

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

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

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

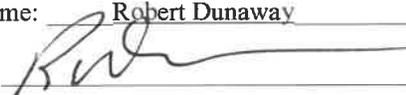
## Closure

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 (electronic submittals in .pdf format are preferred) 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.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

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.

Printed Name: Robert Dunaway Title: Senior Environmental Engineer  
Signature:  Date: 6/12/23  
email: rhunaway@eprod.com Telephone: 575-628-6802

Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

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Incident ID	NAPP2308225219
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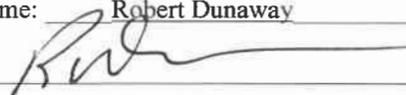
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Printed Name: Robert Dunaway Title: Senior Environmental Engineer  
Signature:  Date: 6/12/23  
email: rhduaway@eprod.com Telephone: 575-628-6802

Oil Conservation Division

Incident ID	NAPP2308225219
District RP	
Facility ID	
Application ID	

**OCD Only**

Received by: Robert Hamlet

Date: 11/14/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet

Date: 11/14/2023

Printed Name: Robert Hamlet

Title: Environmental Specialist - Advanced



**CLOSURE REPORT**

Property:

**Line B-7**

**Unit B, S18, T20S, R29E  
32.580324° N, 104.11217° W  
Eddy County, New Mexico  
NMOCD Incident ID: nAPP2308225219**

June 12, 2023

Ensolum Project No. 03B1226237

Prepared for:

**Enterprise Field Services, LLC  
PO Box 4324  
Houston, TX 77210**

**Attn: Robert Dunaway**

Prepared by:

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Kelly Lowery, GIT  
Project Manager

---

Beaux Jennings  
Senior Project Manager



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# ENSOLUM

## CLOSURE REPORT

### Line B-7

**Unit B, S18, T20S, R29E  
32.580324° N, 104.11217° W  
Eddy County, New Mexico  
NMOCD Incident ID: nAPP2308225219**

**Ensolum Project No. 03B1226237**

## 1.0 INTRODUCTION

### 1.1 Site Description & Background

<b>Operator:</b>	Enterprise Field Services, LLC (Enterprise)
<b>Site Name:</b>	Line B-7
<b>Location:</b>	Unit B, Section 18, Township 20 South, Range 29 East 32.580324° N, 104.11217° W Eddy County, New Mexico
<b>Property:</b>	Bureau of Land Management (BLM)
<b>Regulatory:</b>	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On March 23, 2023, a rupture on the B-7 gathering pipeline was discovered. Approximately 13,000 one-thousand cubic feet (MCF) of natural gas was released to the atmosphere, along with 7 barrels (bbls) of condensate released as overspray, contacting the ground surface and impacting an area approximately 266 feet long by 74 feet wide, with 0 bbls recovered. Enterprise reported the release to the New Mexico EMNRD OCD via a report through the online notice of release (NOR) form on March 23, 2023. The release was assigned Incident Number nAPP2308225219.

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

### 1.2 Project Objective

The primary objective of the closure activities was to reduce constituent of concern (COC) concentrations in the on-Site soils to below 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 Enterprise, 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. The gas portion of this release constitutes venting that occurred during an emergency or a malfunction, as authorized by the New Mexico OCD regulations at NMAC 19.15.28.8.A and B(1). This release therefore is not prohibited by NMAC 19.15.29.8.A. Supporting

documentation and figures associated with the following bullets are provided in **Appendix B**. One exploratory water well was identified adjacent west to the Site on the OSE Water Rights Reporting System (WRRS) database.

- The Site is not located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse.
- The Site is not located within 200 feet of a lakebed, sinkhole or playa lake.
- The Site is not located within 300 feet from 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 (5) households for domestic or stock water purposes identified within 500 feet of the Site.
- According to the OSE WRSS database there are no freshwater wells identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to 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 GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- Based on the Karst Occurrence Potential (.kmz) provided by the BLM, the Site is located within an unstable area, also referred to as high karst.
- The Site is not located within a 100-year floodplain.

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

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

### 3.0 SOIL REMEDIATION ACTIVITIES

On March 23, 2023, a rupture on the B-7 gathering pipeline was discovered. Approximately 13,000 MCF of natural gas was released to the atmosphere, along with 7 bbls of condensate were released as overspray, contacting the ground surface impacting an area approximately 266 feet long by 74 feet wide, with 0 bbls recovered.

On March 23, 2023, following submittal of an emergency New Mexico One-Call (NM-811), corrective action activities were commenced by New Mexico Rental Pipeline, LLC (NMR) utilizing a backhoe to excavate soils from the release area.

On March 23, 2023, Ensolum arrived on-Site to collect one composite soil sample (FS-01) from the initial extent of excavation to determine if further excavation was required. The composite soil sample was collected at a depth of 4 feet below ground surface (bgs). Based on laboratory analytical data, further excavation and sampling was required.

On April 11, 2023, Ensolum and NMR arrived on-Site to conduct additional excavation and soil sampling activities. Ensolum collected six composite floor soil samples (FS01 through FS06) and six composite sidewall soil samples (SW01 through SW06) subsequent to field screening and excavation activities. Additionally, based on field screenings collected from the excavation floor, it was determined that three composite borehole soil samples (BH01 C through BH03 C) would be collected to determine the vertical extent of delineation. The six composite floor soil samples (FS01 through FS06) were each collected at a depth of 4 feet bgs, the six composite sidewall soil samples (SW01 through SW06) were each collected at a depth of 0–4 feet bgs, and the composite borehole soil samples (BH01 C, BH02 C, and BH03 C) were collected at depths of 7 feet, 12 feet, and 7 feet bgs respectively.

During this time, with oversight by Ensolum, NMR scraped the overspray area based on visual and olfactory evidence of impairment. Ensolum collected 23 confirmation overspray soil samples (OS01 through OS23), each at a depth of 0.5 feet bgs, subsequent to scraping activities. Additionally, Ensolum collected seven composite stockpile soil samples (SP01 through SP07) from the stockpiles staged adjacent to the excavation.

On April 27, 2023, Ensolum arrived on-Site to collect final confirmation delineation samples (North, East, South, and West) from outside the overspray area, subsequent to remediation activities. The confirmation delineation soil samples were each collected at a depth of 0.25 feet bgs.

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

The final excavation area measured approximately 114 feet long and 16 to 18 feet wide at the maximum extents, with a depth of 4 feet bgs.

The final overspray extent area measured approximately 266 feet long and 74 feet wide, with a depth of 0.5 feet bgs.

The lithology encountered during the completion of closure activities consisted primarily of unconsolidated silty sand.

A total of approximately 1,000 cubic yards of petroleum hydrocarbon affected soils were transported to the Lea Land, LLC facility in Carlsbad, New Mexico. The excavation extent and overspray area will be backfilled with clean imported fill, contoured to the original surrounding grade, and a BLM approved seed mixture will be sown into the surface area of the backfill for re-vegetation.

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

#### 4.0 SOIL SAMPLING PROGRAM

Ensolum's soil sampling program from March 23, 2023, through April 27, 2023, included the collection of a total of seven composite soil samples from seven locations on the excavation floor (FS-01, and FS01 through FS06), three composite soil samples from three borehole locations (BH01 C through BH03 C), and six composite soil samples from six locations on the excavation sidewalls (SW01 through SW06) from the excavation extent, as well as 23 confirmation soil samples from 23 locations within the overspray area (OS01 through OS23) for laboratory analysis. In addition, four confirmation delineation soil samples were collected from four locations (North, East, South and West) outside of the overspray area and seven composite stockpile soil samples were collected from seven stockpile locations (SP01 through SP07) for laboratory analysis.

The composite and confirmation 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 confirmation soil samples were analyzed for BTEX using Environmental Protection Agency (EPA) SW-846 Method 8021B, TPH GRO/DRO/MRO using EPA SW-846 Method 8015M, and chloride using EPA Method 300.0 and/or SM4500Cl-B.

Laboratory analytical results are summarized in **Table 1** 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 total benzene, BTEX, TPH GRO/DRO/MRO, and chloride concentrations or laboratory sample detection limits (SDLs) associated with the composite soil samples (FS-01, FS01 through FS06, SW01 through SW06, BH01 C through BH03 C, and SP01 through SP07) and the confirmation soil samples (OS01 through OS23 and North, East, South, and West) remaining in place to the NMOCD Closure Criteria.

- Laboratory analytical results indicate total benzene concentrations for the final composite and confirmation soil samples collected from the excavation extent, the overspray area, and the delineation samples outside of the impacted area do not exceed the laboratory SDLs and/or the NMOCD Closure Criteria of 10 milligrams per kilogram (mg/kg).
- Laboratory analytical results indicate total benzene concentrations for the final composite soil samples collected from the stockpiles staged on-Site do not exceed the laboratory SDLs and/or the NMOCD Closure Criteria of 10 mg/kg.
- Laboratory analytical results indicate that total BTEX concentrations for the final composite and confirmation soil samples collected from the excavation extent, the overspray area, and the delineation samples outside of the impacted area do not exceed the laboratory SDLs and/or the NMOCD Closure Criteria of 50 mg/kg.
- Laboratory analytical results indicate that total BTEX concentrations for the final composite soil samples collected from the stockpiles staged on-Site do not exceed the laboratory SDLs and/or the NMOCD Closure Criteria of 50 mg/kg.

- Laboratory analytical results indicate a combined TPH GRO/DRO/MRO concentration for one composite soil sample collected from the initial excavation extent floor (FS-01 at 4 feet bgs) exhibited a concentration of 816 mg/kg, which exceeds the applicable NMOCD Closure Criteria of 100 mg/kg from ≤50 feet. The soil in this location was scraped and subsequently removed for off-Site disposal.
- Laboratory analytical results indicate combined TPH GRO/DRO/MRO concentrations for the final composite and confirmation soil samples collected from the excavation extent, the overspray area, and the delineation samples outside of the impacted area are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 100 mg/kg from ≤50 feet.
- Laboratory analytical results indicate combined TPH GRO/DRO/MRO concentrations for the final composite soil samples collected from the stockpiles staged on-Site are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 100 mg/kg from ≤50 feet.
- Laboratory analytical results indicate a chloride concentration for one composite soil sample collected from the initial excavation extent floor (FS-01 at 4 feet bgs) exhibited a concentration of 667 mg/kg, which exceeds the applicable NMOCD Closure Criteria of 600 mg/kg from ≤50 feet. The soil in this location was scraped and subsequently removed for off-Site disposal.
- Laboratory analytical results indicate chloride concentrations for the final composite and confirmation soil samples collected from the excavation extent, the overspray area, and the delineation samples outside of the impacted area do not exceed the laboratory SDLS and/or NMOCD Closure Criteria of 600 mg/kg.
- Laboratory analytical results indicate chloride concentrations for the final composite soil samples collected from the stockpiles staged on-Site do not exceed the laboratory SDLS and/or NMOCD Closure Criteria of 600 mg/kg.

