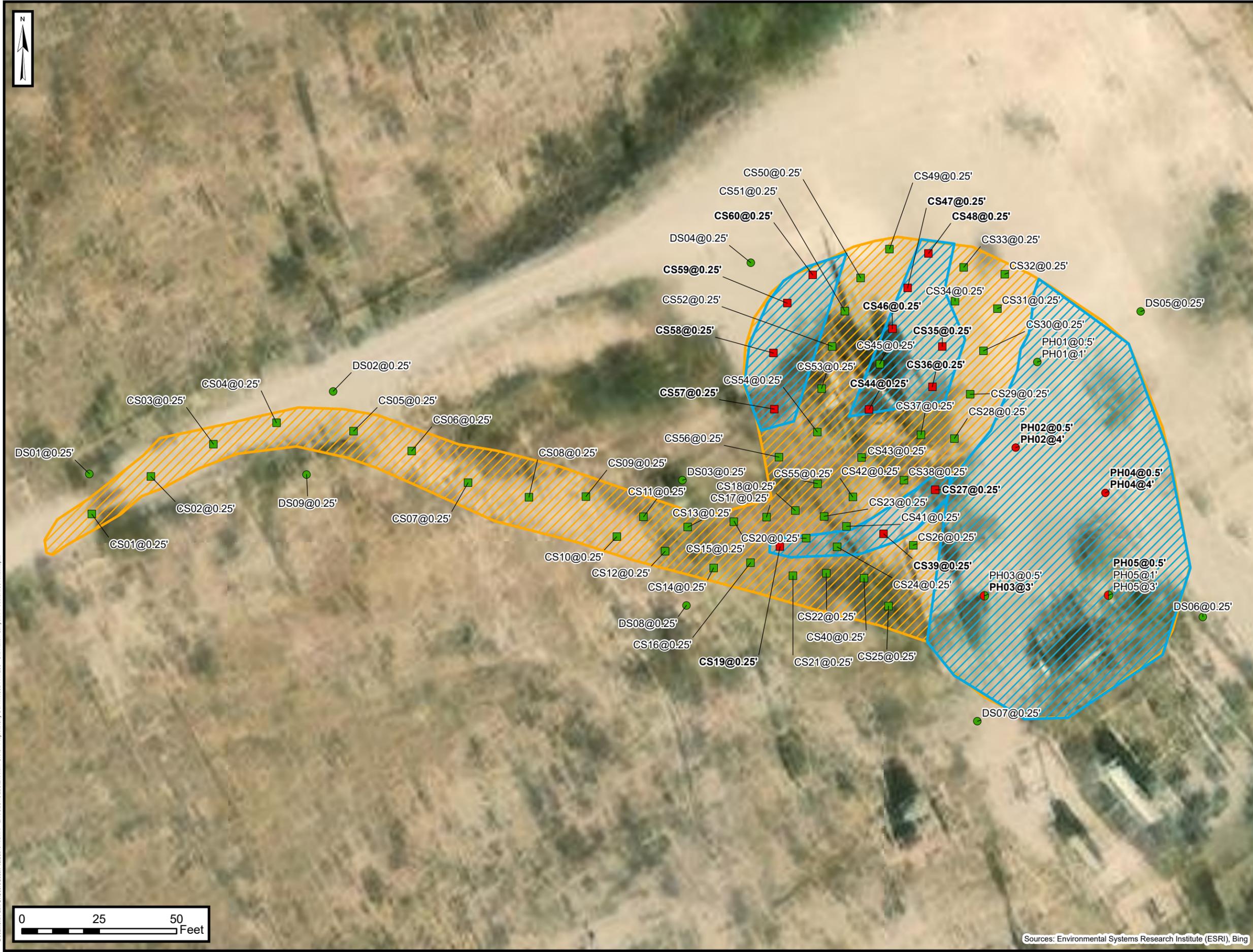


## APPENDIX A

### Figures

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**Legend**

- Confirmation Soil Sample in Compliance with Closure Criteria
- Confirmation Soil Sample with Concentrations Exceeding Closure Criteria
- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Excavation Extent
- Release Extent

Notes:  
Sample ID @ Depth Below Ground Surface.  
Samples in bold indicate sample exceeded applicable closure criteria.

