ENSOLUM

CLOSURE REPORT

Property:

DR PI Federal Unit 18 7 IPP #022H

Unit M, S18, T22S, R32E
32.3856° N, 103.7201° W
Lea County, New Mexico
API: 30-025-48157
NMOCD Incident ID: nAPP2407545309

December 2, 2024

Ensolum Project No. 03B1417160

Prepared for:

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

Attn: Wade Dittrich

Prepared by:

Kelly Lowery, GIT
Project Geologist

Beaux Jennings
Associate Principal

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CLOSURE REPORT

DR PI Federal Unit 18 7 IPP #022H

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API: 30-025-48157
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1.0 INTRODUCTION

1.1 Site Description and Background

Operator:	OXY USA, Inc. (Oxy)
Site Name:	DR PI Federal Unit 18 7 IPP #022H
Location:	Unit M, Section 18, Township 22 South, Range 32 East American Petroleum Institute (API): 30-025-48157 32.3856° N, 103.7251° W Lea County, New Mexico
Property:	Federal land managed by the Bureau of Land Management (BLM)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On March 5, 2024, Oxy had a release of produced water at the Site from a frac tank. Approximately 20 barrels (bbls) of produced water released onto the ground surface, with approximately 10 bbls of produced water recovered. Oxy reported the release to the New Mexico EMNRD OCD online portal notification of release (NOR) form on March 15, 2024. The release was subsequently assigned Incident Number nAPP2407545309.

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

1.2 Project Objective

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

2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. In order to address activities related to exempt oil and gas releases, the New Mexico EMNRD OCD references New Mexico Administrative Code (NMAC) 19.15.29 *Releases,* which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action. Ensolum, LLC (Ensolum) utilized information provided by Oxy, the general Site characteristics, and information available from the New Mexico Office of the State Engineer (OSE) and the New Mexico EMNRD OCD Imaging database to determine the appropriate closure criteria for the Site. Supporting documentation and figures associated with the following bullets are provided in **Appendix B** and included as **Figure 4** in **Appendix A**.

- Two exploratory water wells were identified within a 0.5-mile radius of the Site on the OSE Water Rights Reporting System (WRRS) database (C-02939 and C-02739). Livestock water well C-02739 appears only to have an application with no well record associated with it; however, livestock water well C-02939 has a well record with an installation date of 2003 to a depth of 280 feet below ground surface (bgs) as a temporary well, with no groundwater encountered. Additionally, there is one temporary well approximately 0.53 miles east of the Site installed in 2022 by Trinity Oilfield Services to a total depth of 110' with no groundwater encountered.
- The Site is not located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse.
- The Site is not within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church.
- According to the OSE WRSS database, there are no private, domestic freshwater wells used by less than five households for domestic or stock water purposes identified within 500 feet of the Site.
- According to the OSE WRSS database, no freshwater wells are identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to New Mexico Statute Annotated (NMSA) 1978, Section 3-27-3.
- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's Geographical Information System (GIS), Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- Based on the Karst Occurrence Potential (.kmz) provided by the BLM, the Site is not located within an unstable area, also referred to as high karst potential.
- The Site is not located within a 100-year floodplain.

Based on the identified siting criteria, the regional depth to groundwater, and the location of the release on an active production pad, cleanup goals for soils remaining in place at the Site include:

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

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

3.0 SOIL REMEDIATION ACTIVITIES

On March 5, 2024, Oxy had a release of produced water at the Site from a frac tank. Approximately 20 bbls of produced water released onto the ground surface, with approximately 10 bbls of produced water recovered.

On July 11, 2024, Ensolum arrived on-Site to collect 31 composite soil samples (FS01 through FS31) from 31 locations within the release area at a depth of 0.5 feet bgs. Based on laboratory analytical data, additional excavation and/or remediation was necessary.

On August 21, 2024, subsequent to the completion of remediation activities, Ensolum arrived on-Site to collect 11 composite soil re-samples from the excavation floor (FS-05, FS-09, FS-10, FS-

11, FS-13, FS-16, FS-19, FS-20, FS-25, FS-26, and FS-27) at depths ranging from 1 to 1.5 feet bgs. In addition, Ensolum collected a total of 11 composite sidewall soil samples (SW-01 through SW-11) from 11 locations at depths of 1 to 1.5 feet bgs. Based on laboratory analytical data, no additional excavation and/or remediation was necessary.

The final excavation area measured approximately 70 feet long and 100 feet wide at the maximum extents, with a depth ranging from 0.5 to 1.5 feet bgs.

The excavation measured approximately 6,231 square feet in arial extent. A total of 160 cubic yards (cy) of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the Lea Land Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was backfilled utilizing material purchased locally and recontoured to match pre-existing conditions.

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

4.0 SOIL SAMPLING PROGRAM

Ensolum's soil sampling program from July 11, 2024, through August 21, 2024, included the collection of a total of 42 composite soil samples from 31 locations from the excavation floor (FS-01 through FS-31) and 11 composite soil samples from 11 locations from the excavation sidewalls (SW-01 through SW-11). Additionally, one composite soil sample was collected from the backfill material used at the Site (Lea Land Caliche Pit) on September 13, 2024.

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

5.0 SOIL LABORATORY ANALYTICAL METHODS

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

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

6.0 DATA EVALUATION

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

- Laboratory analytical results indicate benzene concentrations for the final composite soil samples collected from the excavation area, and the backfill material do not exceed the laboratory SDLs, which are below the NMOCD Closure Criteria of 10 milligrams per kilogram (mg/kg).

- Laboratory analytical results indicated that total BTEX concentrations for the final composite soil samples collected from the excavation area and the backfill material do not exceed the laboratory SDLs, which are below the NMOCD Closure Criteria of 50 mg/kg.
- Laboratory analytical results indicated that combined TPH-GRO/DRO concentrations for the soils remaining in place at the Site in the Non-Vegetative Zone did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 1,000 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicated that combined TPH-GRO/DRO/MRO concentrations for the soils remaining in place at the Site Non-Vegetative Zone did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 2,500 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicated chloride concentrations for the soils remaining in place at the Site in the Non-Vegetative Zone did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 20,000 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicated that combined TPH-GRO/DRO/MRO concentrations for the soils remaining in place at the Site in the Vegetative Zone did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 100 mg/kg for depth to groundwater ≤50 feet.
- Laboratory analytical results indicated chloride concentrations for the soils remaining in place at the Site in the Vegetative Zone did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 600 mg/kg for depth to groundwater ≤50 feet.

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

7.0 RECLAMATION AND REVEGETATION

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

8.0 FINDINGS AND RECOMMENDATION

- On March 5, 2024, Oxy had a release of produced water at the Site from a frac tank. Approximately 20 bbls of produced water released onto the ground surface, with approximately 10 bbls of produced water recovered.
- Ensolum's soil sampling program from July 11, 2024, through August 21, 2024, included the collection of a total of 42 composite soil samples from 31 soil sample locations from the excavation floor (FS-01 through FS-31) and 11 soil samples from 11 locations from the excavation sidewalls (SW-01 through SW-11) for laboratory analysis. The composite floor samples were collected at depths ranging from 0.5 to 1.5 feet bgs, and the sidewall samples were collected at a depth ranging from 1.0 to 1.5 feet bgs. Additionally, one composite soil sample was collected from the backfill material used at the Site (Lea Land Caliche Pit) on September 13, 2024.

- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soil to be in compliance with applicable NMOCD Closure Criteria for Soils Impacted by a Release using the New Mexico EMNRD OCD's NMAC 19.15.29 Releases as guidance.
- The final excavation area measured approximately 70 feet long and 100 feet wide at the maximum extents, with a depth ranging from 0.5 to 1.5 feet bgs.
- Based on laboratory analytical results, the final composite soil samples collected from the excavation floor and sidewalls and the backfill material did not exhibit benzene, total BTEX, TPH GRO/DRO/MRO, or chloride concentrations above the applicable NMOCD Closure Criteria.
- After confirmation sampling was completed, the backfill of the excavation was completed utilizing material purchased locally from the Lea Land Caliche Pit and recontoured to match pre-existing conditions.