Laboratory analytical results are summarized in **Table 1** in **Appendix D**.

## 7.0 RECLAMATION AND RE-VEGETATION

Subsequent to the results of the final confirmation soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal. The excavation extent area and the overspray area will be backfilled with clean fill material, and then contoured to the original surrounding grade. Once the areas are brought back to original grade, a BLM approved seed mixture will be sown into the surface of the backfill for re-vegetation.

## 8.0 FINDINGS AND RECOMMENDATION

- On March 23, 2023, a rupture on the B-7 gathering pipeline was discovered. Approximately 13,000 MCF of natural gas was released to the atmosphere, along with 7 bbls of condensate were released as overspray, contacting the ground surface impacting an area approximately 266 feet long by 74 feet wide, with 0 bbls recovered.
- On March 23, 2023, following submittal of an emergency New Mexico One-Call (NM-811), corrective action activities were commenced by NMR utilizing a backhoe to excavate soils from the release area.
- On March 23, 2023, Ensolum arrived on-Site to collect one composite soil sample (FS-01) from the initial extent of excavation to determine if further excavation was required. The composite soil sample was collected at a depth of 4 feet bgs. Based on laboratory analytical data, further excavation and sampling was required.

- On April 11, 2023, Ensolum and NMR arrived on-Site to conduct additional excavation and soil sampling activities. Ensolum collected six composite floor soil samples (FS01 through FS06) and six composite sidewall soil samples (SW01 through SW06) subsequent to field screening and excavation activities. Additionally, based on field screenings collected from the excavation floor, it was determined that three composite borehole soil samples (BH01 C through BH03 C) would be collected to determine the vertical extent of delineation. The six composite floor soil samples (FS01 through FS06) were each collected at a depth of 4 feet bgs, the six composite sidewall soil samples (SW01 through SW06) were each collected at a depth of 0–4 feet bgs, and the composite borehole soil samples (BH01 C, BH02C, and BH03 C) were collected at depths of 7 feet, 12 feet, and 7 feet bgs respectively.

During this time, with oversight by Ensolum, NMR scraped the overspray area based on visual and olfactory evidence of impairment. Ensolum collected 23 confirmation overspray soil samples (OS01 through OS23), each at a depth of 0.5 feet bgs, subsequent to scraping activities. Additionally, Ensolum collected seven composite stockpile soil samples (SP01 through SP07) from the stockpiles staged adjacent to the excavation.

- On April 27, 2023, Ensolum arrived on-Site to collect final confirmation delineation samples (North, East, South, and West) from outside the overspray area, subsequent to remediation activities. The confirmation delineation soil samples were each collected at a depth of 0.25 feet bgs.
  - The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the 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 114 feet long and 16 to 18 feet wide at the maximum extents, with a depth of 4 feet below ground surface (bgs).
- The final overspray extent area measured approximately 266 feet long and 74 feet wide, with a depth of 0.5 feet bgs.
- A total of ten composite soil samples from ten locations on the excavation floor (FS-01, FS01 through FS06, and BH01 C through BH03 C), and six composite soil samples from six locations on the excavation sidewalls (SW01 through SW06) from the excavation extent as well as twenty-three confirmation soil samples from twenty-three locations within the overspray area (OS01 through OS23) were collected. In addition, four confirmation delineation soil samples were collected from four locations (North, East, South and West) outside of the overspray area and seven composite stockpile soil samples were collected from seven stockpile locations (SP01 through SP07).
- Based on the laboratory analytical results, the final composite and confirmation soil samples collected from the excavation extent, the overspray area, and the delineation samples outside of the impacted area did not exhibit total benzene, total BTEX, TPH GRO/DRO/MRO or chloride concentrations above the applicable NMOCD Closure Criteria.
- Based on the laboratory analytical results, the final composite soil samples collected from the soil stockpiles staged on-Site did not exhibit benzene, total BTEX, TPH GRO/DRO/MRO or chloride concentrations above the applicable NMOCD Closure Criteria.
- Subsequent to the results of the composite and confirmation soil sampling, the soil stockpiles staged on-Site were removed and taken off-Site for proper disposal. A total of approximately 1,000 cubic yards of petroleum hydrocarbon affected soils were transported to the Lea Land, LLC facility in Carlsbad, New Mexico. The excavation extent and the overspray area will be backfilled with clean fill material, contoured to the original surrounding grade, and a BLM approved seed mixture will be sown into the surface area of the backfill for re-vegetation.

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 at 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 Enterprise Field Services, LLC, 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 Enterprise Field Services, LLC 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.