**Excavation Dig Map**

Oxy USA Inc.  
Old Ranch Canyon 7 Federal #001  
Incident Number: NMLB0432755192  
Unit B, Section 07, T 22S, R 24E  
Eddy County, New Mexico

**FIGURE**

**2**

Project Number: 03B1417205

Document Path: C:\Users\Justin.Velazquez\OneDrive - ENSOLUM, L.L.C\Environ\GIS0 - Projects\Oxy USA Inc\03B1417205 - Old Ranch Canyon 7 Federal #001\Map.aprx

Sources: Environmental Systems Research Institute (ESRI), Bing



## APPENDIX B

### Supporting Documentation

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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**ORIGINAL**

30-015-28011

**Release Notification and Corrective Action**

n MLB0432755192

**OPERATOR**

Initial Report  Final Report

Name of Company: Devon Energy Production Co. LP	Contact: Jennifer Van Curen
Address: PO Box 250; Artesia, NM 88211	Telephone No.: 505-748-0160
Facility Name: Old Ranch Canyon 7 Fed 1	Facility Type: Battery

Surface Owner	Mineral Owner	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	7	22S	24E	660	North	1930	East	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release: Water	Volume of Release: 290	Volume Recovered: 260
Source of Release: Victaulic connection on 6" water line	Date and Hour of Occurrence 11/10/04: 4:30 am	Date and Hour of Discovery 11/10/04: 4:30 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Joe Huber	Date and Hour: 11/10/04: 7:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

**RECEIVED**  
NOV 17 2004  
OCD-ARTESIA

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
Victaulic connection on 6" water line failed. Spilled 250 bbls PW inside dike with 40 bbls leaking thru dike and traveling 300' off location. Shut off flow. Vacuumed up all contained and puddled water.

Describe Area Affected and Cleanup Action Taken.\*  
Inspection of connection indicated pipe had been subject to movement or vibration wearing away at clamp surfaces. Plan to cement new pipe and coupling in place to prevent movement. Waiting on further clean-up recommendations from the BLM / OCD.

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

Signature: <i>Jennifer Van Curen</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jennifer Van Curen	Approved by District Supervisor:	
Title: Production Field Tech	Approval Date:	Expiration Date:
E-mail Address: Jennifer.vancuren@dvn.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11/15/04	Phone: 748-0160	

\* Attach Additional Sheets If Necessary

Eddy County, New Mexico  
 Latitude 32°24'48", Longitude 104°32'21" NAD27  
 Land-surface elevation 3,966 feet above NAVD88  
 The depth of the well is 35 feet below land surface.  
 This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.  
 This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

**Output formats**

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

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1978-01-13		D	62610		3950.59	NGVD29	1	Z			A
1978-01-13		D	62611		3952.36	NAVD88	1	Z			A
1978-01-13		D	72019	13.64			1	Z			A
1983-01-25		D	62610		3950.81	NGVD29	1	Z			A
1983-01-25		D	62611		3952.58	NAVD88	1	Z			A
1983-01-25		D	72019	13.42			1	Z			A
Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1992-11-04		D	72019	13.30			1	S			A
1998-01-30		D	62610		3950.25	NGVD29	1	S			A
1998-01-30		D	62611		3952.02	NAVD88	1	S			A
1998-01-30		D	72019	13.98			1	S			A

**Explanation**

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.



## APPENDIX C

### Photographic Log



**Photographic Log**

Oxy USA, Inc  
Old Ranch Canyon 7 Federal #001  
Incident Number NMLB0432755192



Photograph: 1 Date: 11/6/2022  
Description: Soil staining in release footprint  
View: West

Photograph: 2 Date: 11/6/2024  
Description: Soil staining in release footprint  
View: South



Photograph: 3 Date: 11/6/2024  
Description: Pothole activities  
View: West

Photograph: 4 Date: 11/6/2022  
Description: Backfilling activities  
View: North



APPENDIX D

Table

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Old Ranch Canyon 7 Federal #001**  
 Oxy USA, Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417205

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 C <sub>6</sub> -C <sub>12</sub> (mg/kg)	TPH DRO >C <sub>12</sub> -C <sub>28</sub> (mg/kg)	TPH MRO >C <sub>28</sub> -C <sub>35</sub> (mg/kg)	TPH Total C <sub>6</sub> -C <sub>35</sub> (mg/kg)	Chloride (mg/kg)
<b>New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release</b>			<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Delineation Soil Sample Analytical Results</b>												
DS01	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
DS02	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
DS03	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
DS04	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>
DS05	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
DS06	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
DS07	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>112</b>
DS08	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>224</b>
DS09	11/06/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>
<b>Pothole Soil Sample Analytical Results</b>												
PH01	11/06/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>64.0</b>
	11/06/2024	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>
PH02	11/06/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>896</b>
	11/06/2024	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>672</b>
PH03	11/06/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>432</b>
	11/06/2024	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,020</b>
PH04	11/06/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>33,200</b>
	11/06/2024	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,920</b>
PH05	11/06/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>1,570</b>
	11/06/2024	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>464</b>
	11/06/2024	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>432</b>
<b>Confirmation Soil Sample Analytical Results</b>												
CS01	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>64.0</b>
CS02	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>
CS03	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
CS04	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS05	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS06	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS07	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS08	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
CS09	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>
CS10	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS11	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS12	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0