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

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 Standard of Care

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

9.2 Limitations

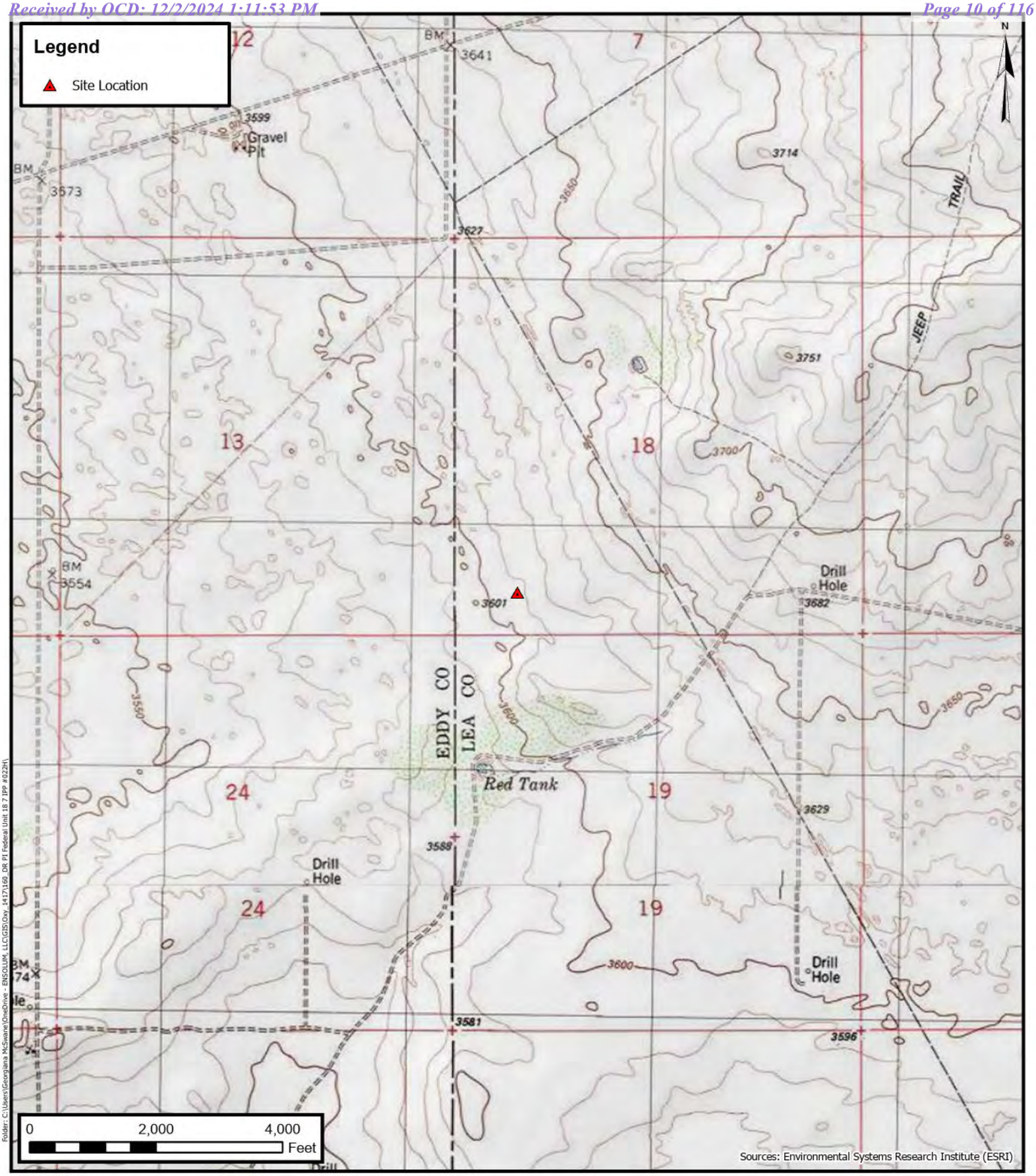
Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work, and it should be noted that this information is subject to change over time. Certain indicators of the presence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

9.3 Reliance

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

APPENDIX A

Figures



Folder: C:\Users\Georgiana M.Swane\OneDrive - ENSOLUM, LLC\GIS\Oxy_1417160_DR PI Federal Unit 18 7 IPP #022H\

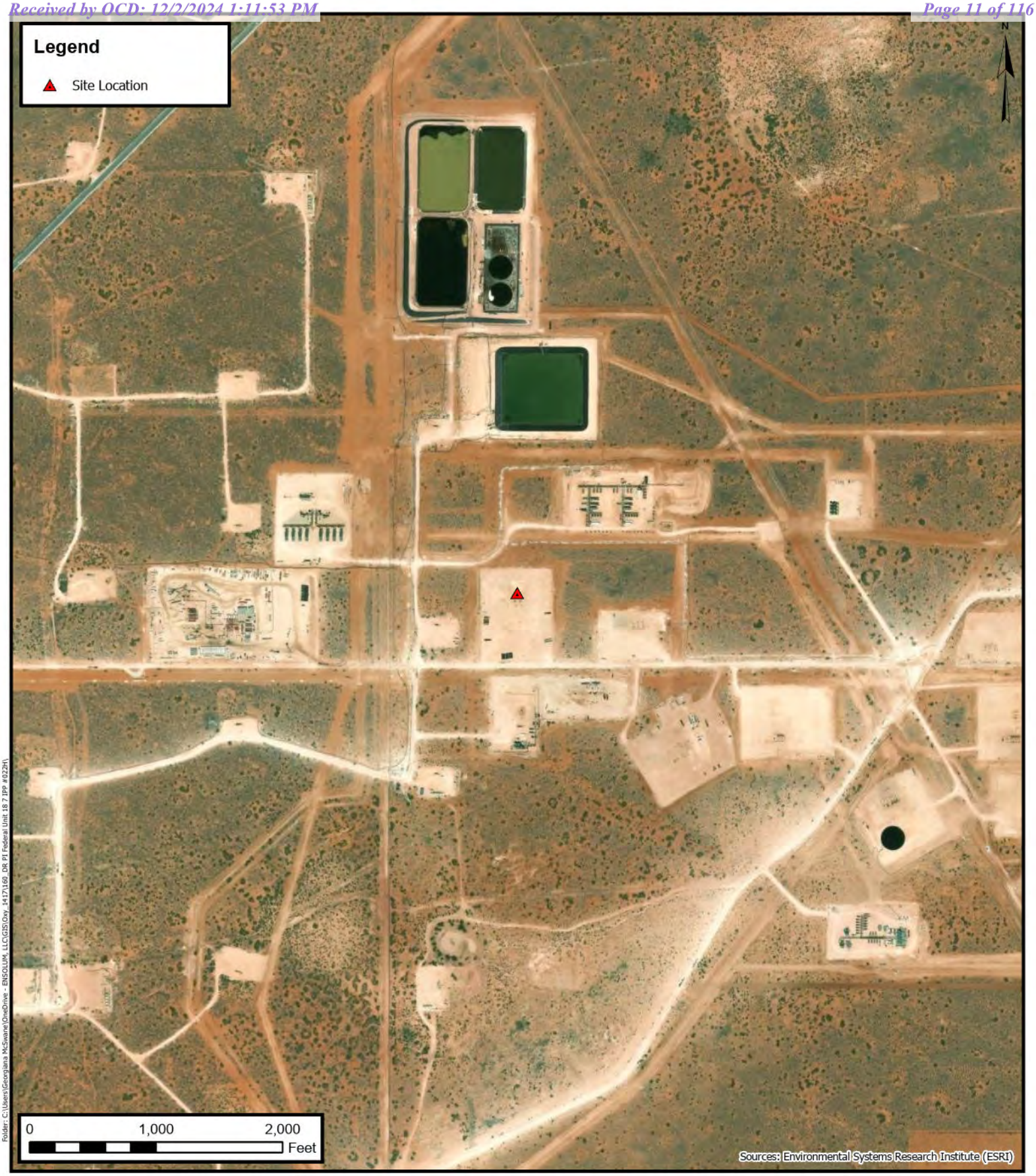
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Topographic Map

Oxy USA Inc.
DR PI Federal Unit 18 7 IPP #022H
32.3856° N, 103.7201° W
Lea County, New Mexico

PROJECT NUMBER: 03B1417160

FIGURE 1



Folder: C:\Users\Georgiana M.Swane\OneDrive - ENSOLUM, LLC\GIS\Oxy_14171160_DR PI Federal Unit 18 7 IPP #022H\

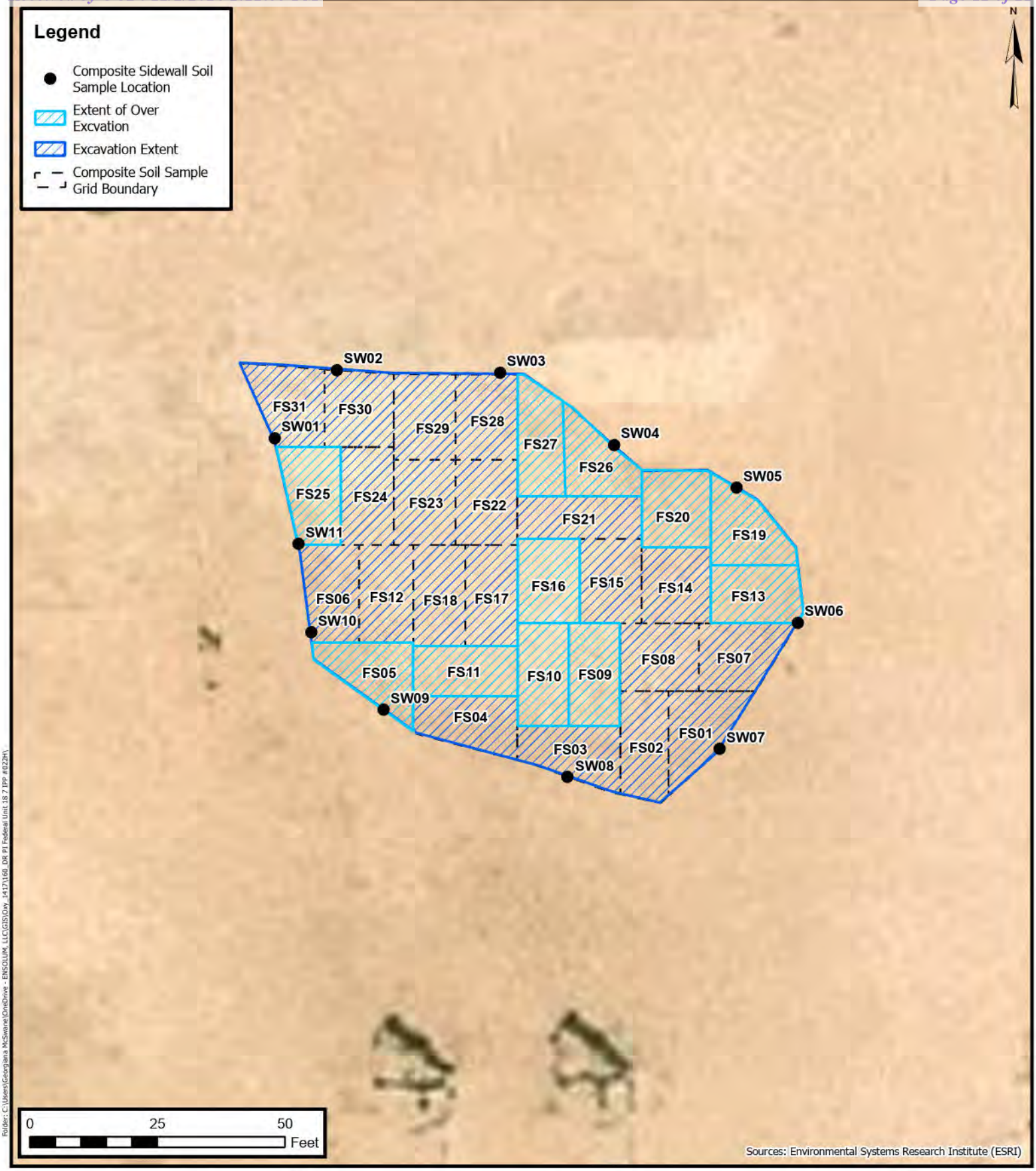
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Vicinity Map