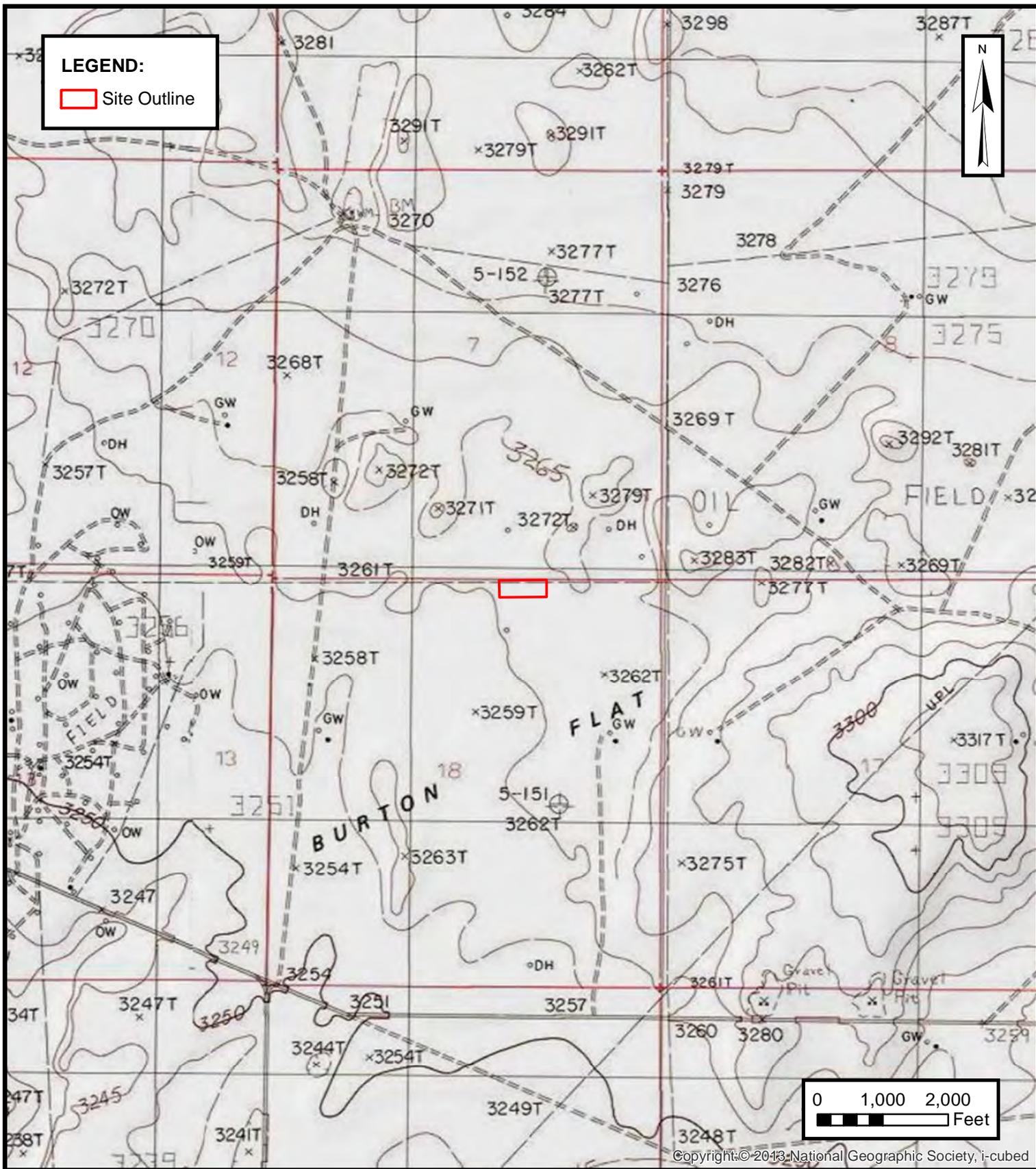


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## APPENDIX A

### Figures

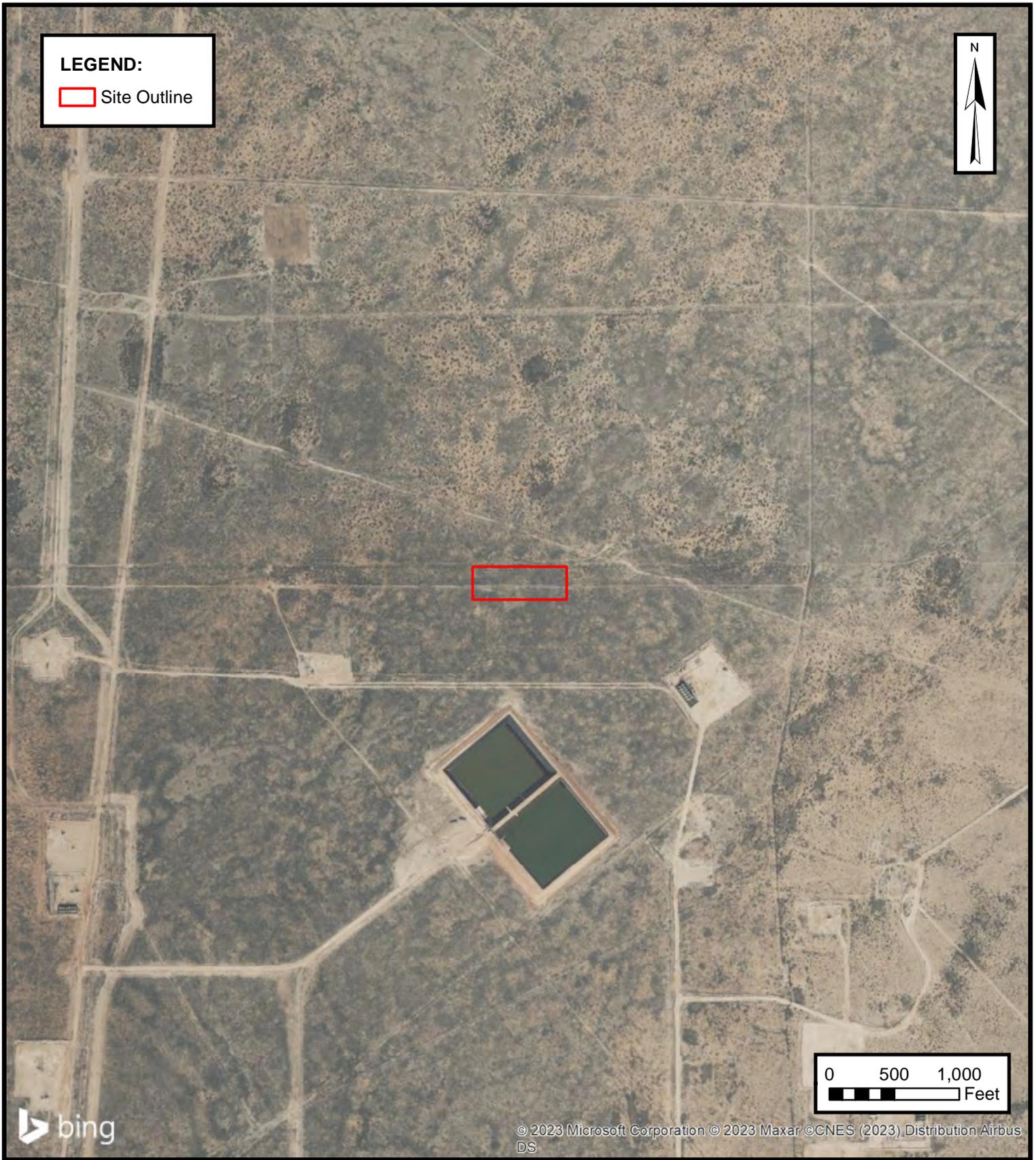
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**ENSOLUM**  
 Environmental, Engineering and  
 Hydrogeologic Consultants

**TOPOGRAPHIC MAP**  
 ENTERPRISE FIELD SERVICES, LLC  
 LINE B-7  
 Eddy County, New Mexico  
 32.580324° N, 104.11217° W  
 PROJECT NUMBER: 03B1226237

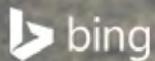
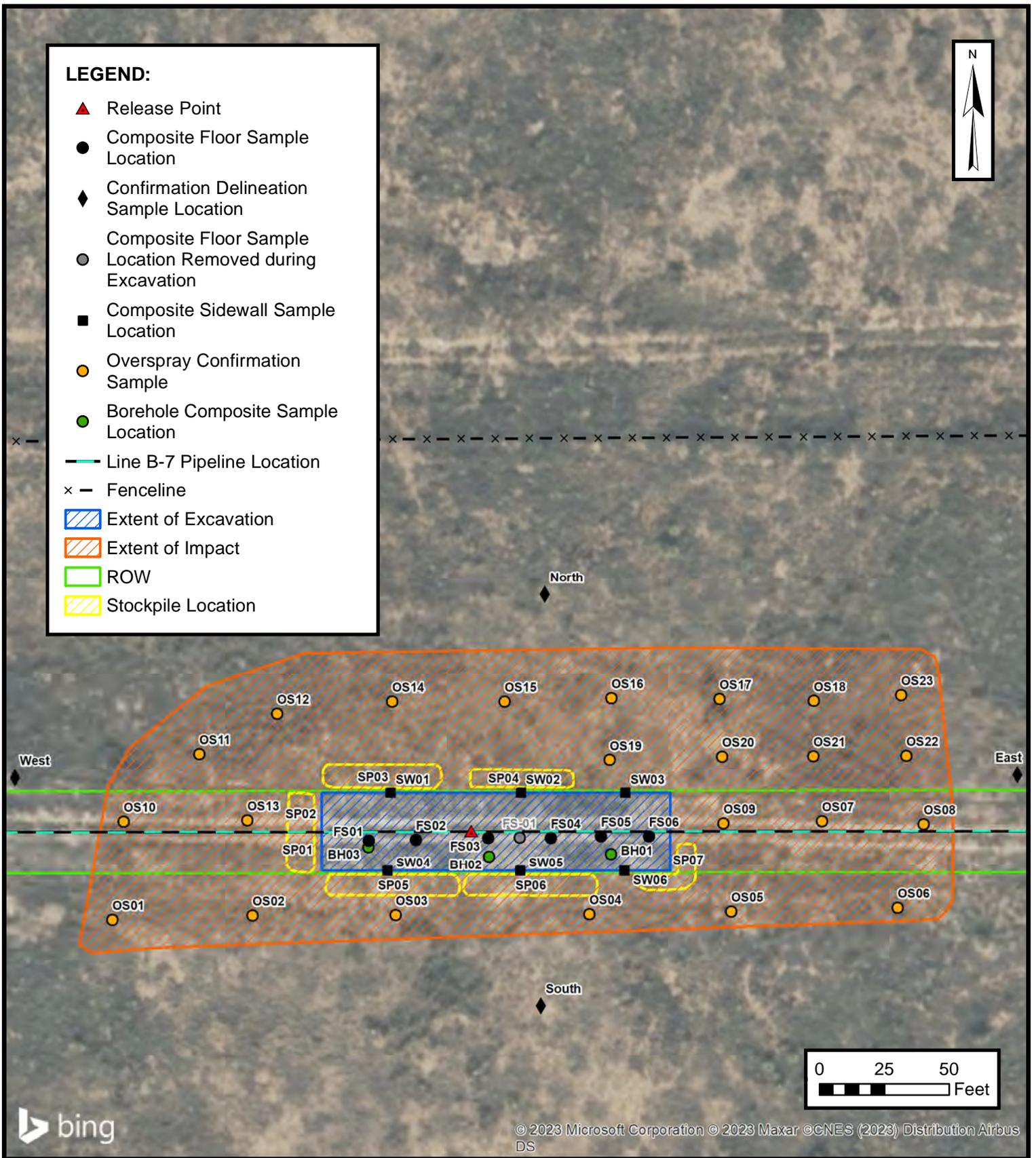
**FIGURE**  
**1**



**ENSOLUM**  
 Environmental, Engineering and  
 Hydrogeologic Consultants

**SITE VICINITY MAP**  
 ENTERPRISE FIELD SERVICES, LLC  
 LINE B-7  
 Eddy County, New Mexico  
 32.580324° N, 104.11217° W  
 PROJECT NUMBER: 03B1226237

**FIGURE**  
**2**

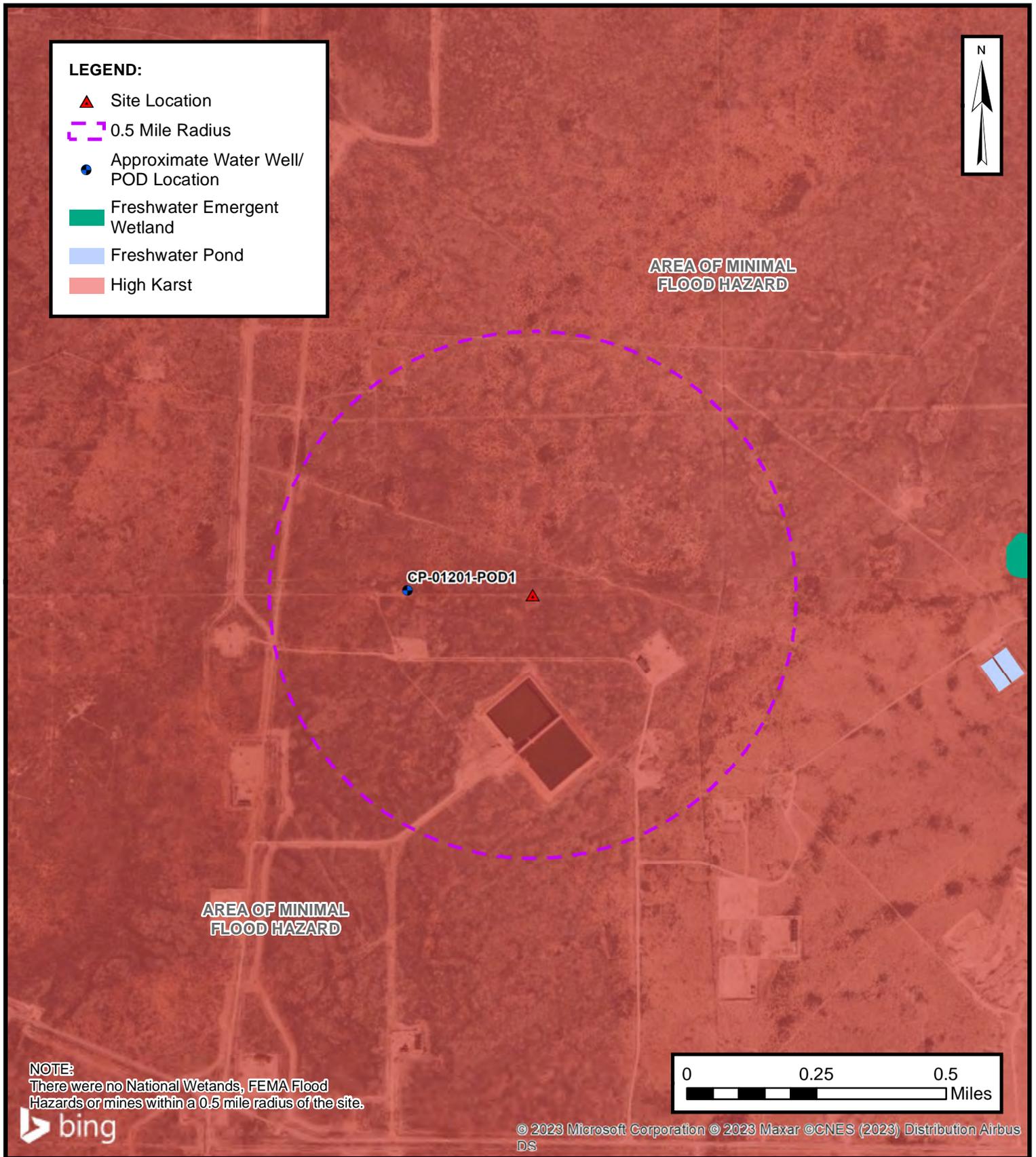


**SITE MAP**

ENTERPRISE FIELD SERVICES, LLC  
LINE B-7  
Eddy County, New Mexico  
32.580324° N, 104.11217° W