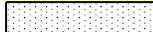
**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Old Ranch Canyon 7 Federal #001**  
 Oxy USA, Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417205

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 C <sub>6</sub> -C <sub>12</sub> (mg/kg)	TPH DRO >C <sub>12</sub> -C <sub>28</sub> (mg/kg)	TPH MRO >C <sub>28</sub> -C <sub>35</sub> (mg/kg)	TPH Total C <sub>6</sub> -C <sub>35</sub> (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release			10	NE	NE	NE	50	NE	NE	NE	100	600
CS13	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS14	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS15	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
CS16	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS17	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS18	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
CS19	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	17.5	91.5	109	<16.0
CS20	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	36.8	36.8	<16.0
CS21	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS22	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS23	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS24	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	56.3	40.2	96.5	32.0
CS25	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
CS26	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	288
CS27	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	4,000
CS28	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	416
CS29	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	432
CS30	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	352
CS31	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	112
CS32	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
CS33	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	368
CS34	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	112
CS35	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1,200
CS36	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	108	351	459	32.0
CS37	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	18.0	18.0	16.0
CS38	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	544
CS39	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	28.9	130	159	784
CS40	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
CS41	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS42	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS43	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	14.3	14.3	144

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Old Ranch Canyon 7 Federal #001**  
 Oxy USA, Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417205

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 C <sub>6</sub> -C <sub>12</sub> (mg/kg)	TPH DRO >C <sub>12</sub> -C <sub>28</sub> (mg/kg)	TPH MRO >C <sub>28</sub> -C <sub>35</sub> (mg/kg)	TPH Total C <sub>6</sub> -C <sub>35</sub> (mg/kg)	Chloride (mg/kg)
<b>New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release</b>			<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
CS44	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>160</b>	<b>555</b>	<b>715</b>	<b>16.0</b>
CS45	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<b>41.0</b>	<b>41.0</b>	<b>16.0</b>
CS46	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>15.9</b>	<b>53.0</b>	<b>68.9</b>	<b>3,600</b>
CS47	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>4,000</b>
CS48	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>266</b>	<b>230</b>	<b>496</b>	<b>160</b>
CS49	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
CS50	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
CS51	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
CS52	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>19.6</b>	<b>31.4</b>	<b>51.0</b>	<b>32.0</b>
CS53	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>44.9</b>	<b>22.0</b>	<b>66.9</b>	<b>48.0</b>
CS54	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>16.0</b>
CS55	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>33.9</b>	<b>27.7</b>	<b>61.6</b>	<16.0
CS56	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>
CS57	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>78.4</b>	<b>48.2</b>	<b>127</b>	<b>32.0</b>
CS58	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>314</b>	<b>178</b>	<b>492</b>	<16.0
CS59	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>363</b>	<b>179</b>	<b>542</b>	<b>64.0</b>
CS60	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<b>822</b>	<b>266</b>	<b>1,088</b>	<b>288</b>
CS61	10/14/2024	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>32.0</b>

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

 represents samples that have been excavated

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

mg/kg: milligrams per kilogram

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbons



## APPENDIX E

# Laboratory Analytical Reports & Chain-of-Custody Documentation

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

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October 21, 2024

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

RE: OLD CANYON RANCH 7 FEDERAL #001

Enclosed are the results of analyses for samples received by the laboratory on 10/15/24 13:45.

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,

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 01 0.25' (H246256-01)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/16/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 88.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.6 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 02 0.25' (H246256-02)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	32.0	16.0	10/16/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.0 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 03 0.25' (H246256-03)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	10/16/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.6 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 04 0.25' (H246256-04)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.4 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 05 0.25' (H246256-05)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	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	
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 91.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 06 0.25' (H246256-06)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 85.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.2 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 07 0.25' (H246256-07)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	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	
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 65.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 08 0.25' (H246256-08)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	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	
Chloride	16.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.7 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 09 0.25' (H246256-09)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	32.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 72.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 57.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 10 0.25' (H246256-10)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 11 0.25' (H246256-11)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	192	96.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.46	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 12 0.25' (H246256-12)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	10/16/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 78.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 13 0.25' (H246256-13)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.3 % 49.1-148

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 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 14 0.25' (H246256-14)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.7 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 15 0.25' (H246256-15)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 16 0.25' (H246256-16)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 93.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 17 0.25' (H246256-17)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 18 0.25' (H246256-18)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 84.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.0 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 19 0.25' (H246256-19)**

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	10/17/2024	ND	2.05	102	2.00	4.84		
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
<b>DRO &gt;C10-C28*</b>	<b>17.5</b>	10.0	10/16/2024	ND	208	104	200	6.40		
<b>EXT DRO &gt;C28-C36</b>	<b>91.5</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 20 0.25' (H246256-20)**