Oxy USA Inc.
DR PI Federal Unit 18 7 IPP #022H
32.3856° N, 103.7201° W
Lea County, New Mexico

PROJECT NUMBER: 03B1417160

FIGURE 2



Folder: C:\Users\Georgiana M.Swane\OneDrive - ENSOLUM, LLC\GIS\Oxy_14171160_DR PI Federal Unit 18 7 IPP #022H\

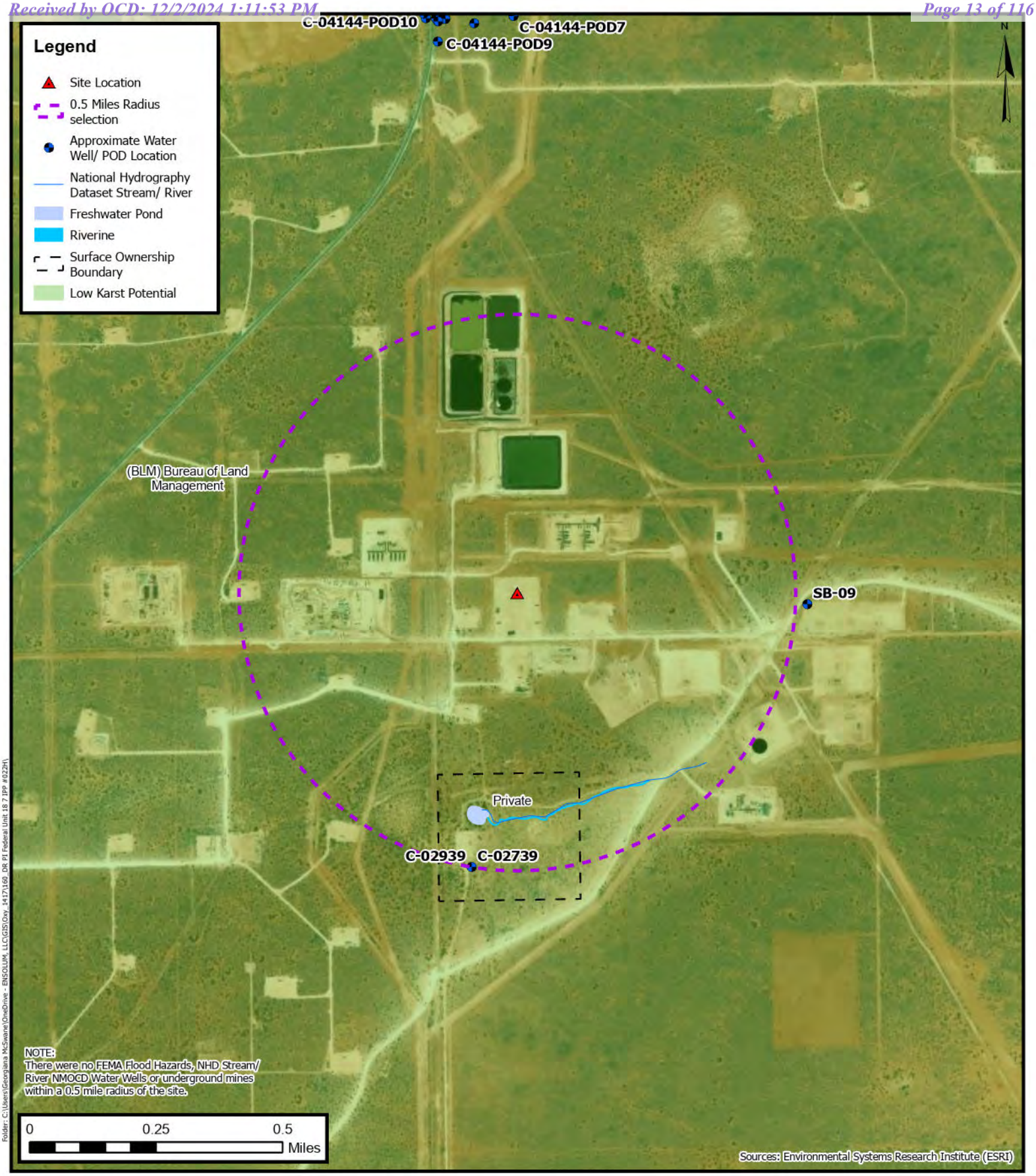
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Map

Oxy USA Inc.
DR PI Federal Unit 18 7 IPP #022H
32.3856° N, 103.7201° W
Lea County, New Mexico

PROJECT NUMBER: 03B1417160

FIGURE 3



Folder: C:\Users\Georgiana M.Swane\OneDrive - ENSOLUM, LLC\GIS\Oxy_14171160_DR PI Federal Unit 18 7 IPP #022H\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Closure Criteria Map

Oxy USA Inc.
DR PI Federal Unit 18 7 IPP #022H
32.3856° N, 103.7201° W
Lea County, New Mexico

PROJECT NUMBER: 03B1417160

FIGURE 4

ENSOLUM

APPENDIX B

Supporting Documentation

Kelly Lowery

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Tuesday, June 4, 2024 3:15 PM
To: Kelly Lowery
Cc: Wade Dittrich; Tyson Pierce; Beaux Jennings; Bratcher, Michael, EMNRD
Subject: Re: [EXTERNAL] Extension Request: DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309)

[**EXTERNAL EMAIL**]
Good afternoon Kelly,

Your 90-day time extension request is approved. Remediation Due date has been updated to September 3, 2024.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Monday, June 3, 2024 8:43 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Extension Request: DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309)

From: Kelly Lowery <klowery@ensolum.com>
Sent: Monday, June 3, 2024 8:31 AM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Dittrich, John W <Wade_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>
Subject: [EXTERNAL] Extension Request: DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309)

Good morning,

On behalf of Oxy USA, Inc, Ensolum, LLC would like to request a 90-day extension for the DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309). Excavation activities are currently on-going at the Site but have been delayed due to scheduling challenges with personnel and contractors. We ask that you please approve this extension request for future sampling and subsequent reporting.

Please let us know if you have any questions.

Thank you,

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

Kelly Lowery

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Thursday, September 5, 2024 1:28 PM
To: Kelly Lowery
Cc: Wade Dittrich; Tyson Pierce; Beaux Jennings; Bratcher, Michael, EMNRD
Subject: Re: [EXTERNAL] Extension Request - DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309)

[**EXTERNAL EMAIL**]
Good afternoon Kelly,

Thank you for the correspondence. Please accept my apology for the delay in response.

Your 90-day time extension request is approved. Remediation Due date has been updated to December 2, 2024.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Have a safe and pleasant day!

Regards,

Nelson Velez ● Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Friday, August 30, 2024 11:06 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Extension Request - DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309)

From: Kelly Lowery <klowery@ensolum.com>
Sent: Friday, August 30, 2024 10:39 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

Cc: Dittrich, John W <Wade_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>
Subject: [EXTERNAL] Extension Request - DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309)

Good morning,

On behalf of Oxy USA, Inc., Ensolum, LLC would like to request a 90-day extension for the DR PI Federal Unit 18 7 IPP #022H (Incident ID: nAPP2407545309). Due to delays in scheduling with contractors and various team members, additional excavation activities at the Site have recently been completed to meet the Closure Criteria Limits specific to this location and pending analytical report, we will begin the drafting the Closure for this Site. We humbly ask for an extension so that we may wrap up the Site fully and complete the report so that it can be thoroughly reviewed before submitting the final copy to the portal. The site characterization for the incident was submitted to the OCD portal on 3/15/2024.

Please let us know if you have any questions.

Thank you,

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

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Revised June 1972

472398

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well JC+Frances Mills Family Partnership Owner's Well No. _____

Street or Post Office Address Box 1358

City and State Loving, NM 88256

Well was drilled under Permit No. C-2939 and is located in the:

a. NW ¼ SW ¼ SW ¼ ¼ of Section 19 Township 22S Range 32E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Taylor Water Well Service License No. WD-1348

Address 7317 Etcheverry Rd., Carlsbad, NM 88220

Drilling Began 2/9/03 Completed 2/13/03 Type tools Rotary Size of hole 7 7/8 in.

Elevation of land surface or _____ at well is UK ft. Total depth of well 280 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
			Dry Hole	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2003 MAR 1

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	10	10	Sand+Clay:rd,loose
10	20	10	Shale:rd,sme gn,slty,smth
20	28	8	Siltstone:gn gry,wl consl,lmy
28	31	3	Clay:rd,vry stky
31	40	9	Shale:rd,earthy,slty
40	72	32	Sandstone:clr,frstd,vfn-med grn,sb rnd,rnd,wl consl
72	84	12	Shale:rd,blky,plty,slty
84	90	6	Clay:rd,slty,smth
90	98	8	Sandstone:clr,frstd,vfn-fn grn,sme slty,wl consl
98	120	22	Shale:rd,slty
120	164	44	Sandstone:clr,frstd,vfn-fn grn,sb rnd,rnd,wl consl
			30% Shale
164	172	8	Clay:rd,vry stky
172	280	108	Thin layer of Rd Clay,Rd Shale+Clr-Frstd Sandstone

Section 7. REMARKS AND ADDITIONAL INFORMATION

TRINITY OILFIELD SERVICES

SOIL BORE LOG SB-09

PROJECT NAME DR. PI FEDERAL UNIT 17 8 DA #31H	**DRILLING DATE** 11/15/2022	**COORDINATES** 32.38531930, -103.71040340
CLIENT OXY USA, Inc.	**TOTAL DEPTH** 110'	**COORD SYS** NAD 83
		ULSTR O-18-22S-32E
		SURFACE ELEVATION 3670'

COMMENTS Spud on the Northwest corner of the DR PI FEDERAL UNIT 18 7 IPP Well Pad. Bore Hole was observed to be dry after 72 hrs.