PROJECT NUMBER: 03B1226237

**FIGURE**  
**3**



**CLOSURE CRITERIA MAP**

ENTERPRISE FIELD SERVICES, LLC  
 LINE B-7  
 Eddy County, New Mexico  
 32.580324° N, 104.11217° W

PROJECT NUMBER: 03B1226237

**FIGURE**  
**4**



---

## APPENDIX B

### Supporting Documentation

---

**From:** [Taylor, Shelly J](#)  
**To:** [Dunaway, Robert](#)  
**Subject:** Re: [EXTERNAL] Pipeline Rupture Affected Area  
**Date:** Monday, March 27, 2023 1:36:55 PM  
**Attachments:** [image001.png](#)  
[Outlook-4s5t4koi.png](#)

---

[Use caution with links/attachments]

You are cleared to proceed.

Sincerely,

*Shelly J Taylor*

Environmental Protection Specialist  
Realty - Compliance

Bureau of Land Management/Carlsbad Field Office  
620 E. Greene St  
Carlsbad, NM 88220  
Direct 575.234.5706  
Mobile 575.499.6831  
[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)

Spill/Release email: [BLM\\_NM\\_CFO\\_REALTY\\_SPILL@BLM.GOV](mailto:BLM_NM_CFO_REALTY_SPILL@BLM.GOV)

**PLEASE NOTE: I have a new email address: [sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)**



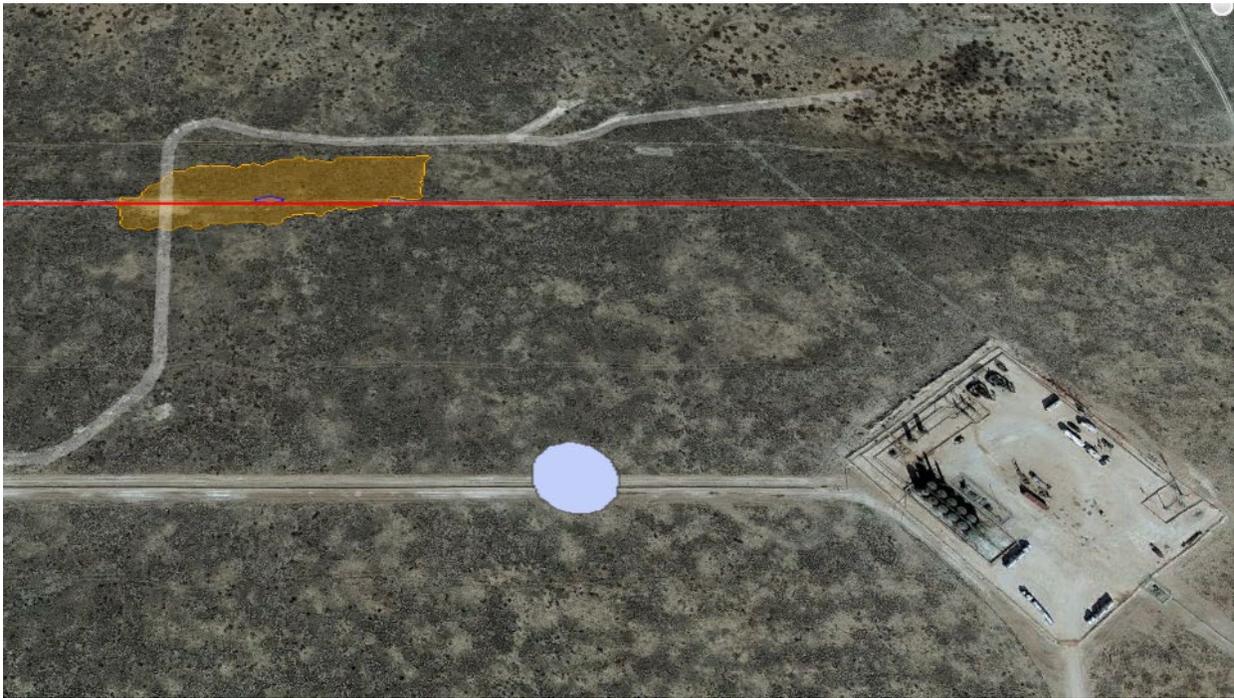
---

**From:** Dunaway, Robert <[rhodunaway@eprod.com](mailto:rhodunaway@eprod.com)>  
**Sent:** Monday, March 27, 2023 12:47 PM  
**To:** Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>  
**Subject:** [EXTERNAL] Pipeline Rupture Affected Area

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good afternoon, Shelly.

I have included a screenshot of the affected area from the pipeline rupture (yellow). It doesn't go towards the arch site (blue circle). Most of that area is overspray and shouldn't present a problem.



**Robert Dunaway**  
Senior Environmental Engineer  
W: 575-628-6802  
C: 361-815-0990  
rhdunaway@eprod.com

---

This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.

## Kelly Lowery

---

**From:** Kelly Lowery  
**Sent:** Tuesday, April 4, 2023 6:12 PM  
**To:** Dunaway, Robert  
**Subject:** FW: [EXTERNAL] Line B-7 (Incident ID # nAPP2308225219)

Good evening Rob,

For your records. I've saved a copy in our folders as well.

Thank you



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

---

**From:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Sent:** Tuesday, April 4, 2023 9:20 AM  
**To:** Kelly Lowery <klowery@ensolum.com>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>  
**Subject:** RE: [EXTERNAL] Line B-7 (Incident ID # nAPP2308225219)

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

Kelly,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



**From:** Kelly Lowery <[klowery@ensolum.com](mailto:klowery@ensolum.com)>  
**Sent:** Monday, April 3, 2023 2:41 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrn.dnm.gov](mailto:OCD.Enviro@emnrn.dnm.gov)>  
**Subject:** [EXTERNAL] Line B-7 (Incident ID # nAPP2308225219)

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

Good morning,

On behalf of Enterprise Field Services, LLC, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Line B-7 (Incident ID # nAPP2308225219) on Thursday, April 6<sup>th</sup> through Friday, April 7<sup>th</sup>. The samples may be used for closure, provided that they meet applicable closure limits.

Thank you



**Kelly Lowery, GIT**

Staff Geologist

214-733-3165

Ensolum, LLC

in f

**Kelly Lowery**

---

**From:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Sent:** Tuesday, April 25, 2023 10:27 AM  
**To:** Kelly Lowery  
**Cc:** Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD  
**Subject:** RE: [EXTERNAL] Line B-7 (Incident ID #nAPP2308225219)

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

Kelly,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



---

**From:** Kelly Lowery <klowery@ensolum.com>  
**Sent:** Monday, April 24, 2023 10:37 AM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Subject:** [EXTERNAL] Line B-7 (Incident ID #nAPP2308225219)

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

Good morning,

On behalf of Enterprise Field Services, LLC, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Line B-7 (Incident ID # nAPP2308225219) on Thursday, April 27<sup>th</sup>. The samples may be used for closure, provided that they meet applicable closure limits.