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	10/17/2024	ND	2.05	102	2.00	4.84	
Toluene*	<0.050	0.050	10/17/2024	ND	2.13	106	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	5.11	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.54	109	6.00	5.94	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
<b>EXT DRO &gt;C28-C36</b>	<b>36.8</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 77.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 21 0.25' (H246256-21)**

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	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 97.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 22 0.25' (H246256-22)**

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	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 68.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.4 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 23 0.25' (H246256-23)**

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	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 24 0.25' (H246256-24)**

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	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
<b>DRO &gt;C10-C28*</b>	<b>56.3</b>	10.0	10/16/2024	ND	208	104	200	6.40		
<b>EXT DRO &gt;C28-C36</b>	<b>40.2</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 25 0.25' (H246256-25)**

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	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 26 0.25' (H246256-26)**

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	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 82.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 27 0.25' (H246256-27)**

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	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 28 0.25' (H246256-28)**

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	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 85.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.6 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 29 0.25' (H246256-29)**

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	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 77.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 30 0.25' (H246256-30)**

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	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.7 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 31 0.25' (H246256-31)**

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	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2024	ND	205	103	200	5.00	
DRO >C10-C28*	<10.0	10.0	10/17/2024	ND	208	104	200	6.40	
EXT DRO >C28-C36	<10.0	10.0	10/17/2024	ND					

Surrogate: 1-Chlorooctane 86.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 32 0.25' (H246256-32)**

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	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 74.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 33 0.25' (H246256-33)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	10/16/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 34 0.25' (H246256-34)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/16/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 35 0.25' (H246256-35)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	1200	16.0	10/16/2024	ND	400	100	400	3.92	QM-07	

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	10/16/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 36 0.25' (H246256-36)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
<b>DRO &gt;C10-C28*</b>	<b>108</b>	10.0	10/16/2024	ND	207	104	200	3.61		
<b>EXT DRO &gt;C28-C36</b>	<b>351</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 96.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 37 0.25' (H246256-37)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61	
<b>EXT DRO &gt;C28-C36</b>	<b>18.0</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 38 0.25' (H246256-38)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 39 0.25' (H246256-39)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74	
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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>784</b>	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
<b>DRO &gt;C10-C28*</b>	<b>28.9</b>	10.0	10/16/2024	ND	207	104	200	3.61	
<b>EXT DRO &gt;C28-C36</b>	<b>130</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 40 0.25' (H246256-40)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.20	110	2.00	3.74		
Toluene*	<0.050	0.050	10/17/2024	ND	2.08	104	2.00	6.30		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.09	104	2.00	8.68		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.21	104	6.00	8.92		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 41 0.25' (H246256-41)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	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	
Chloride	<16.0	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.0 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 42 0.25' (H246256-42)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	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	
Chloride	<16.0	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 72.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 43 0.25' (H246256-43)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>144</b>	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61		
<b>EXT DRO &gt;C28-C36</b>	<b>14.3</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.6 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 44 0.25' (H246256-44)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	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>16.0</b>	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
<b>DRO &gt;C10-C28*</b>	<b>160</b>	10.0	10/16/2024	ND	207	104	200	3.61	
<b>EXT DRO &gt;C28-C36</b>	<b>555</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 91.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 45 0.25' (H246256-45)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61	
<b>EXT DRO &gt;C28-C36</b>	<b>41.0</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 91.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 46 0.25' (H246256-46)**

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	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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>3600</b>	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
<b>DRO &gt;C10-C28*</b>	<b>15.9</b>	10.0	10/16/2024	ND	207	104	200	3.61		
<b>EXT DRO &gt;C28-C36</b>	<b>53.0</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 47 0.25' (H246256-47)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 48 0.25' (H246256-48)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>160</b>	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86	
<b>DRO &gt;C10-C28*</b>	<b>266</b>	10.0	10/16/2024	ND	207	104	200	3.61	
<b>EXT DRO &gt;C28-C36</b>	<b>230</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 89.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 49 0.25' (H246256-49)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	207	104	200	3.61		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 77.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 50 0.25' (H246256-50)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/17/2024	ND	229	114	200	2.86		
DRO >C10-C28*	<10.0	10.0	10/17/2024	ND	207	104	200	3.61		
EXT DRO >C28-C36	<10.0	10.0	10/17/2024	ND						

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 51 0.25' (H246256-51)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2024	ND	229	114	200	2.86	
DRO >C10-C28*	<10.0	10.0	10/17/2024	ND	207	104	200	3.61	
EXT DRO >C28-C36	<10.0	10.0	10/17/2024	ND					