LOGGED BY CJ
CHECKED BY DD

Depth (ft)	Moisture	Material Description	Elevation (ft)
	D	Reddish Yellow Sandy Clay Loam. Dry	
5		Yellowish Red Sandy Clay Loam. Dry	3665
10			3660
15		Red Sandy Clay Loam. Dry	3655
20			3650
25			3645
		Red Sandy Clay. Dry	
30			3640
35			3635
		Reddish Brown Sandy Clay Loam. Dry	
40		Red Sandy Clay. Dry	3630
45		Red Sandy Clay Loam. Dry	3625
50			3620
55			3615
60			3610
		Reddish Brown Sandy Clay. Dry	
65			3605
70			3600
75			3595
80			3590
		Red Clay. Dry	
85			3585
90			3580
95			3575
100			3570
105			3565
110			3560
		Termination Depth at:110 ft.	
115			3555

Disclaimer This bore log is intended to evidence a depth to groundwater greater than 110'.

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APPENDIX C

Photographic Documentation

View of release extent prior to remediation activities, facing southwest (05/16/2024).

View of excavation extent during remediation activities, facing southwest (06/21/2024).

Project: DR PI Federal Unit 18 7 IPP #022H
Entity: Oxy USA, Inc
Incident ID: nAPP2407545309

ENSOLUM

View of excavation extent during remediation activities, facing northeast (06/21/2024).

View of excavation extent during continued remediation activities, facing east (07/11/2024).

View of excavation extent during continued remediation activities, facing northwest (07/11/2024).

View of excavation extent during continued remediation activities, facing northeast (08/21/2024).

Project: DR PI Federal Unit 18 7 IPP #022H
Entity: Oxy USA, Inc
Incident ID: nAPP2407545309

ENSOLUM

View of excavation extent during continued remediation activities, facing northwest (08/21/2024).

View of backfilled excavation extent post remediation activities, facing northeast (09/13/2024).

ENSOLUM

APPENDIX D

Table

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
DR PI FEDERAL UNIT 18 7 IPP #022H
Oxy USA, Inc.
Lea County, New Mexico
Project No. 03B1417160

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toulene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (>100 feet)			**10**	**NE**	**NE**	**NE**	**50**	**1,000**		**NE**	**2,500**	**20,000**
Composite Floor Soil Sample Analytical Results												
FS 01	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**221**		<10.0	**221**	**2,440**
FS 02	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**11.0**		<10.0	**11.0**	**272**
FS 03	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0		<10.0	<10.0	**160**
FS 04	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**649**		<10.0	**649**	**752**
FS 05	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**4,480**		<10.0	**4,480**	**3,360**
	08/21/2024	1.0	NS					**88.6**		<10.0	**88.6**	NS
FS 06	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**956**		<10.0	**956**	**800**
FS 07	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**162**		<10.0	**162**	**1,660**
FS 08	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**319**		<10.0	**319**	**2,360**
FS 09	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**1,400**		<10.0	**1,400**	**1,730**
	08/21/2024	1.0	NS					<10.0		<10.0	<10.0	NS
FS 10	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**6,493**		<10.0	**6,493**	**6,300**
	08/21/2024	1.0	NS					**548**		<10.0	**548**	NS
FS 11	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**2,800**		<10.0	**2,800**	**7,520**
	08/21/2024	1.0	NS					**937**		<10.0	**937**	NS
FS 12	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**39.0**		<10.0	**39.0**	**336**
FS 13	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**1,440**		<10.0	**1,440**	**2,160**
	08/21/2024	1.5	NS					<10.0		<10.0	<10.0	NS
FS 14	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**11.6**		<10.0	**11.6**	**704**
FS 15	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**588**		<10.0	**588**	**2,240**
FS 16	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**2,050**		<10.0	**2,050**	**3,840**
	08/21/2024	1.0	NS					<10.0		<10.0	<10.0	NS
FS 17	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**78.5**		<10.0	**78.5**	**1,460**
FS 18	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**783**		<10.0	**783**	**1,100**
FS 19	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**2,613**		<10.0	**2,613**	**1,140**
	08/21/2024	1.0	NS					<10.0		<10.0	<10.0	NS
FS 20	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**2,031**		<10.0	**2,031**	**3,680**
	08/21/2024	1.0	NS					<10.0		<10.0	<10.0	NS
FS 21	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**751**		<10.0	**751**	**1,340**
FS 22	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**32.9**		<10.0	**32.9**	**912**
FS 23	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**16.6**		<10.0	**16.6**	**816**

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
DR PI FEDERAL UNIT 18 7 IPP #022H
Oxy USA, Inc.
Lea County, New Mexico
Project No. 03B1417160

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toulene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (>100 feet)			**10**	**NE**	**NE**	**NE**	**50**	**1,000**		**NE**	**2,500**	**20,000**
Composite Floor Soil Sample Analytical Results												
FS 24	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**55.6**		<10.0	**55.6**	**2,520**
FS 25	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**1,030**		<10.0	**1,030**	**1,260**
	08/21/2024	1.0	NS					<10.0		<10.0	<10.0	NS
FS 26	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**2,220**		<10.0	**2,220**	**1,960**
	08/21/2024	1.0	NS					<10.0		<10.0	<10.0	NS
FS 27	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**1,250**		<10.0	**1,250**	**2,000**
	08/21/2024	1.0	NS					<10.0		<10.0	<10.0	NS
FS 28	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**78.3**		**25.5**	**104**	**1,300**
FS 29	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**26.9**		<10.0	**26.9**	**4,000**
FS 30	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**770**		<10.0	**770**	**1,250**
FS 31	07/11/2024	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**61.1**		<10.0	**61.1**	**2,000**

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

Additional Excavation and/or Re-Sample

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

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TABLE 2
SIDEWALL SOIL SAMPLE ANALYTICAL RESULTS
DR PI FEDERAL UNIT 18 7 IPP #022H
Oxy USA, Inc.
Lea County, New Mexico
Project No. 03B1417160

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toulene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤50 feet)			**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
Composite Sidewall Soil Sample Analytical Results												
SW01	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**96.0**
SW02	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**48.0**
SW03	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SW04	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SW05	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SW06	08/21/2024	1.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SW07	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**32.0**
SW08	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**19.4**	<10.0	**19.4**	**32.0**
SW09	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**32.0**
SW10	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**12.6**	<10.0	**12.6**	**16.0**
SW11	08/21/2024	1.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**32.0**

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

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

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)			**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
Composite Background Soil Sample Analytical Result												
Lea Land Caliche Pit	09/13/2024	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**98.6**	<10.0	**98.6**	**560**

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

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APPENDIX E

Laboratory Analytical Reports & Chain-of-Custody Documentation

CARDINAL Laboratories

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

July 19, 2024

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: DR PI FEDERAL UNIT 18 7 IPP #022H

Enclosed are the results of analyses for samples received by the laboratory on 07/11/24 13:28.

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.

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 01 0.5	H244153-01	Soil	11-Jul-24 08:59	11-Jul-24 13:28
FS 02 0.5	H244153-02	Soil	11-Jul-24 09:01	11-Jul-24 13:28
FS 03 0.5	H244153-03	Soil	11-Jul-24 09:02	11-Jul-24 13:28
FS 04 0.5	H244153-04	Soil	11-Jul-24 09:03	11-Jul-24 13:28
FS 05 0.5	H244153-05	Soil	11-Jul-24 09:04	11-Jul-24 13:28
FS 06 0.5	H244153-06	Soil	11-Jul-24 09:06	11-Jul-24 13:28
FS 07 0.5	H244153-07	Soil	11-Jul-24 09:09	11-Jul-24 13:28
FS 08 0.5	H244153-08	Soil	11-Jul-24 09:11	11-Jul-24 13:28
FS 09 0.5	H244153-09	Soil	11-Jul-24 09:12	11-Jul-24 13:28
FS 10 0.5	H244153-10	Soil	11-Jul-24 09:13	11-Jul-24 13:28
FS 11 0.5	H244153-11	Soil	11-Jul-24 09:15	11-Jul-24 13:28
FS 12 0.5	H244153-12	Soil	11-Jul-24 09:16	11-Jul-24 13:28
FS 13 0.5	H244153-13	Soil	11-Jul-24 09:21	11-Jul-24 13:28
FS 14 0.5	H244153-14	Soil	11-Jul-24 09:22	11-Jul-24 13:28
FS 15 0.5	H244153-15	Soil	11-Jul-24 09:23	11-Jul-24 13:28
FS 16 0.5	H244153-16	Soil	11-Jul-24 09:25	11-Jul-24 13:28
FS 17 0.5	H244153-17	Soil	11-Jul-24 09:26	11-Jul-24 13:28
FS 18 0.5	H244153-18	Soil	11-Jul-24 09:27	11-Jul-24 13:28
FS 19 0.5	H244153-19	Soil	11-Jul-24 09:33	11-Jul-24 13:28
FS 20 0.5	H244153-20	Soil	11-Jul-24 09:34	11-Jul-24 13:28
FS 21 0.5	H244153-21	Soil	11-Jul-24 09:35	11-Jul-24 13:28
FS 22 0.5	H244153-22	Soil	11-Jul-24 09:36	11-Jul-24 13:28
FS 23 0.5	H244153-23	Soil	11-Jul-24 09:37	11-Jul-24 13:28
FS 24 0.5	H244153-24	Soil	11-Jul-24 09:38	11-Jul-24 13:28
FS 25 0.5	H244153-25	Soil	11-Jul-24 09:43	11-Jul-24 13:28
FS 26 0.5	H244153-26	Soil	11-Jul-24 09:44	11-Jul-24 13:28
FS 27 0.5	H244153-27	Soil	11-Jul-24 09:46	11-Jul-24 13:28