Thank you

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

# National Flood Hazard Layer FIRMette



104°7'4"W 32°35'6"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

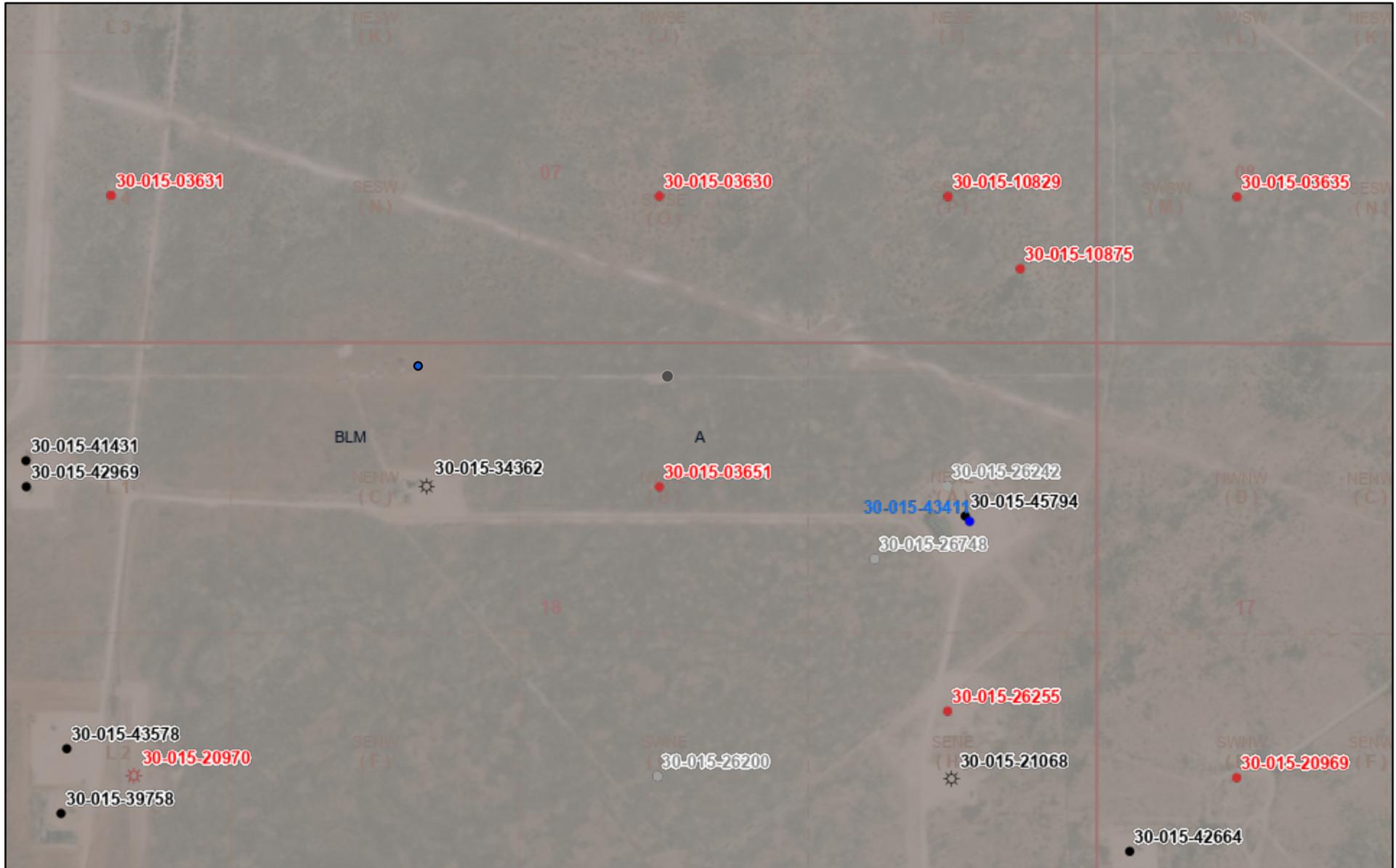
0 250 500 1,000 1,500 2,000 Feet 1:6,000 104°6'27"W 32°34'35"N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/23/2023 at 10:47 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

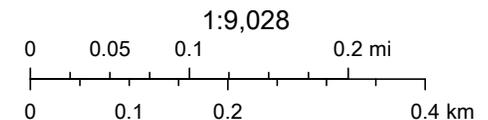
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# Karst Potential and OSE POD Locations Map



3/23/2023, 3:18:38 PM

- |                     |                  |                |                                    |
|---------------------|------------------|----------------|------------------------------------|
| OSE Water PODs      | ☼ Gas, Plugged   | ● Oil, New     | Karst Occurrence Potential         |
| ● Active            | ● Oil, Active    | ● Oil, Plugged | ■ High                             |
| Wells - Large Scale | ● Oil, Cancelled |                | Mineral Ownership                  |
| ☼ Gas, Active       |                  |                | ■ A-All minerals are owned by U.S. |



U.S. BLM, BLM, OCD, New Mexico Tech, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., USGS,

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division



# New Mexico Office of the State Engineer

## Point of Diversion Summary

<b>Well Tag</b>	<b>POD Number</b>	(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)		(NAD83 UTM in meters)	
		<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
	CP 01201 POD1	2	2	1	18	20S	29E	582983	3605121

<b>Driller License:</b>	1348	<b>Driller Company:</b>	TAYLOR WATER WELL SERVICE
<b>Driller Name:</b>	TAYLOR, CLINTON E.		
<b>Drill Start Date:</b>	10/24/2013	<b>Drill Finish Date:</b>	10/24/2013
<b>Log File Date:</b>	11/08/2013	<b>PCW Rcv Date:</b>	
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>	
<b>Casing Size:</b>	6.00	<b>Depth Well:</b>	140 feet
		<b>Plug Date:</b>	
		<b>Source:</b>	Shallow
		<b>Estimated Yield:</b>	100 GPM
		<b>Depth Water:</b>	100 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	100	130	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	79	119

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/23/23 7:44 AM

POINT OF DIVERSION SUMMARY



**U.S. Fish and Wildlife Service**  
**National Wetlands Inventory**

Line B-7



March 23, 2023

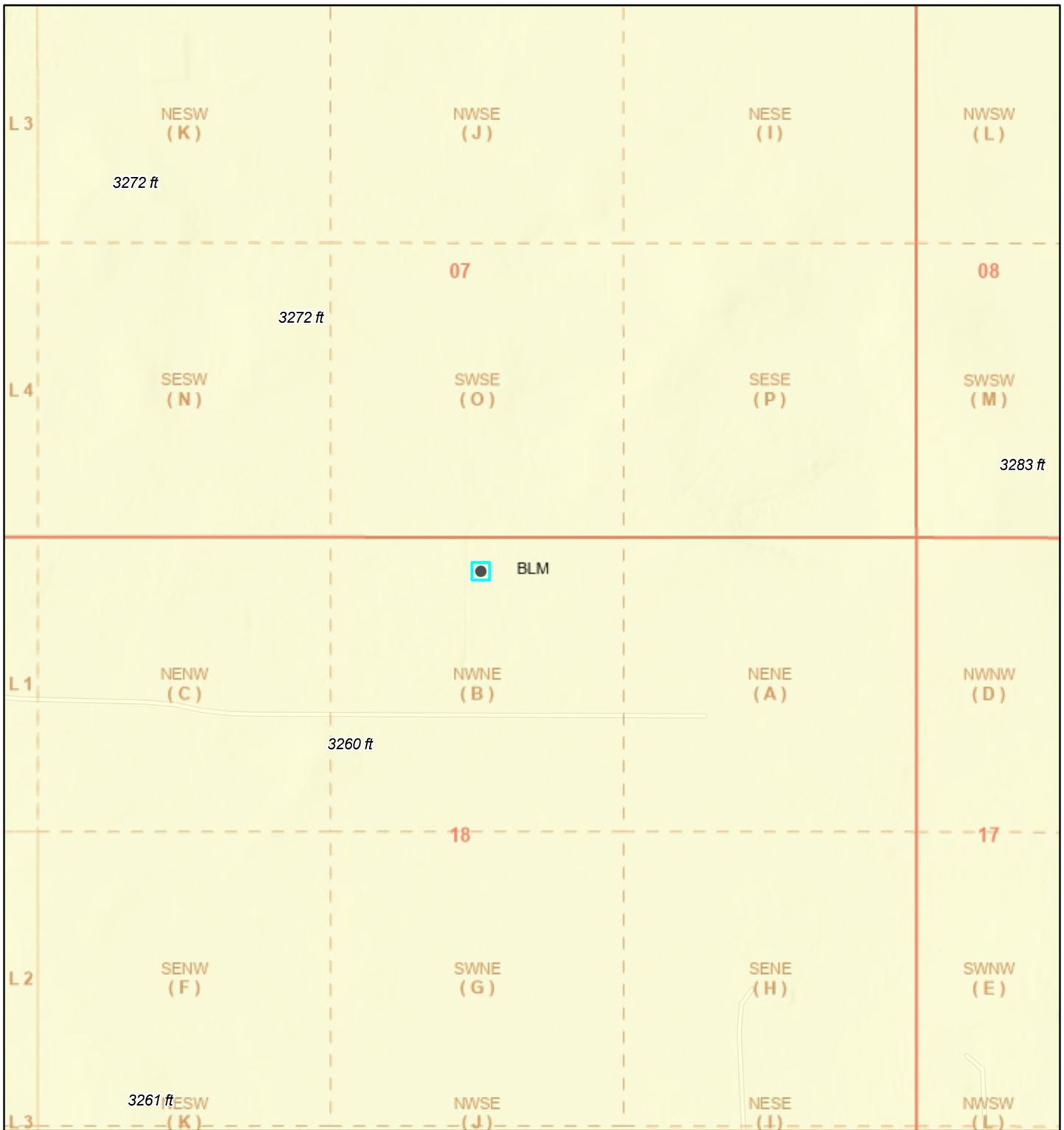
**Wetlands**

- |   |                                |   |                                   |   |          |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland       |  | Lake     |
|  | Estuarine and Marine Wetland   |  | Freshwater Forested/Shrub Wetland |  | Other    |
|   |                                |  | Freshwater Pond                   |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



# Active Mines in New Mexico

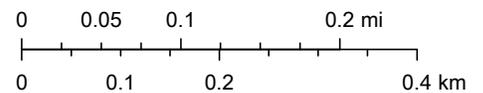


5/16/2023, 10:44:52 AM

1:9,028

### Land Ownership

- BLM
- PLSS Second Division
- PLSS First Division



U.S. BLM, Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

EMNRD MMD GIS Coordinator



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## APPENDIX C

### Photographic Documentation

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View of extent of excavation during remediation activities (March 24, 2023), facing northeast.



View of overspray area prior to remediation activities (March 24, 2023), facing southwest.



View of overspray area prior to remediation activities (March 24, 2023), facing southeast.



View of overspray area prior to remediation activities (March 24, 2023), facing southeast.



View of extent of excavation during remediation activities (April 11, 2023), facing southeast.



View of extent of excavation during remediation activities (April 11, 2023), facing southwest.