Surrogate: 1-Chlorooctane 90.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 52 0.25' (H246256-52)**

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	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	10/16/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143	
<b>DRO &gt;C10-C28*</b>	<b>19.6</b>	10.0	10/16/2024	ND	190	94.8	200	1.06	
<b>EXT DRO &gt;C28-C36</b>	<b>31.4</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 79.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 53 0.25' (H246256-53)**

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	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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>48.0</b>	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143		
<b>DRO &gt;C10-C28*</b>	<b>44.9</b>	10.0	10/16/2024	ND	190	94.8	200	1.06		
<b>EXT DRO &gt;C28-C36</b>	<b>22.0</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 54 0.25' (H246256-54)**

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	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 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	
<b>Chloride</b>	<b>16.0</b>	16.0	10/16/2024	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.06		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 55 0.25' (H246256-55)**

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	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143		
<b>DRO &gt;C10-C28*</b>	<b>33.9</b>	10.0	10/16/2024	ND	190	94.8	200	1.06		
<b>EXT DRO &gt;C28-C36</b>	<b>27.7</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.7 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 56 0.25' (H246256-56)**

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	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/16/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.0 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 57 0.25' (H246256-57)**

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	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	10/16/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143		
<b>DRO &gt;C10-C28*</b>	<b>78.4</b>	10.0	10/16/2024	ND	190	94.8	200	1.06		
<b>EXT DRO &gt;C28-C36</b>	<b>48.2</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 73.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 65.9 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 58 0.25' (H246256-58)**

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	10/17/2024	ND	2.07	103	2.00	3.76	
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94	
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9	
Total BTEX	<0.300	0.300	10/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143	
<b>DRO &gt;C10-C28*</b>	<b>314</b>	10.0	10/16/2024	ND	190	94.8	200	1.06	
<b>EXT DRO &gt;C28-C36</b>	<b>178</b>	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.4 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 59 0.25' (H246256-59)**

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	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>64.0</b>	16.0	10/16/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143		
<b>DRO &gt;C10-C28*</b>	<b>363</b>	10.0	10/16/2024	ND	190	94.8	200	1.06		
<b>EXT DRO &gt;C28-C36</b>	<b>179</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.9 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 60 0.25' (H246256-60)**

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	10/17/2024	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	8.94		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.29	114	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.91	115	6.00	13.9		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>288</b>	16.0	10/16/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143		
<b>DRO &gt;C10-C28*</b>	<b>822</b>	10.0	10/16/2024	ND	190	94.8	200	1.06		
<b>EXT DRO &gt;C28-C36</b>	<b>266</b>	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 93.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	10/15/2024	Sampling Date:	10/14/2024
Reported:	10/21/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

**Sample ID: CS 61 0.25' (H246256-61)**

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	10/17/2024	ND	2.11	106	2.00	3.19		
Toluene*	<0.050	0.050	10/17/2024	ND	2.16	108	2.00	3.17		
Ethylbenzene*	<0.050	0.050	10/17/2024	ND	2.18	109	2.00	3.45		
Total Xylenes*	<0.150	0.150	10/17/2024	ND	6.49	108	6.00	3.46		
Total BTEX	<0.300	0.300	10/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/16/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	182	90.8	200	0.143		
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	190	94.8	200	1.06		
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND						

Surrogate: 1-Chlorooctane 92.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC
Project Manager: Samantha MacKenzie
Address: 601 N. Marienfeld St. STE 400
City: Midland State: TX Zip: 79701
Phone #: 703-357-3545 Fax #:
Project #: 03B1417205 Project Owner:
Project Name: Old Canyon Ranch 7 Federal #001
Project Location:
Sampler Name: Kaoru Shimada

BILL TO ANALYSIS REQUEST
P.O. #:
Company: Oxy USA, Inc.
Attn: Wade Dittrich
Address:
City:
State: Zip:
Phone #: 575-390-2828
Fax #:

Table with columns: Lab I.D., Sample I.D., Sample Depth (feet), MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER), PRESERV. (ACID/BASE, ICE/COOL, OTHER), SAMPLING (DATE, TIME), and analysis methods (BTEX, TPH, Chloride, Hold).