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 28	0.5	H244153-28	Soil	11-Jul-24 09:48	11-Jul-24 13:28
FS 29	0.5	H244153-29	Soil	11-Jul-24 09:49	11-Jul-24 13:28
FS 30	0.5	H244153-30	Soil	11-Jul-24 09:52	11-Jul-24 13:28
FS 31	0.5	H244153-31	Soil	11-Jul-24 09:50	11-Jul-24 13:28

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 01 0.5

H244153-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2440**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*108 %*	*71.5-134*		*4071224*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
DRO >C10-C28*	**221**		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*104 %*	*48.2-134*		*4071203*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*109 %*	*49.1-148*		*4071203*	MS	*12-Jul-24*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 02 0.5

H244153-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**272**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*102 %*	*71.5-134*		*4071224*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
DRO >C10-C28*	**11.0**		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*114 %*	*48.2-134*		*4071203*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*114 %*	*49.1-148*		*4071203*	MS	*12-Jul-24*	*8015B*	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 03 0.5

H244153-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**160**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*107 %*	*71.5-134*		*4071224*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*110 %*	*48.2-134*		*4071203*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*110 %*	*49.1-148*		*4071203*	MS	*12-Jul-24*	*8015B*	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 04 0.5

H244153-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**752**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*104 %*	*71.5-134*		*4071224*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
DRO >C10-C28*	**649**		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071203	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*86.6 %*	*48.2-134*		*4071203*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*97.5 %*	*49.1-148*		*4071203*	MS	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 05 0.5

H244153-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**3360**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071224	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*107 %*	*71.5-134*		*4071224*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071203	MS	13-Jul-24	8015B	
DRO >C10-C28*	**4480**		10.0	mg/kg	1	4071203	MS	13-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071203	MS	13-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*98.6 %*	*48.2-134*		*4071203*	MS	*13-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*128 %*	*49.1-148*		*4071203*	MS	*13-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 06 0.5

H244153-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**800**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*96.6 %*	*71.5-134*		*4071230*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071203	MS	13-Jul-24	8015B	
DRO >C10-C28*	**956**		10.0	mg/kg	1	4071203	MS	13-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071203	MS	13-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*111 %*	*48.2-134*		*4071203*	MS	*13-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*124 %*	*49.1-148*		*4071203*	MS	*13-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 07 0.5

H244153-07 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1660**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*108 %*	*71.5-134*		*4071230*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**162**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*90.5 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*102 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 08 0.5

H244153-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2360**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*96.7 %*	*71.5-134*		*4071230*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**319**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*101 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*109 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 09 0.5

H244153-09 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1730**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*99.4 %*	*71.5-134*		*4071230*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**1400**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*94.9 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*118 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 10 0.5

H244153-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**6300**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*130 %*	*71.5-134*		*4071230*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	**53.4**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**6440**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*112 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*127 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 11 0.5

H244153-11 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**7520**		16.0	mg/kg	4	4071244	AC	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*112 %*	*71.5-134*		*4071230*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**2800**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*96.8 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*112 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 12 0.5

H244153-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**336**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*102 %*	*71.5-134*		*4071230*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**39.0**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*90.2 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*94.8 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 13 0.5

H244153-13 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2160**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	13-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*102 %*	*71.5-134*		*4071230*	JH	*13-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**1440**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*94.6 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*103 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 14 0.5

H244153-14 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**704**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*107 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**11.6**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*84.9 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*88.0 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 15 0.5

H244153-15 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2240**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*99.8 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**588**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*91.5 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*104 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 16 0.5

H244153-16 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**3840**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*103 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**2050**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*97.0 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*108 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 17 0.5

H244153-17 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1460**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*103 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**78.5**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*96.4 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*102 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 18 0.5

H244153-18 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1100**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*105 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**783**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*99.5 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*116 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 19 0.5

H244153-19 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1140**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*108 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	**13.0**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**2600**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*104 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*112 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 20 0.5

H244153-20 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**3680**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*98.2 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	**20.5**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**2010**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*101 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*109 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 21 0.5

H244153-21 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1340**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*104 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**751**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*94.2 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*109 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 22 0.5

H244153-22 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**912**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*105 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
DRO >C10-C28*	**32.9**		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*98.9 %*	*48.2-134*		*4071204*	ms	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*104 %*	*49.1-148*		*4071204*	ms	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 23 0.5

H244153-23 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**816**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*106 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
DRO >C10-C28*	**16.6**		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*96.0 %*	*48.2-134*		*4071204*	ms	*13-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*99.8 %*	*49.1-148*		*4071204*	ms	*13-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 24 0.5

H244153-24 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2520**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*109 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
DRO >C10-C28*	**55.6**		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*79.3 %*	*48.2-134*		*4071204*	ms	*13-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*82.6 %*	*49.1-148*		*4071204*	ms	*13-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 25 0.5

H244153-25 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1260**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071230	JH	14-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*102 %*	*71.5-134*		*4071230*	JH	*14-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
DRO >C10-C28*	**1030**		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*80.8 %*	*48.2-134*		*4071204*	ms	*13-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*99.2 %*	*49.1-148*		*4071204*	ms	*13-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 26 0.5

H244153-26 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1960**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*102 %*	*71.5-134*		*4071231*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
DRO >C10-C28*	**2220**		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071204	ms	13-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*87.7 %*	*48.2-134*		*4071204*	ms	*13-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*99.6 %*	*49.1-148*		*4071204*	ms	*13-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 27 0.5

H244153-27 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**2000**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*104 %*	*71.5-134*		*4071231*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
DRO >C10-C28*	**1250**		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*99.3 %*	*48.2-134*		*4071205*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*123 %*	*49.1-148*		*4071205*	MS	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 28 0.5

H244153-28 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1300**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*104 %*	*71.5-134*		*4071231*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
DRO >C10-C28*	**78.3**		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	**25.5**		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*99.8 %*	*48.2-134*		*4071205*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*110 %*	*49.1-148*		*4071205*	MS	*12-Jul-24*	*8015B*	

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Analytical Results For:

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FS 29 0.5

H244153-29 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**4000**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*104 %*	*71.5-134*		*4071231*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
DRO >C10-C28*	**26.9**		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*103 %*	*48.2-134*		*4071205*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*115 %*	*49.1-148*		*4071205*	MS	*12-Jul-24*	*8015B*	

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Analytical Results For:

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FS 30 0.5

H244153-30 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**1250**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*104 %*	*71.5-134*		*4071231*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
DRO >C10-C28*	**770**		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*98.3 %*	*48.2-134*		*4071205*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*118 %*	*49.1-148*		*4071205*	MS	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

FS 31 0.5

H244153-31 (Soil)

Cardinal Laboratories

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Inorganic Compounds										
Chloride	**2000**		16.0	mg/kg	4	4071511	CT	15-Jul-24	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4071231	JH	15-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*104 %*	*71.5-134*		*4071231*	JH	*15-Jul-24*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
DRO >C10-C28*	**61.1**		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4071205	MS	12-Jul-24	8015B	
Surrogate: 1-Chlorooctane			*96.5 %*	*48.2-134*		*4071205*	MS	*12-Jul-24*	*8015B*	
Surrogate: 1-Chlorooctadecane			*109 %*	*49.1-148*		*4071205*	MS	*12-Jul-24*	*8015B*	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4071244 - 1:4 DI Water										
Blank (4071244-BLK1)				Prepared & Analyzed: 12-Jul-24						
Chloride	ND	16.0	mg/kg							
LCS (4071244-BS1)				Prepared & Analyzed: 12-Jul-24						
Chloride	432	16.0	mg/kg	400		108	80-120			
LCS Dup (4071244-BSD1)				Prepared & Analyzed: 12-Jul-24						
Chloride	448	16.0	mg/kg	400		112	80-120	3.64	20	
Batch 4071511 - 1:4 DI Water										
Blank (4071511-BLK1)				Prepared & Analyzed: 15-Jul-24						
Chloride	ND	16.0	mg/kg							
LCS (4071511-BS1)				Prepared & Analyzed: 15-Jul-24						
Chloride	448	16.0	mg/kg	400		112	80-120			
LCS Dup (4071511-BSD1)				Prepared & Analyzed: 15-Jul-24						
Chloride	432	16.0	mg/kg	400		108	80-120	3.64	20	