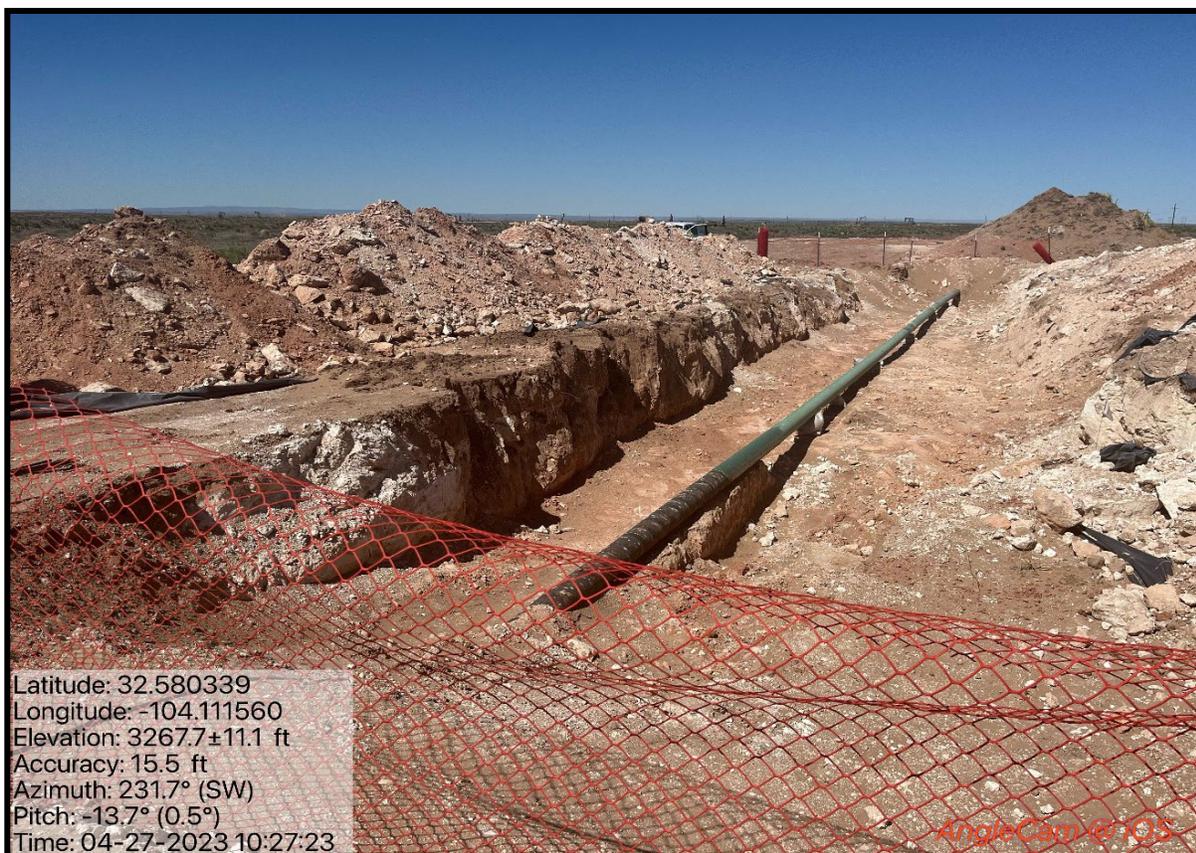
View of overspray area during remediation activities (April 11, 2023), facing southeast.



View of overspray area during remediation activities (April 11, 2023), facing southeast.



View of the final extent of excavation (April 27, 2023), facing southeast.



View of the final extent of excavation (April 27, 2023), facing southwest.



View of the soil stockpiles staged on-Site (April 27, 2023), facing northwest.



View of the soil stockpiles staged on-Site (April 27, 2023), facing southeast.



## APPENDIX D

Table





**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS**

Line B-7  
Enterprise Field Services, LLC  
Eddy County, New Mexico  
Ensolum Project No. 03B1226237

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 Preliminary Floor Sample Analytical Results												
FS-D1	03/24/2023	4	5.50	10.5	3.57	12.7	34.8	702	84.3	30.0 J	816	667
Composite Floor Sample Analytical Results												
FS01	04/11/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
FS02	04/11/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
FS03	04/11/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	288
FS04	04/11/2023	4	<0.050	0.081	<0.050	0.189	<0.300	26.1	<10.0	<10.0	26.1	96.0
FS05	04/11/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
FS06	04/11/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	208
Composite Borehole Sample Analytical Results												
BH01 C	04/11/2023	7	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
BH02 C	04/11/2023	12	<0.050	0.088	0.059	0.232	0.380	<10.0	<10.0	<10.0	<10.0	96.0
BH03 C	04/11/2023	7	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.1	<10.2	<10.0	48.0
Composite Sidewall Sample Analytical Results												
SW01	04/11/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
SW02	04/11/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
SW03	04/11/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	128
SW04	04/11/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
SW05	04/11/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
SW06	04/11/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
Confirmation Overspray Area Sample Analytical Results												
OS01	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
OS02	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
OS03	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
OS04	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
OS05	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
OS06	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
OS07	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
OS08	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
OS09	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
OS10	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
OS11	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
OS12	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
OS13	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
OS14	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
OS15	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
OS16	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
OS17	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
OS18	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
OS19	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
OS20	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
OS21	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
OS22	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
OS23	4/11/2023	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
Confirmation Delineation Soil Sample Analytical Results												
North	4/27/2023	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
East	4/27/2023	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
South	4/27/2023	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
West	4/27/2023	0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
Composite Soil Stockpile Sample Analytical Results												
SP01	4/11/2023	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SP02	4/11/2023	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
SP03	4/11/2023	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SP04	4/11/2023	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
SP05	4/11/2023	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
SP06	4/11/2023	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
SP07	4/11/2023	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0

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

Additional Excavation and/or Re-Sample

bgs - below ground surface

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

RL - Reporting Limit

MDL - Method Detection Limit

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 Data Sheets and Chain-of-Custody Documentation

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kelly Lowery  
 Ensolum  
 601 N. Marienfeld St.  
 Suite 400  
 Midland, Texas 79701  
 Generated 4/4/2023 8:47:19 AM

## JOB DESCRIPTION

Line B-7  
 SDG NUMBER Eddy County, NM

## JOB NUMBER

880-26352-1

Eurofins Midland  
 1211 W. Florida Ave  
 Midland TX 79701



# Eurofins Midland

## Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
4/4/2023 8:47:19 AM

Authorized for release by  
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Client: Ensolum  
Project/Site: Line B-7

Laboratory Job ID: 880-26352-1  
SDG: Eddy County, NM

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

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## Job ID: 880-26352-1

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### Laboratory: Eurofins Midland

#### Narrative

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#### Job Narrative 880-26352-1

#### Receipt

The sample was received on 3/24/2023 4:03 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

#### Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS-01 (880-26352-1).

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49423 and analytical batch 880-49565 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS-01 (880-26352-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49414 and analytical batch 880-49684 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-4318-A-1-E). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



### Client Sample Results

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

**Client Sample ID: FS-01**

**Lab Sample ID: 880-26352-1**

Date Collected: 03/24/23 12:05

Matrix: Solid

Date Received: 03/24/23 16:03

Sample Depth: 4'

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.50		0.0396	0.00762 mg/Kg		03/27/23 13:09	03/28/23 05:44	20
Toluene	10.5		0.398	0.0908 mg/Kg		03/28/23 08:00	03/28/23 14:45	200
Ethylbenzene	3.57		0.398	0.113 mg/Kg		03/28/23 08:00	03/28/23 14:45	200
m-Xylene & p-Xylene	9.28		0.797	0.201 mg/Kg		03/28/23 08:00	03/28/23 14:45	200
o-Xylene	5.98		0.0396	0.00681 mg/Kg		03/27/23 13:09	03/28/23 05:44	20
Xylenes, Total	12.7		0.797	0.201 mg/Kg		03/28/23 08:00	03/28/23 14:45	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	230	S1+	70 - 130	03/27/23 13:09	03/28/23 05:44	20
1,4-Difluorobenzene (Surr)	67	S1-	70 - 130	03/27/23 13:09	03/28/23 05:44	20

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	34.8		0.797	0.201 mg/Kg			03/28/23 10:05	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	816		50.0	15.0 mg/Kg			04/03/23 16:35	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	702	*+	50.0	15.0 mg/Kg		03/28/23 10:11	03/29/23 02:44	1
Diesel Range Organics (Over C10-C28)	84.3	*+	50.0	15.0 mg/Kg		03/28/23 10:11	03/29/23 02:44	1
Oil Range Organics (Over C28-C36)	30.0	J	50.0	15.0 mg/Kg		03/28/23 10:11	03/29/23 02:44	1
Total TPH	816		50.0	15.0 mg/Kg		03/28/23 10:11	03/29/23 02:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	03/28/23 10:11	03/29/23 02:44	1
o-Terphenyl	118		70 - 130	03/28/23 10:11	03/29/23 02:44	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	667		49.9	3.94 mg/Kg			03/28/23 17:36	10

## Surrogate Summary

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
880-26352-1	FS-01	230 S1+	67 S1-
LCS 880-49414/1-A	Lab Control Sample	84	119
LCS 880-49423/1-A	Lab Control Sample	112	92
LCSD 880-49414/2-A	Lab Control Sample Dup	104	112
LCSD 880-49423/2-A	Lab Control Sample Dup	119	95
MB 880-49395/5-A	Method Blank	98	80
MB 880-49414/5-A	Method Blank	72	97
MB 880-49423/5-A	Method Blank	106	81

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
880-26352-1	FS-01	97	118
LCS 880-49712/2-A	Lab Control Sample	139 S1+	165 S1+
LCSD 880-49712/3-A	Lab Control Sample Dup	127	149 S1+
MB 880-49712/1-A	Method Blank	124	153 S1+

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

### QC Sample Results

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49395/5-A  
Matrix: Solid  
Analysis Batch: 49565

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 49395

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385 mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Toluene	<0.000456	U	0.00200	0.000456 mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Ethylbenzene	<0.000565	U	0.00200	0.000565 mg/Kg		03/24/23 10:32	03/27/23 11:05	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101 mg/Kg		03/24/23 10:32	03/27/23 11:05	1
o-Xylene	<0.000344	U	0.00200	0.000344 mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Xylenes, Total	<0.00101	U	0.00400	0.00101 mg/Kg		03/24/23 10:32	03/27/23 11:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	03/24/23 10:32	03/27/23 11:05	1
1,4-Difluorobenzene (Surr)	80		70 - 130	03/24/23 10:32	03/27/23 11:05	1

Lab Sample ID: MB 880-49414/5-A  
Matrix: Solid  
Analysis Batch: 49684

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 49414

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385 mg/Kg		03/24/23 12:44	03/28/23 11:19	1
Toluene	<0.000456	U	0.00200	0.000456 mg/Kg		03/24/23 12:44	03/28/23 11:19	1
Ethylbenzene	<0.000565	U	0.00200	0.000565 mg/Kg		03/24/23 12:44	03/28/23 11:19	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101 mg/Kg		03/24/23 12:44	03/28/23 11:19	1
o-Xylene	<0.000344	U	0.00200	0.000344 mg/Kg		03/24/23 12:44	03/28/23 11:19	1
Xylenes, Total	<0.00101	U	0.00400	0.00101 mg/Kg		03/24/23 12:44	03/28/23 11:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	03/24/23 12:44	03/28/23 11:19	1
1,4-Difluorobenzene (Surr)	97		70 - 130	03/24/23 12:44	03/28/23 11:19	1