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

Relinquished By: Kaoru Shimada Date: 10-15-24 Time: 1345
Received By: [Signature] Verbal Result: [X] No Add'l Phone #:
All Results are emailed. Please provide Email address: smackenzie@ensolum.com
REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C: -1.3 Corrected Temp. °C: -1.9
Sample Condition: Cool [X] Intact [X]
CHECKED BY: (Initials) [Signature]
Turnaround Time: Standard [X] Rush
Bacteria (only) Sample Condition: Cool Intact [X] Observed Temp. °C:
Thermometer ID #413 #140 Correction Factor 0.5°C -0.6°C

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC
Project Manager: Samantha MacKenzie
Address: 601 N. Marienfeld St. STE 400
City: Midland State: TX Zip: 79701
Phone #: 703-357-3545 Fax #:
Project #: 03B1417205 Project Owner:
Project Name: Old Canyon Ranch 7 Federal #001
Project Location:
Sampler Name: Kaoru Shimada
BILL TO ANALYSIS REQUEST
P.O. #:
Company: Oxy USA, Inc.
Attn: Wade Dittrich
Address:
City:
State: Zip:
Phone #: 575-390-2828
Fax #:
FOR LAB USE ONLY
Lab I.D. Sample I.D. Sample Depth (feet) (G)RAB OR (C)OMP. # CONTAINERS MATRIX PRESERV. SAMPLING
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME
H246256 11 CS 11 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 10-14-2024 1318
12 CS 12 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1319
13 CS 13 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1322
14 CS 14 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1324
15 CS 15 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1325
16 CS 16 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1326
17 CS 17 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1328
18 CS 18 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1327
19 CS 19 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1329
20 CS 20 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 1330

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Relinquished By: Kaoru Shimada Date: 10-15-24 Time: 1345
Received By: [Signature] Date: [Blank] Time: [Blank]
Verbal Result: [ ] Yes [X] No Add'l Phone #:
All Results are emailed. Please provide Email address: smackenzie@ensolum.com
REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C -1.3 Sample Condition Cool Intact [X] Yes [ ] No
Corrected Temp. °C -1.9 CHECKED BY: (Initials) J.O.
Turnaround Time: Standard [ ] Rush [X] Bacteria (only) Sample Condition Cool Intact [ ] Yes [ ] No Observed Temp. °C
Thermometer ID #113 #140 Correction Factor 0.50 -0.6°C

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC
Project Manager: Samantha MacKenzie
Address: 601 N. Marienfeld St. STE 400
City: Midland State: TX Zip: 79701
Phone #: 703-357-3545 Fax #:
Project #: 03B1417205 Project Owner:
Project Name: Old Canyon Ranch 7 Federal #001
Project Location:
Sampler Name: Kaoru Shimada
BILL TO ANALYSIS REQUEST
P.O. #:
Company: Oxy USA, Inc.
Attn: Wade Dittrich
Address:
City:
State: Zip:
Phone #: 575-390-2828
Fax #:
FOR LAB USE ONLY
Lab I.D. Sample I.D. Sample Depth (feet) (G)RAB OR (C)OMP. # CONTAINERS MATRIX PRESERV. SAMPLING
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME
BTEX 8021B TPH 8015M Chloride 4500Cl Hold

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.

Relinquished By: Kaoru Shimada Date: 10-15-24 Time: 1345
Received By: [Signature] Verbal Result: [X] No Add'l Phone #:
All Results are emailed. Please provide Email address: smackenzie@ensolum.com
REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: Observed Temp. °C -1.3 Sample Condition Cool Intact [X] Yes [X] Yes [ ] No [ ] No CHECKED BY: (Initials) 90. Turnaround Time: Standard [X] Bacteria (only) Sample Condition Cool Intact Observed Temp. °C [ ] Yes [ ] Yes [ ] No [ ] No Corrected Temp. °C -1.9 Thermometer ID #118 #140 Correction Factor 0.5°C -0.6°C

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC
Project Manager: Samantha MacKenzie
Address: 601 N. Marienfeld St. STE 400
City: Midland State: TX Zip: 79701
Phone #: 703-357-3545 Fax #:
Project #: 03B1417205 Project Owner:
Project Name: Old Canyon Ranch 7 Federal #001
Project Location:
Sampler Name: Kaoru Shimada
BILL TO ANALYSIS REQUEST
P.O. #:
Company: Oxy USA, Inc.
Attn: Wade Dittrich
Address:
City:
State: Zip:
Phone #: 575-390-2828
Fax #:
FOR LAB USE ONLY
Lab I.D. Sample I.D. Sample Depth (feet) (G)RAB OR (C)OMP. # CONTAINERS MATRIX PRESERV. SAMPLING
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME
#246256 31 CS 31 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 10-14-2024 1350
32 CS 32 1352
33 CS 33 1354
34 CS 34 1355
35 CS 35 1358
36 CS 36 1359
37 CS 37 1401
38 CS 38 1403
39 CS 39 1404
40 CS 40 1406