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4071224 - Volatiles										
Blank (4071224-BLK1)				Prepared: 12-Jul-24 Analyzed: 13-Jul-24						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0541*		mg/kg	*0.0500*		*108*	*71.5-134*			
LCS (4071224-BS1)				Prepared: 12-Jul-24 Analyzed: 13-Jul-24						
Benzene	2.17	0.050	mg/kg	2.00		108	82.8-130			
Toluene	2.00	0.050	mg/kg	2.00		100	86-128			
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	85.9-128			
m,p-Xylene	4.01	0.100	mg/kg	4.00		100	89-129			
o-Xylene	2.01	0.050	mg/kg	2.00		101	86.1-125			
Total Xylenes	6.03	0.150	mg/kg	6.00		100	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0476*		mg/kg	*0.0500*		*95.3*	*71.5-134*			
LCS Dup (4071224-BSD1)				Prepared: 12-Jul-24 Analyzed: 13-Jul-24						
Benzene	2.00	0.050	mg/kg	2.00		100	82.8-130	7.88	15.8	
Toluene	1.87	0.050	mg/kg	2.00		93.7	86-128	6.71	15.9	
Ethylbenzene	1.90	0.050	mg/kg	2.00		95.2	85.9-128	7.09	16	
m,p-Xylene	3.72	0.100	mg/kg	4.00		93.0	89-129	7.60	16.2	
o-Xylene	1.87	0.050	mg/kg	2.00		93.7	86.1-125	7.12	16.7	
Total Xylenes	5.59	0.150	mg/kg	6.00		93.2	88.2-128	7.44	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0492*		mg/kg	*0.0500*		*98.3*	*71.5-134*			
Batch 4071230 - Volatiles										
Blank (4071230-BLK1)				Prepared: 12-Jul-24 Analyzed: 13-Jul-24						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4071230 - Volatiles										
Blank (4071230-BLK1)				Prepared: 12-Jul-24 Analyzed: 13-Jul-24						
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0538*		mg/kg	*0.0500*		*108*	*71.5-134*			
LCS (4071230-BS1)				Prepared: 12-Jul-24 Analyzed: 13-Jul-24						
Benzene	2.27	0.050	mg/kg	2.00		113	82.8-130			
Toluene	2.06	0.050	mg/kg	2.00		103	86-128			
Ethylbenzene	2.05	0.050	mg/kg	2.00		103	85.9-128			
m,p-Xylene	4.00	0.100	mg/kg	4.00		99.9	89-129			
o-Xylene	2.03	0.050	mg/kg	2.00		101	86.1-125			
Total Xylenes	6.02	0.150	mg/kg	6.00		100	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0475*		mg/kg	*0.0500*		*94.9*	*71.5-134*			
LCS Dup (4071230-BSD1)				Prepared: 12-Jul-24 Analyzed: 13-Jul-24						
Benzene	2.11	0.050	mg/kg	2.00		105	82.8-130	7.34	15.8	
Toluene	1.93	0.050	mg/kg	2.00		96.5	86-128	6.39	15.9	
Ethylbenzene	1.95	0.050	mg/kg	2.00		97.6	85.9-128	5.03	16	
m,p-Xylene	3.84	0.100	mg/kg	4.00		96.1	89-129	3.93	16.2	
o-Xylene	1.94	0.050	mg/kg	2.00		96.9	86.1-125	4.41	16.7	
Total Xylenes	5.78	0.150	mg/kg	6.00		96.3	88.2-128	4.09	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0492*		mg/kg	*0.0500*		*98.5*	*71.5-134*			
Batch 4071231 - Volatiles										
Blank (4071231-BLK1)				Prepared: 12-Jul-24 Analyzed: 15-Jul-24						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0512*		mg/kg	*0.0500*		*102*	*71.5-134*			

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4071231 - Volatiles										
LCS (4071231-BS1)				Prepared: 12-Jul-24 Analyzed: 15-Jul-24						
Benzene	1.92	0.050	mg/kg	2.00		95.9	82.8-130			
Toluene	1.95	0.050	mg/kg	2.00		97.6	86-128			
Ethylbenzene	2.02	0.050	mg/kg	2.00		101	85.9-128			
m,p-Xylene	4.01	0.100	mg/kg	4.00		100	89-129			
o-Xylene	1.99	0.050	mg/kg	2.00		99.7	86.1-125			
Total Xylenes	6.00	0.150	mg/kg	6.00		100	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0524*		mg/kg	*0.0500*		*105*	*71.5-134*			
LCS Dup (4071231-BSD1)				Prepared: 12-Jul-24 Analyzed: 15-Jul-24						
Benzene	1.84	0.050	mg/kg	2.00		91.9	82.8-130	4.22	15.8	
Toluene	1.87	0.050	mg/kg	2.00		93.3	86-128	4.46	15.9	
Ethylbenzene	1.93	0.050	mg/kg	2.00		96.4	85.9-128	4.70	16	
m,p-Xylene	3.81	0.100	mg/kg	4.00		95.2	89-129	5.17	16.2	
o-Xylene	1.90	0.050	mg/kg	2.00		94.9	86.1-125	4.90	16.7	
Total Xylenes	5.71	0.150	mg/kg	6.00		95.1	88.2-128	5.08	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0516*		mg/kg	*0.0500*		*103*	*71.5-134*			

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CARDINAL Laboratories

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4071203 - General Prep - Organics										
Blank (4071203-BLK1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*45.3*		mg/kg	*50.0*		*90.6*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*45.6*		mg/kg	*50.0*		*91.2*	*49.1-148*			
LCS (4071203-BS1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	206	10.0	mg/kg	200		103	66.4-123			
DRO >C10-C28	218	10.0	mg/kg	200		109	66.5-118			
Total TPH C6-C28	424	10.0	mg/kg	400		106	77.6-123			
Surrogate: 1-Chlorooctane	*48.8*		mg/kg	*50.0*		*97.5*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*47.5*		mg/kg	*50.0*		*95.1*	*49.1-148*			
LCS Dup (4071203-BSD1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	200	10.0	mg/kg	200		100	66.4-123	2.77	17.7	
DRO >C10-C28	207	10.0	mg/kg	200		103	66.5-118	5.48	21	
Total TPH C6-C28	407	10.0	mg/kg	400		102	77.6-123	4.15	18.5	
Surrogate: 1-Chlorooctane	*47.4*		mg/kg	*50.0*		*94.8*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*47.2*		mg/kg	*50.0*		*94.4*	*49.1-148*			
Batch 4071204 - General Prep - Organics										
Blank (4071204-BLK1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*40.9*		mg/kg	*50.0*		*81.8*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*41.8*		mg/kg	*50.0*		*83.6*	*49.1-148*			

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4071204 - General Prep - Organics										
LCS (4071204-BS1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	208	10.0	mg/kg	200		104	66.4-123			
DRO >C10-C28	200	10.0	mg/kg	200		100	66.5-118			
Total TPH C6-C28	408	10.0	mg/kg	400		102	77.6-123			
Surrogate: 1-Chlorooctane	*44.4*		mg/kg	*50.0*		*88.7*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*44.6*		mg/kg	*50.0*		*89.1*	*49.1-148*			
LCS Dup (4071204-BSD1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	201	10.0	mg/kg	200		100	66.4-123	3.30	17.7	
DRO >C10-C28	189	10.0	mg/kg	200		94.7	66.5-118	5.61	21	
Total TPH C6-C28	390	10.0	mg/kg	400		97.6	77.6-123	4.43	18.5	
Surrogate: 1-Chlorooctane	*42.8*		mg/kg	*50.0*		*85.5*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*43.6*		mg/kg	*50.0*		*87.1*	*49.1-148*			
Batch 4071205 - General Prep - Organics										
Blank (4071205-BLK1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*47.8*		mg/kg	*50.0*		*95.5*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*52.5*		mg/kg	*50.0*		*105*	*49.1-148*			
LCS (4071205-BS1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	216	10.0	mg/kg	200		108	66.4-123			
DRO >C10-C28	221	10.0	mg/kg	200		111	66.5-118			
Total TPH C6-C28	437	10.0	mg/kg	400		109	77.6-123			
Surrogate: 1-Chlorooctane	*52.2*		mg/kg	*50.0*		*104*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*56.2*		mg/kg	*50.0*		*112*	*49.1-148*			

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Analytical Results For:

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: DR PI FEDERAL UNIT 18 7 IPP #02 Project Number: 03B1417160 Project Manager: KELLY LOWERY Fax To:	Reported: 19-Jul-24 15:18

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4071205 - General Prep - Organics										
LCS Dup (4071205-BSD1)				Prepared & Analyzed: 12-Jul-24						
GRO C6-C10	209	10.0	mg/kg	200		104	66.4-123	3.39	17.7	
DRO >C10-C28	209	10.0	mg/kg	200		104	66.5-118	5.79	21	
Total TPH C6-C28	418	10.0	mg/kg	400		104	77.6-123	4.60	18.5	
Surrogate: 1-Chlorooctane	*49.5*		mg/kg	*50.0*		*99.0*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*53.8*		mg/kg	*50.0*		*108*	*49.1-148*			

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Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery	**P.O. #:**
Address: 601 N Marienfeld Street, Suite 400	Oxy, USA, Inc
City: Midland **State:** TX **Zip:** 79701	Attn: Wade Dittrich
Phone #: 214-733-3165 **Fax #:**	**Address:**
Project #: 03B1417160 **Project Owner:**	**City:**
Project Name: DR PI Federal Unit 18 7 IPP #022H	**State:** **Zip:**
Project Location: Lea County, NM	**Phone #**
Sampler Name: NKD/SK	**Fax #:**

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX 8021B	TPH 8015M	Chloride 4500
H244153																		
1	FS01	0.5	C	1			X					X		7-11-24	859	X	✓	✓
2	FS02														901			
3	FS03														902			
4	FS04														903			
5	FS05														904			
6	FS06														906			
7	FS07														909			
8	FS08														911			
9	FS09														912			
10	FS10	0.5	C	1			X					X		7-11-24	913	✓	✓	✓

Relinquished By: K. Shimada	**Date:** 7-11-24 **Time:** 1328	**Received By:** S Rodriguez	**Verbal Result:** ☐ Yes ☒ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**All Results are emailed. Please provide Email address:** klowery@ensolum.com
			REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 54 Corrected Temp. °C	**Sample Condition** Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	**CHECKED BY: (Initials)** SR
Turnaround Time: Standard ☑ Rush ☐	Thermometer ID ~~#113~~ #140 Correction Factor ~~-0.5°C~~	**Bacteria (only) Sample Condition** Cool ☐ Yes ☐ Nc Intact ☐ Yes ☐ No	**Observed Temp. °C** **Corrected Temp. °C**

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CARDINAL Laboratories

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery	**P.O. #:**
Address: 601 N Marienfeld Street, Suite 400	Oxy, USA, Inc
City: Midland **State:** TX **Zip:** 79701	Attn: Wade Dittrich
Phone #: 214-733-3165 **Fax #:**	**Address:**
Project #: 03B1417160 **Project Owner:**	**City:**
Project Name: DR PI Federal Unit 18 7 IPP #022H	**State:** **Zip:**
Project Location: Lea County, NM	**Phone #**
Sampler Name: NKD/SK	**Fax #:**

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	Chloride 4500
H244153																		
11	FS 11	0.5	C	1			✓					✓		7-11-24	915	✓	✓	✓
12	FS 12	↓	↓	↓			↓					↓		↓	916	↓	↓	↓
13	FS 13														921			
14	FS 14														922			
15	FS 15														923			
16	FS 16														925			
17	FS 17														926			
18	FS 18														927			
19	FS 19														933			
20	FS 20	0.5	C	1			✓					✓		7-11-24	934	✓	✓	✓