Lab Sample ID: LCS 880-49414/1-A  
Matrix: Solid  
Analysis Batch: 49684

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 49414

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1197		mg/Kg		120	70 - 130
Toluene	0.100	0.09552		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.08488		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1702		mg/Kg		85	70 - 130
o-Xylene	0.100	0.08508		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130
1,4-Difluorobenzene (Surr)	119		70 - 130

Lab Sample ID: LCSD 880-49414/2-A  
Matrix: Solid  
Analysis Batch: 49684

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 49414

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1164		mg/Kg		116	70 - 130	3	35

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### QC Sample Results

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-49414/2-A  
Matrix: Solid  
Analysis Batch: 49684

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 49414

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1045		mg/Kg		104	70 - 130	9	35
Ethylbenzene	0.100	0.09983		mg/Kg		100	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.2101		mg/Kg		105	70 - 130	21	35
o-Xylene	0.100	0.1053		mg/Kg		105	70 - 130	21	35

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: MB 880-49423/5-A  
Matrix: Solid  
Analysis Batch: 49565

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 49423

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385 mg/Kg		03/24/23 13:09	03/27/23 21:49	1
Toluene	<0.000456	U	0.00200	0.000456 mg/Kg		03/24/23 13:09	03/27/23 21:49	1
Ethylbenzene	<0.000565	U	0.00200	0.000565 mg/Kg		03/24/23 13:09	03/27/23 21:49	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101 mg/Kg		03/24/23 13:09	03/27/23 21:49	1
o-Xylene	<0.000344	U	0.00200	0.000344 mg/Kg		03/24/23 13:09	03/27/23 21:49	1
Xylenes, Total	<0.00101	U	0.00400	0.00101 mg/Kg		03/24/23 13:09	03/27/23 21:49	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/24/23 13:09	03/27/23 21:49	1
1,4-Difluorobenzene (Surr)	81		70 - 130	03/24/23 13:09	03/27/23 21:49	1

Lab Sample ID: LCS 880-49423/1-A  
Matrix: Solid  
Analysis Batch: 49565

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 49423

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07371		mg/Kg		74	70 - 130
Toluene	0.100	0.08072		mg/Kg		81	70 - 130
Ethylbenzene	0.100	0.08323		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	0.200	0.1753		mg/Kg		88	70 - 130
o-Xylene	0.100	0.09022		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-49423/2-A  
Matrix: Solid  
Analysis Batch: 49565

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 49423

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07731		mg/Kg		77	70 - 130	5	35
Toluene	0.100	0.08578		mg/Kg		86	70 - 130	6	35
Ethylbenzene	0.100	0.08681		mg/Kg		87	70 - 130	4	35

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### QC Sample Results

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-49423/2-A  
Matrix: Solid  
Analysis Batch: 49565

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 49423

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	0.200	0.1855		mg/Kg		93	70 - 130	6	35
o-Xylene	0.100	0.09680		mg/Kg		97	70 - 130	7	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	119		70 - 130						
1,4-Difluorobenzene (Surr)	95		70 - 130						

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-49712/1-A  
Matrix: Solid  
Analysis Batch: 49689

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 49712

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0 mg/Kg		03/28/23 10:11	03/28/23 21:43	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0 mg/Kg		03/28/23 10:11	03/28/23 21:43	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0 mg/Kg		03/28/23 10:11	03/28/23 21:43	1
Total TPH	<15.0	U	50.0	15.0 mg/Kg		03/28/23 10:11	03/28/23 21:43	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	124		70 - 130	03/28/23 10:11	03/28/23 21:43	1		
o-Terphenyl	153	S1+	70 - 130	03/28/23 10:11	03/28/23 21:43	1		

Lab Sample ID: LCS 880-49712/2-A  
Matrix: Solid  
Analysis Batch: 49689

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 49712

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1940	*+	mg/Kg		194	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	2086	*+	mg/Kg		209	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	139	S1+	70 - 130						
o-Terphenyl	165	S1+	70 - 130						

Lab Sample ID: LCSD 880-49712/3-A  
Matrix: Solid  
Analysis Batch: 49689

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 49712

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1829	*+	mg/Kg		183	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	1842	*+	mg/Kg		184	70 - 130	12	20

Eurofins Midland

### QC Sample Results

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-49712/3-A  
Matrix: Solid  
Analysis Batch: 49689

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 49712

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	127		70 - 130
o-Terphenyl	149	S1+	70 - 130

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49714/1-A  
Matrix: Solid  
Analysis Batch: 49825

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<0.395	U	5.00	0.395 mg/Kg			03/28/23 15:33	1

Lab Sample ID: LCS 880-49714/2-A  
Matrix: Solid  
Analysis Batch: 49825

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

Lab Sample ID: LCSD 880-49714/3-A  
Matrix: Solid  
Analysis Batch: 49825

Client Sample ID: Lab Control Sample Dup  
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit

## QC Association Summary

Client: Ensolum  
Project/Site: Line B-7Job ID: 880-26352-1  
SDG: Eddy County, NM

## GC VOA

## Prep Batch: 49395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-49395/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 49414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	5035	
MB 880-49414/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49414/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49414/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Prep Batch: 49423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	5035	
MB 880-49423/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49423/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49423/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 49565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	8021B	49423
MB 880-49395/5-A	Method Blank	Total/NA	Solid	8021B	49395
MB 880-49423/5-A	Method Blank	Total/NA	Solid	8021B	49423
LCS 880-49423/1-A	Lab Control Sample	Total/NA	Solid	8021B	49423
LCSD 880-49423/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49423

## Analysis Batch: 49684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	8021B	49414
MB 880-49414/5-A	Method Blank	Total/NA	Solid	8021B	49414
LCS 880-49414/1-A	Lab Control Sample	Total/NA	Solid	8021B	49414
LCSD 880-49414/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49414

## Analysis Batch: 49709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 49689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	8015B NM	49712
MB 880-49712/1-A	Method Blank	Total/NA	Solid	8015B NM	49712
LCS 880-49712/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49712
LCSD 880-49712/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49712

## Prep Batch: 49712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	8015NM Prep	
MB 880-49712/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49712/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49712/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Eurofins Midland

### QC Association Summary

Client: Ensolum  
 Project/Site: Line B-7

Job ID: 880-26352-1  
 SDG: Eddy County, NM

#### GC Semi VOA

##### Analysis Batch: 50257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Total/NA	Solid	8015 NM	

#### HPLC/IC

##### Leach Batch: 49714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Soluble	Solid	DI Leach	
MB 880-49714/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49714/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49714/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

##### Analysis Batch: 49825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26352-1	FS-01	Soluble	Solid	300.0	49714
MB 880-49714/1-A	Method Blank	Soluble	Solid	300.0	49714
LCS 880-49714/2-A	Lab Control Sample	Soluble	Solid	300.0	49714
LCSD 880-49714/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49714

# Lab Chronicle

Client: Ensolum  
 Project/Site: Line B-7

Job ID: 880-26352-1  
 SDG: Eddy County, NM

**Client Sample ID: FS-01**  
**Date Collected: 03/24/23 12:05**  
**Date Received: 03/24/23 16:03**

**Lab Sample ID: 880-26352-1**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			49423	MNR	EET MID	03/27/23 13:09
Total/NA	Analysis	8021B		20	49565	MNR	EET MID	03/28/23 05:44
Total/NA	Prep	5035			49414	MNR	EET MID	03/28/23 08:00
Total/NA	Analysis	8021B		200	49684	MNR	EET MID	03/28/23 14:45
Total/NA	Analysis	Total BTEX		1	49709	SM	EET MID	03/28/23 10:05
Total/NA	Analysis	8015 NM		1	50257	AJ	EET MID	04/03/23 16:35
Total/NA	Prep	8015NM Prep			49712	AM	EET MID	03/28/23 10:11
Total/NA	Analysis	8015B NM		1	49689	SM	EET MID	03/29/23 02:44
Soluble	Leach	DI Leach			49714	KS	EET MID	03/28/23 10:15
Soluble	Analysis	300.0		10	49825	SMC	EET MID	03/28/23 17:36

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

## Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

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# Method Summary

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



# Sample Summary

Client: Ensolum  
Project/Site: Line B-7

Job ID: 880-26352-1  
SDG: Eddy County, NM

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-26352-1	FS-01	Solid	03/24/23 12:05	03/24/23 16:03	4'

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### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-26352-1  
SDG Number: Eddy County, NM

**Login Number: 26352**  
**List Number: 1**  
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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

April 17, 2023

KELLY LOWERY

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: LINE B - 7

Enclosed are the results of analyses for samples received by the laboratory on 04/12/23 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220

Project: LINE B - 7  
Project Number: 03B1226237  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
17-Apr-23 10:52