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Relinquished By: Kaoru Shimada Date: 10-15-24 Received By: [Signature] Verbal Result: [ ] Yes [X] No Add'l Phone #:
All Results are emailed. Please provide Email address: smackenzie@ensolum.com
REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: Observed Temp. °C -1.3 Sample Condition Cool Intact [X] Yes [ ] No CHECKED BY: (Initials) [Signature] Turnaround Time: Standard [X] Bacteria (only) Sample Condition Cool Intact [ ] Yes [ ] No Observed Temp. °C
Thermometer ID #448 #140 Correction Factor 0.5°C -0.6°C [ ] Yes [ ] No Corrected Temp. °C

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC
Project Manager: Samantha MacKenzie
Address: 601 N. Marienfeld St. STE 400
City: Midland State: TX Zip: 79701
Phone #: 703-357-3545 Fax #:
Project #: 03B1417205 Project Owner:
Project Name: Old Canyon Ranch 7 Federal #001
Project Location:
Sampler Name: Kaoru Shimada
BILL TO ANALYSIS REQUEST
P.O. #:
Company: Oxy USA, Inc.
Attn: Wade Dittrich
Address:
City:
State: Zip:
Phone #: 575-390-2828
Fax #:
FOR LAB USE ONLY
Lab I.D. Sample I.D. Sample Depth (feet) (G)RAB OR (C)OMP. # CONTAINERS MATRIX PRESERV. SAMPLING
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME
H246256 41 CS 41 0.25 C 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: 10-14-2024 1407
42 CS 42 1408
43 CS 43 1409
44 CS 44 2410
45 CS 45 1411
46 CS 46 1413
47 CS 47 1414
48 CS 48 1416
49 CS 49 1425
50 CS 50 1427
BTEX 8021B TPH 8015M Chloride 4500Cl Hold

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Relinquished By: Kaoru Shimada Date: 10-15-24 Time: 1345 Received By: [Signature] Verbal Result: [ ] Yes [X] No Add'l Phone #: All Results are emailed. Please provide Email address: smackenzie@ensolum.com
REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: Observed Temp. °C: -1.3 Corrected Temp. °C: -1.9 Sample Condition Cool Intact [X] Yes [ ] No Checked By: (Initials) Turnaround Time: Standard [X] Rush [ ] Bacteria (only) Sample Condition Cool Intact [ ] Yes [ ] No Observed Temp. °C: Correction Factor: 0.5°C -0.6°C

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC
Project Manager: Samantha MacKenzie
Address: 601 N. Marienfeld St. STE 400
City: Midland State: TX Zip: 79701
Phone #: 703-357-3545 Fax #:
Project #: 03B1417205 Project Owner:
Project Name: Old Canyon Ranch 7 Federal #001
Project Location:
Sampler Name: Kaoru Shimada
BILL TO: P.O. #: Company: Oxy USA, Inc. Attn: Wade Dittrich Address: City: State: Zip: Phone #: 575-390-2828 Fax #:
ANALYSIS REQUEST: BTEX 8021B TPH 8015M Chloride 4500CI Hold

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.

Relinquished By: Kaoru Shimada Date: 10-15-24 Time: 1345
Received By: [Signature] Date: Received By:
Verbal Result: [ ] Yes [X] No Add'l Phone #:
All Results are emailed. Please provide Email address: smackenzie@ensolum.com
REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C: -1.3 Corrected Temp. °C: -1.9
Sample Condition Cool Intact: [X] Yes [ ] No
CHECKED BY: (Initials) [Signature]
Turnaround Time: Standard [ ] Rush [X]
Thermometer ID #440 #140 Correction Factor 0.5°C -0.6°C
Bacteria (only) Sample Condition Cool Intact Observed Temp. °C: [ ] Yes [ ] No [ ] No [ ] No Corrected Temp. °C:

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





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

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November 12, 2024

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

RE: OLD CANYON RANCH 7 FEDERAL #001

Enclosed are the results of analyses for samples received by the laboratory on 11/06/24 15:35.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 01 0.25' (H246775-01)**

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	11/09/2024	ND	2.19	109	2.00	10.6	
Toluene*	<0.050	0.050	11/09/2024	ND	2.17	109	2.00	10.1	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	2.29	114	2.00	9.85	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	6.89	115	6.00	10.1	
Total BTEX	<0.300	0.300	11/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/08/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 02 0.25' (H246775-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/08/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 98.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 03 0.25' (H246775-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 04 0.25' (H246775-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5		
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0		
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4		
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4		
Total BTEX	<0.300	0.300	11/09/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/08/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16		
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37		
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND						

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 05 0.25' (H246775-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5		
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0		
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4		
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4		
Total BTEX	<0.300	0.300	11/09/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/08/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16		
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37		
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 06 0.25' (H246775-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5		
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0		
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4		
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4		
Total BTEX	<0.300	0.300	11/09/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/08/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16		
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37		
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND						