Relinquished By: K. Shimad	**Date:** 7-11-24 **Time:** 1328	**Received By:** S Rodriguez	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**All Results are emailed. Please provide Email address:** klowery@ensolum.com
			REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 5.4 Corrected Temp. °C	**Sample Condition** Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No	**CHECKED BY: (Initials)** SR	**Turnaround Time:** Standard ☐ Rush ☐ Thermometer ID ~~#113~~ #140 Correction Factor ~~0.5°C~~ **Bacteria (only) Sample Condition** Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery	**P.O. #:**
Address: 601 N Marienfeld Street, Suite 400	Oxy, USA, Inc
City: Midland **State:** TX **Zip:** 79701	Attn: Wade Dittrich
Phone #: 214-733-3165 **Fax #:**	**Address:**
Project #: 03B1417160 **Project Owner:**	**City:**
Project Name: DR PI Federal Unit 18 7 IPP #022H	**State:** **Zip:**
Project Location: Lea County, NM	**Phone #**
Sampler Name: NKD/SK	**Fax #:**

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	Chloride 4500
H244153																		
21	FS 21	0.5	C	1			✓					✓		7-11-24	933	✓	✓	✓
22	FS 22	↓	↓	↓			↓					↓		↓	936	↓	↓	↓
23	FS 23														937			
24	FS 24														938			
25	FS 25														943			
26	FS 26														944			
27	FS 27														946			
28	FS 28														948			
29	FS 29														949			
30	FS 30	0.5	C	1			✓					✓		7-11-24	952	✓	✓	✓

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Relinquished By: K. Shimada	**Date:** 7-11-24 **Time:** 1338	**Received By:** Rodriguez	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**All Results are emailed. Please provide Email address:** klowery@ensolum.com
			REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 5.4	**Sample Condition** Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	**CHECKED BY: (Initials)** SR	**Turnaround Time:** Standard ☑ Rush ☐ Thermometer ID #113 Correction Factor -0.5°C #140
	Corrected Temp. °C			**Bacteria (only) Sample Condition** Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

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FORM-006 R 3.2 10/07/21

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery	P.O. #:
Address: 601 N Marienfeld Street, Suite 400	Oxy, USA, Inc
City: Midland State: TX Zip: 79701	Attn: Wade Dittrich
Phone #: 214-733-3165 Fax #:	Address:
Project #: 03B1417160 Project Owner:	City:
Project Name: DR PI Federal Unit 18 7 IPP #022H	State: Zip:
Project Location: Lea County, NM	Phone #
Sampler Name: NKD/SK	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	Chloride 4500
H244153-31	FS 31	0.5	C	1			✓					✓		7-11-24	950	X	X	X

ANALYSIS REQUEST

NKD 7/11/2024

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Relinquished By: Kaan Shimada	Date: 7-11-24 Time: 1328	Received By: S Rodriguez	Verbal Result: ☐ Yes ☒ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: klowery@ensolum.com
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 5.4 Corrected Temp. °C	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials) SR

REMARKS:

Turnaround Time: Standard ☑ Rush ☐

Thermometer ID ~~#113~~ #140 Correction Factor ~~0.5°C~~

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

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		**BILL TO**	**ANALYSIS REQUEST**
Project Manager: Kelly Lowery		**P.O. #:**	
Address: 601 N Marienfeld Street, Suite 400		Oxy, USA, Inc	
City: Midland	**State:** TX **Zip:** 79701	Attn: Wade Dittrich	
Phone #: 214-733-3165	**Fax #:**	**Address:**	
Project #: 03B1417160	**Project Owner:**	**City:**	
Project Name: DR PI Federal Unit 18 7 IPP #022H		**State:** **Zip:**	
Project Location: Lea County, NM		**Phone #**	
Sampler Name: NKD/SK		**Fax #:**	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	Chloride 4500									
H244153																											
32	~~NFSS01~~	0.5	C	1			✓					✓		7-11-24	1021	✓	✓	✓									
33	SS02														958												
34	SS03														1023												
35	SS04														1046												
36	SS05														1054												
37	SS06														1128												
38	SS07														1129												
39	SS08														1110												
40	SS09	0.5	C	1			✓					✓		7-11-24	1130	✓	✓	✓									
	NFE				N	D	R												2024								

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Relinquished By: Kaoru Shimada	**Date:** 7-11-24 **Time:** 1328	**Received By:** S Rodriguez	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**All Results are emailed. Please provide Email address:** klowery@ensolum.com
			REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 5.4c Corrected Temp. °C	**Sample Condition** Cool ~~☐ Yes~~ ☐ No Intact ~~☐ Yes~~ ☐ No	**CHECKED BY: (Initials)** SRZ	**Turnaround Time:** Standard ☑ Rush ☐ Thermometer ID ~~#113~~ #140 Correction Factor ~~-0.5~~ C

Bacteria (only) Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

August 28, 2024

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: DR PI FEDERAL UNIT 18 7 IPP #022H

Enclosed are the results of analyses for samples received by the laboratory on 08/22/24 16:03.

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.

Cardinal Laboratories is accreditated 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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 01 1' (H245129-01)

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	08/23/2024	ND	2.18	109	2.00	0.878	
Toluene*	<0.050	0.050	08/23/2024	ND	2.14	107	2.00	2.79	
Ethylbenzene*	<0.050	0.050	08/23/2024	ND	2.25	113	2.00	4.30	
Total Xylenes*	<0.150	0.150	08/23/2024	ND	6.91	115	6.00	4.53	
Total BTEX	<0.300	0.300	08/23/2024	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	**96.0**	16.0	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *84.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 02 1' (H245129-02)

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	08/23/2024	ND	2.18	109	2.00	0.878	
Toluene*	<0.050	0.050	08/23/2024	ND	2.14	107	2.00	2.79	
Ethylbenzene*	<0.050	0.050	08/23/2024	ND	2.25	113	2.00	4.30	
Total Xylenes*	<0.150	0.150	08/23/2024	ND	6.91	115	6.00	4.53	
Total BTEX	<0.300	0.300	08/23/2024	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	**48.0**	16.0	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *79.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 03 1' (H245129-03)

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	08/23/2024	ND	2.18	109	2.00	0.878	
Toluene*	<0.050	0.050	08/23/2024	ND	2.14	107	2.00	2.79	
Ethylbenzene*	<0.050	0.050	08/23/2024	ND	2.25	113	2.00	4.30	
Total Xylenes*	<0.150	0.150	08/23/2024	ND	6.91	115	6.00	4.53	
Total BTEX	<0.300	0.300	08/23/2024	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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *79.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 04 1' (H245129-04)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	QM-07
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	QM-07
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.4 %* *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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *81.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 05 1' (H245129-05)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.5 %* *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	<16.0	16.0	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *79.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.5 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 06 1.5' (H245129-06)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.7 %* *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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *80.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 07 1' (H245129-07)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.0 %* *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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *89.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *98.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 08 1' (H245129-08)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.2 %* *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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	**19.4**	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *76.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *91.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 09 1' (H245129-09)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.8 %* *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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *86.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 10 1' (H245129-10)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.9 %* *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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	**12.6**	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *83.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: SW 11 1' (H245129-11)

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	08/24/2024	ND	2.10	105	2.00	2.68	
Toluene*	<0.050	0.050	08/24/2024	ND	1.99	99.7	2.00	2.15	
Ethylbenzene*	<0.050	0.050	08/24/2024	ND	2.03	102	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/24/2024	ND	6.02	100	6.00	1.88	
Total BTEX	<0.300	0.300	08/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.4 %* *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	08/26/2024	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	08/23/2024	ND	203	102	200	0.287	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	199	99.3	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane *81.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery Klowery@Ensolum.com	**P.O. #:**
Address: 601 N. Marienfeld St. STE 400	**Company:** OXY USA
City: Midland **State:** TX **Zip:** 79701	**Attn:** Wade Dittrich
Phone #: (214)733-3165 **Fax #:**	**Address:**
Project #: 03B1417160 **Project Owner:**	**City:**
Project Name: DB PI Federal Unit 187 IPP #022H	**State:** **Zip:**
Project Location: Lea County, NM	**Phone #:**
Sampler Name: Leah Nunez	**Fax #:**

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH 8015M	BTEX 8021B	Chloride 4500
H245129																		
1	SW01	1'	C	1			X					X		8/21/24	0940	X	X	X
2	SW02	1'	C	1			X					X			1040	X	X	X
3	SW03	1'	C	1			X					X			1340	X	X	X
4	SW04	1'	C	1			X					X			1400	X	X	X
5	SW05	1'	C	1			X					X			1410	X	X	X
6	SW06	1.5'	C	1			X					X			1415	X	X	X
7	SW07	1'	C	1			X					X			1325	X	X	X
8	SW08	1'	C	1			X					X			1435	X	X	X
9	SW09	1'	C	1			X					X			1335	X	X	X
10	SW10	1'	C	1			X					X		8/21/24	1430	X	X	X

NVE LN 8/21/24

Relinquished By:	**Date:** 8.22.24 **Time:** 1403	**Received By:**	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	**Date:** **Time:**	**Received By:**	All Results are emailed. Please provide Email address:
			REMARKS: LN AD 8.22.24 Samples are walk-in logged from cooler
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 1.4 C Corrected Temp. °C 0.8	Sample Condition Cool Yes ☐ Intact Yes ☐	CHECKED BY: (Initials) AD
			Turnaround Time: Standard ☒ Rush ☐ Thermometer ID #113 Correction Factor -0.5°C
			Bacteria (only) Sample Condition Cool ☐ Intact ☐ Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery Klowery@Ensolum.com	**P.O. #:**
Address: 601 N. Marienfeld St. STE 400	**Company:** OXY USA
City: Midland **State:** TX **Zip:** 79701	**Attn:** Wade Dittrich
Phone #: (214)733-3165 **Fax #:**	**Address:**
Project #: 03B1417160 **Project Owner:**	**City:**
Project Name: DB PI Federal Unit 18 7 IPP #027H	**State:** **Zip:**
Project Location: Lea County, NM	**Phone #:**
Sampler Name: Leah Nunez	**Fax #:**

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH 8015M	BTEX 8021B	Chlorides 4500
H245139 11	SW 11	1'	C	1			X					X		8/21/24	1430	X	X	X

NFE

LW

8/21/24

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 8.22.24	**Received By:**	**Verbal Result:** ☐ Yes ☐ No	**Add'l Phone #:**
	Time: 1603		**All Results are emailed. Please provide Email address:**	
Relinquished By:	**Date:**	**Received By:**	**REMARKS:** LW	MP 8.22.24
	Time:		samples are well logged from code.	

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	**Observed Temp. °C** 1.4°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** AD	**Turnaround Time:** Standard ☒ Rush ☐ AD 8.22.24	**Bacteria (only) Sample Condition** Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C
	Corrected Temp. °C 0.9°C			**Thermometer ID** #113 **Correction Factor** -0.5°C	Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

August 28, 2024

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: DR PI FEDERAL UNIT 18 7 IPP #022H

Enclosed are the results of analyses for samples received by the laboratory on 08/22/24 16:03.

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.

Cardinal Laboratories is accreditated 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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: FS - 05 1' (H245132-01)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	**88.6**	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*85.0 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*113 %*	*49.1-148*

Sample ID: FS - 09 1' (H245132-02)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*77.8 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*101 %*	*49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: FS - 10 1' (H245132-03)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	**548**	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*86.1 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*110 %*	*49.1-148*

Sample ID: FS - 11 1' (H245132-04)

TPH 8015M **mg/kg** **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**12.6**	10.0	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	**924**	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*89.3 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*115 %*	*49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: FS - 13 1.5' (H245132-05)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*83.4 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*108 %*	*49.1-148*

Sample ID: FS - 16 1' (H245132-06)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*85.0 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*107 %*	*49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: FS - 19 1' (H245132-07)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*80.3 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*104 %*	*49.1-148*

Sample ID: FS - 20 1' (H245132-08)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*75.8 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*97.9 %*	*49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: FS - 25 1' (H245132-09)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*74.4 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*94.5 %*	*49.1-148*

Sample ID: FS - 26 1' (H245132-10)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*79.1 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*102 %*	*49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/22/2024	Sampling Date:	08/21/2024
Reported:	08/28/2024	Sampling Type:	Soil
Project Name:	DR PI FEDERAL UNIT 18 7 IPP #022H	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Alyssa Parras
Project Location:	OXY LEA COUNTY, NM		

Sample ID: FS - 27 1' (H245132-11)

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	08/23/2024	ND	217	108	200	3.91	
DRO >C10-C28*	<10.0	10.0	08/23/2024	ND	206	103	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	08/23/2024	ND					

Surrogate: 1-Chlorooctane	*77.7 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*101 %*	*49.1-148*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery Klowery@Ensolum.com	**P.O. #:**
Address: 601 N. Marienfeld St. STE 400	**Company:** OXY USA
City: Midland **State:** TX **Zip:** 79701	**Attn:** Wade Dittrich
Phone #: (214)733-3165 **Fax #:**	**Address:**
Project #: 03B1417160 **Project Owner:**	**City:**
Project Name: DR PI Federal Unit 18 7 IPP #022H	**State:** **Zip:**
Project Location: Lea County, NM	**Phone #:**
Sampler Name: Leah Nunez	**Fax #:**

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH 8015M
H215132																
1	FS-05	1'	C	1			X					X		8/21/24	1305	X
2	FS-09	1'	C	1			X					X		8/21/24	1320	X
3	FS-10	1'	C	1			X					X		8/21/24	1315	X
4	FS-11	1'	C	1			X					X		8/21/24	1310	X
5	FS-13	1.5'	C	1			X					X		8/21/24	1345	X
6	FS-16	1'	C	1			X					X		8/21/24	1330	X
7	FS-19	1'	C	1			X					X		8/21/24	1210	X
8	FS-20	1'	C	1			X					X		8/21/24	1215	X
9	FS-25	1'	C	1			X					X		8/21/24	0935	X
10	FS-26	1'	C	1			X					X		8/21/24	1035	X

Relinquished By:	**Date:** 8.22.24 **Time:** 1603	**Received By:**	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
			All Results are emailed. Please provide Email address:
Relinquished By:	**Date:** **Time:**	**Received By:**	**REMARKS:** Samples are wade logged from above. LN AP 8.22.24
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	**Observed Temp. °C** 1.4 **Corrected Temp. °C** 0.8	**Sample Condition** Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	**CHECKED BY: (Initials)** AP
			Turnaround Time: Standard ☒ Rush ☐ AP 8.22.24 **Thermometer ID** #113 +1.4° **Correction Factor** -0.5°C -0.6°
			Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No **Observed Temp. °C** **Corrected Temp. °C**

FORM-006 R 3.2 10/07/21

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CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Kelly Lowery Klowery@Ensolum.com	**P.O. #:**
Address: 601 N. Marienfeld St. STE 400	**Company:** OXY USA
City: Midland **State:** TX **Zip:** 79701	**Attn:** Wade Dittrich
Phone #: (214)733-3165 **Fax #:**	**Address:**
Project #: 03B1417160 **Project Owner:**	**City:**
Project Name: DR PI Federal Unit 18 7 IPP #022H	**State:** **Zip:**
Project Location: Lea County, NM	**Phone #:**
Sampler Name: Leah Nunez	**Fax #:**

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH 8015M
H245132 11	FS-27	1'	C	1			X					X		8/21/24	1030	X

NFE

10

8/21/24

Relinquished By:	**Date:** 8.22.24 **Time:** 1403	**Received By:** AP Acuna	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
			All Results are emailed. Please provide Email address:
Relinquished By:	**Date:** **Time:**	**Received By:**	**REMARKS:** LN AD 8.22.24 Samples are Walk logged from code
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	**Observed Temp. °C** 1.4°C **Corrected Temp. °C** 0.8°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No	**CHECKED BY: (Initials)** AD

Turnaround Time: Standard ☒ Rush ☐ AD 8.22.24 †
Thermometer ID #113 **Correction Factor** ~~0.5°C~~ +0.0 -0.6°C
Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No **Observed Temp. °C** **Corrected Temp. °C**

FORM-006 R 3.2 10/07/21

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CARDINAL Laboratories

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

September 19, 2024

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: LEA LAND CALICHE PIT

Enclosed are the results of analyses for samples received by the laboratory on 09/16/24 14:00.

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

Cardinal Laboratories is accreditated 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

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM, LLC
BEAUX JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	09/16/2024	Sampling Date:	09/13/2024
Reported:	09/19/2024	Sampling Type:	Soil
Project Name:	LEA LAND CALICHE PIT	Sampling Condition:	Cool & Intact
Project Number:	03B1417160	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: LEA LAND CALICHE PIT 0.5' (H245619-01)

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	09/17/2024	ND	2.04	102	2.00	2.40	
Toluene*	<0.050	0.050	09/17/2024	ND	1.91	95.7	2.00	2.59	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	1.93	96.4	2.00	2.47	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	5.72	95.4	6.00	2.68	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	09/17/2024	ND	416	104	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	09/17/2024	ND	204	102	200	0.238	
DRO >C10-C28*	**98.6**	10.0	09/17/2024	ND	202	101	200	5.70	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane *70.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC		BILL TO	
Project Manager: Beaux Jennings		P.O. #:	
Address: 601 N. Marienfeld St. STE 400		Company: OXY USA	
City: Midland	State: TX Zip: 79701	Attn: Wade Dittrich	
Phone #: (210)219-8858	Email:bjennings@ensolum.com	Address:	
Project #: 03B1417160	Project Owner:	City:	
Project Name: Lea Land Caliche Pit		State: Zip:	
Project Location:		Phone #:	
Sampler Name: Kaoru Shimada		Email:	

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST				
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX 8021B	TPH 8015M	Chloride 4500	Hold	
H245619	Lea Land Caliche Pit	0.5	C	1			X					X		9-13-24	1041	X	X	X		

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Kaoru Shimada	Date: 9.16.24 Time: 1400	Received By:	Verbal Result: ☐ Yes ☒ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: bjennings@ensolum.com, klowery@ensolum.com
			REMARKS: Paykey/AFE/NonAFE:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 4.3 Corrected Temp. °C 5.7	Sample Condition Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No	CHECKED BY: (Initials)	Turnaround Time: Standard ☒ Bacteria (only) Sample Condition Rush ☐ Cool Intact Observed Temp. °C Thermometer ID ~~#113~~ #140 Correction Factor ~~0.5°C~~ -0.6 ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

QUESTIONS

Action 407619

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2407545309**
Incident Name	**NAPP2407545309 DR PI FEDERAL UNIT 18 7 IPP #022H @ 30-025-48157**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-025-48157] DR PI UNIT #022H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	DR PI FEDERAL UNIT 18 7 IPP #022H
Date Release Discovered	03/05/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Human Error | Frac Tank | Produced Water | Released: 20 BBL | Recovered: 10 BBL | Lost: 10 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.*

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/02/2024

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission		Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.		
Have the lateral and vertical extents of contamination been fully delineated		Yes
Was this release entirely contained within a lined containment area		No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		
Chloride	(EPA 300.0 or SM4500 Cl B)	7520
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	6493
GRO+DRO	(EPA SW-846 Method 8015M)	6493
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		03/05/2024
On what date will (or did) the final sampling or liner inspection occur		08/21/2024
On what date will (or was) the remediation complete(d)		08/21/2024
What is the estimated surface area (in square feet) that will be reclaimed		6231
What is the estimated volume (in cubic yards) that will be reclaimed		160
What is the estimated surface area (in square feet) that will be remediated		6231
What is the estimated volume (in cubic yards) that will be remediated		160
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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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*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: 12/02/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**374542**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**08/21/2024**
What was the (estimated) number of samples that were to be gathered	**20**
What was the sampling surface area in square feet	**2400**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	6231
What was the total volume (cubic yards) remediated	160
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	N/A

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

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/02/2024

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407619
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	None	3/11/2025