Surrogate: 1-Chlorooctane 98.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 07 0.25' (H246775-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5		
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0		
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4		
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4		
Total BTEX	<0.300	0.300	11/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	11/08/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16		
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37		
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 08 0.25' (H246775-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: DS 09 0.25' (H246775-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	190	95.2	200	1.16	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	189	94.7	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 01 0.5' (H246775-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	190	95.2	200	1.16	
DRO >C10-C28*	<10.0	10.0	11/08/2024	ND	189	94.7	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 01 1' (H246775-11)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 02 0.5' (H246775-12)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 02 4' (H246775-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 03 0.5' (H246775-14)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 99.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 03 3' (H246775-15)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 04 0.5' (H246775-16)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	33200	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 04 4' (H246775-17)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 05 0.5' (H246775-18)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1570	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 05 1' (H246775-19)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/12/2024	Sampling Type:	Soil
Project Name:	OLD CANYON RANCH 7 FEDERAL #001	Sampling Condition:	Cool & Intact
Project Number:	03B1417205	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY CO., NM		

**Sample ID: PH 05 3' (H246775-20)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2024	ND	1.67	83.7	2.00	21.5	
Toluene*	<0.050	0.050	11/09/2024	ND	1.75	87.3	2.00	17.0	
Ethylbenzene*	<0.050	0.050	11/09/2024	ND	1.89	94.6	2.00	13.4	
Total Xylenes*	<0.150	0.150	11/09/2024	ND	5.69	94.9	6.00	13.4	
Total BTEX	<0.300	0.300	11/09/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	11/08/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/07/2024	ND	201	100	200	0.524	
DRO >C10-C28*	<10.0	10.0	11/07/2024	ND	188	93.8	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/07/2024	ND					

Surrogate: 1-Chlorooctane 99.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QR-04 The RPD for the BS/BSD was outside of historical limits.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Form containing company information (Ensolium, LLC), project details (Old Ranch Canyon 7 Federal Tract), and a table for lab analysis with columns for Lab I.D., Sample I.D., Depth, Matrix, Preserv., and Sampling.

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.

Form for Relinquished By, Received By, Date, Time, Verbal Result, and Turnaround Time.

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



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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS

Action 419088

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 419088
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nMLB0432755192
Incident Name	NMLB0432755192 OLD RANCH CANYON 7 FEDERAL #001 @ 30-015-28011
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-015-28011] OLD RANCH CANYON 7 FEDERAL #001

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	OLD RANCH CANYON 7 FEDERAL #001
Date Release Discovered	11/10/2004
Surface Owner	Federal

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water 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	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Coupling   Produced Water   Released: 290 BBL   Recovered: 260 BBL   Lost: 30 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 2

Action 419088

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 419088
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<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>

*With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.*

**Initial Response**

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

The source of the release has been stopped	<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: 01/09/2025
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Sante Fe Main Office  
Phone: (505) 476-3441

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QUESTIONS, Page 3

Action 419088

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 419088
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1000 (ft.) and ½ (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	Between 1 and 5 (mi.)
A wetland	Between 300 and 500 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 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)	33200
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	1088
GRO+DRO (EPA SW-846 Method 8015M)	822
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	08/29/2024
On what date will (or did) the final sampling or liner inspection occur	11/06/2024
On what date will (or was) the remediation complete(d)	11/06/2024
What is the estimated surface area (in square feet) that will be reclaimed	20481
What is the estimated volume (in cubic yards) that will be reclaimed	1182
What is the estimated surface area (in square feet) that will be remediated	20481
What is the estimated volume (in cubic yards) that will be remediated	1182

*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 419088

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 419088
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

**Remediation Plan (continued)**

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

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

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	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: 01/09/2025
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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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QUESTIONS, Page 5

Action 419088

**QUESTIONS (continued)**

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	Action Number: 419088
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**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 419088

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 419088
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>422828</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>01/31/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>50</b>
What was the sampling surface area in square feet	<b>15367</b>

**Remediation Closure Request**

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

Requesting a remediation closure approval with this submission	<b>No</b>
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CONDITIONS

Action 419088

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 419088
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**CONDITIONS**

Created By	Condition	Condition Date
nvez	Remediation plan is approved as written except with the following conditions; 1. OXY must complete the excavation and removal of impacted soils until confirmation samples collected from the bottom and sidewalls of the excavation report NMOCD Closure Criteria per 19.15.29.12 NMAC has been achieved. 2. Prior to backfilling the open excavation per 19.15.29.12D (2) NMAC, OXY must collect a minimum of one (1) 5pcs from the media being used as backfill to verify that it meets non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. This is especially important for the material being used within the top four (4) feet from the ground surface. 3. OXY has 90-days (April 23, 2025) to submit to OCD its appropriate or final remediation closure report.	1/23/2025