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 01 @ 4'	H231723-01	Soil	11-Apr-23 09:00	12-Apr-23 14:15
FS 02 @ 4'	H231723-02	Soil	11-Apr-23 09:05	12-Apr-23 14:15
FS 03 @ 4'	H231723-03	Soil	11-Apr-23 09:10	12-Apr-23 14:15
FS 04 @ 4'	H231723-04	Soil	11-Apr-23 09:15	12-Apr-23 14:15
FS 05 @ 4'	H231723-05	Soil	11-Apr-23 09:20	12-Apr-23 14:15
FS 06 @ 4'	H231723-06	Soil	11-Apr-23 09:25	12-Apr-23 14:15
SW 01 @ 0-4'	H231723-07	Soil	11-Apr-23 09:30	12-Apr-23 14:15
SW 02 @ 0-4'	H231723-08	Soil	11-Apr-23 09:35	12-Apr-23 14:15
SW 03 @ 0-4'	H231723-09	Soil	11-Apr-23 09:40	12-Apr-23 14:15
SW 04 @ 0-4'	H231723-10	Soil	11-Apr-23 09:45	12-Apr-23 14:15
SW 05 @ 0-4'	H231723-11	Soil	11-Apr-23 09:50	12-Apr-23 14:15
SW 06 @ 0-4'	H231723-12	Soil	11-Apr-23 09:55	12-Apr-23 14:15
BH 01 C @ 7'	H231723-13	Soil	11-Apr-23 11:15	12-Apr-23 14:15
BH 02 C @ 12'	H231723-14	Soil	11-Apr-23 11:30	12-Apr-23 14:15
BH 03 C @ 7'	H231723-15	Soil	11-Apr-23 11:40	12-Apr-23 14:15
SP 01	H231723-16	Soil	11-Apr-23 13:35	12-Apr-23 14:15
SP 02	H231723-17	Soil	11-Apr-23 13:40	12-Apr-23 14:15
SP 03	H231723-18	Soil	11-Apr-23 13:45	12-Apr-23 14:15
SP 04	H231723-19	Soil	11-Apr-23 13:50	12-Apr-23 14:15
SP 05	H231723-20	Soil	11-Apr-23 13:55	12-Apr-23 14:15
SP 06	H231723-21	Soil	11-Apr-23 14:00	12-Apr-23 14:15
SP 07	H231723-22	Soil	11-Apr-23 14:05	12-Apr-23 14:15
OS01 @ 0.5'	H231723-23	Soil	11-Apr-23 14:10	12-Apr-23 14:15
OS02 @ 0.5'	H231723-24	Soil	11-Apr-23 14:15	12-Apr-23 14:15
OS03 @ 0.5'	H231723-25	Soil	11-Apr-23 14:20	12-Apr-23 14:15
OS04 @ 0.5'	H231723-26	Soil	11-Apr-23 14:25	12-Apr-23 14:15
OS05 @ 0.5'	H231723-27	Soil	11-Apr-23 14:30	12-Apr-23 14:15

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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OS06 @ 0.5'	H231723-28	Soil	11-Apr-23 14:35	12-Apr-23 14:15
OS07 @ 0.5'	H231723-29	Soil	11-Apr-23 14:40	12-Apr-23 14:15
OS08 @ 0.5'	H231723-30	Soil	11-Apr-23 14:45	12-Apr-23 14:15
OS09 @ 0.5'	H231723-31	Soil	11-Apr-23 14:50	12-Apr-23 14:15
OS10 @ 0.5'	H231723-32	Soil	11-Apr-23 14:55	12-Apr-23 14:15
OS11 @ 0.5'	H231723-33	Soil	11-Apr-23 15:00	12-Apr-23 14:15
OS12 @ 0.5'	H231723-34	Soil	11-Apr-23 15:05	12-Apr-23 14:15
OS13 @ 0.5'	H231723-35	Soil	11-Apr-23 15:10	12-Apr-23 14:15
OS14 @ 0.5'	H231723-36	Soil	11-Apr-23 15:15	12-Apr-23 14:15
OS15 @ 0.5'	H231723-37	Soil	11-Apr-23 15:20	12-Apr-23 14:15
OS16 @ 0.5'	H231723-38	Soil	11-Apr-23 15:25	12-Apr-23 14:15
OS17 @ 0.5'	H231723-39	Soil	11-Apr-23 15:30	12-Apr-23 14:15
OS18 @ 0.5'	H231723-40	Soil	11-Apr-23 15:35	12-Apr-23 14:15
OS19 @ 0.5'	H231723-41	Soil	11-Apr-23 15:45	12-Apr-23 14:15
OS20 @ 0.5'	H231723-42	Soil	11-Apr-23 15:50	12-Apr-23 14:15
OS21 @ 0.5'	H231723-43	Soil	11-Apr-23 15:55	12-Apr-23 14:15
OS22 @ 0.5'	H231723-44	Soil	11-Apr-23 16:00	12-Apr-23 14:15
OS23 @ 0.5'	H231723-45	Soil	11-Apr-23 16:05	12-Apr-23 14:15

04/17/23 - Client clarified that the 05 samples should be OS instead. This is the revised report and will replace the one sent earlier today 04/17/23.

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**FS 01 @ 4'**  
**H231723-01 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

Surrogate: 1-Chlorooctane			86.8 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			114 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**FS 02 @ 4'**  
**H231723-02 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			91.3 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			118 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**FS 03 @ 4'**  
**H231723-03 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>288</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.8 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			117 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**FS 04 @ 4'**  
**H231723-04 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>96.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
<b>Toluene*</b>	<b>0.081</b>		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
<b>Total Xylenes*</b>	<b>0.189</b>		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

<b>GRO C6-C10*</b>	<b>26.1</b>		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.6 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			114 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**FS 05 @ 4'**  
**H231723-05 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.8 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			115 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**FS 06 @ 4'**  
**H231723-06 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			85.4 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			108 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SW 01 @ 0-4'**

**H231723-07 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %		71.5-134	3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			75.5 %		48.2-134	3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			96.2 %		49.1-148	3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SW 02 @ 0-4'**

**H231723-08 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.0 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			109 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SW 03 @ 0-4'**

**H231723-09 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>128</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.1 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			113 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SW 04 @ 0-4'**  
**H231723-10 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			82.3 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SW 05 @ 0-4'**

**H231723-11 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.3 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			109 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SW 06 @ 0-4'**  
**H231723-12 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.1 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			108 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**BH 01 C @ 7'  
H231723-13 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			91.5 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			118 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**BH 02 C @ 12'  
H231723-14 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>96.0</b>		16.0	mg/kg	4	3041422	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
<b>Toluene*</b>	<b>0.088</b>		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
<b>Ethylbenzene*</b>	<b>0.059</b>		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
<b>Total Xylenes*</b>	<b>0.232</b>		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
<b>Total BTEX</b>	<b>0.380</b>		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.9 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			115 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**BH 03 C @ 7'  
H231723-15 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.4 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			110 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SP 01  
H231723-16 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.9 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			117 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SP 02  
H231723-17 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.1 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			109 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SP 03  
H231723-18 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.7 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			111 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SP 04  
H231723-19 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.8 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			115 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SP 05  
H231723-20 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041336	JH	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041336	JH	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		3041336	JH	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041348	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.2 %	48.2-134		3041348	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			112 %	49.1-148		3041348	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SP 06  
H231723-21 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.6 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			93.1 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**SP 07  
H231723-22 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.7 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			92.6 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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\*=Accredited Analyte

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS01 @ 0.5'  
H231723-23 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.8 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			91.7 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			102 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS02 @ 0.5'  
H231723-24 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.3 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			99.1 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS03 @ 0.5'  
H231723-25 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.7 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.7 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			101 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS04 @ 0.5'  
H231723-26 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.7 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			101 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS05 @ 0.5'  
H231723-27 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			100 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.3 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			98.3 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS06 @ 0.5'  
H231723-28 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.9 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			96.6 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS07 @ 0.5'  
H231723-29 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.9 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			103 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS08 @ 0.5'  
H231723-30 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			85.0 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			95.1 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS09 @ 0.5'  
H231723-31 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			91.2 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			100 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS10 @ 0.5'  
H231723-32 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.2 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			99.3 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS11 @ 0.5'  
H231723-33 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			94.6 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS12 @ 0.5'  
H231723-34 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3041423	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.9 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			103 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS13 @ 0.5'  
H231723-35 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

Surrogate: 1-Chlorooctane			94.0 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			106 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS14 @ 0.5'  
H231723-36 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

Surrogate: 1-Chlorooctane			89.9 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			99.2 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS15 @ 0.5'  
H231723-37 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

Surrogate: 1-Chlorooctane			87.0 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			94.8 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS16 @ 0.5'  
H231723-38 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			85.0 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			95.6 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS17 @ 0.5'  
H231723-39 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %		71.5-134	3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

Surrogate: 1-Chlorooctane			84.8 %		48.2-134	3041349	MS	14-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			93.2 %		49.1-148	3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS18 @ 0.5'  
H231723-40 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041337	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041337	JH/	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %	71.5-134		3041337	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041349	MS	14-Apr-23	8015B	

Surrogate: 1-Chlorooctane			90.3 %	48.2-134		3041349	MS	14-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			106 %	49.1-148		3041349	MS	14-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS19 @ 0.5'  
H231723-41 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041338	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	71.5-134		3041338	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.2 %	48.2-134		3041350	MS	15-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			98.7 %	49.1-148		3041350	MS	15-Apr-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS20 @ 0.5'  
H231723-42 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>16.0</b>		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041338	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.9 %		71.5-134	3041338	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			92.4 %		48.2-134	3041350	MS	15-Apr-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %		49.1-148	3041350	MS	15-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS21 @ 0.5'  
H231723-43 (Soil)**

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

**Inorganic Compounds**

<b>Chloride</b>	<b>16.0</b>		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041338	JH/	14-Apr-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.2 %			71.5-134	3041338	JH/	14-Apr-23	8021B
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			93.3 %			48.2-134	3041350	MS	15-Apr-23	8015B
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %			49.1-148	3041350	MS	15-Apr-23	8015B
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS22 @ 0.5'  
H231723-44 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041338	JH/	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %		71.5-134	3041338	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	

Surrogate: 1-Chlorooctane			92.6 %		48.2-134	3041350	MS	15-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			105 %		49.1-148	3041350	MS	15-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**OS23 @ 0.5'  
H231723-45 (Soil)**

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

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3041424	GM	14-Apr-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3041338	JH/	14-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3041338	JH/	14-Apr-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %		71.5-134	3041338	JH/	14-Apr-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3041350	MS	15-Apr-23	8015B	

Surrogate: 1-Chlorooctane			87.6 %		48.2-134	3041350	MS	15-Apr-23	8015B	
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Surrogate: 1-Chlorooctadecane			97.7 %		49.1-148	3041350	MS	15-Apr-23	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**Inorganic Compounds - Quality Control**  
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041422 - 1:4 DI Water**

<b>Blank (3041422-BLK1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	ND	16.0	mg/kg							
<b>LCS (3041422-BS1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (3041422-BSD1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	

**Batch 3041423 - 1:4 DI Water**

<b>Blank (3041423-BLK1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	ND	16.0	mg/kg							
<b>LCS (3041423-BS1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (3041423-BSD1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	400	16.0	mg/kg	400		100	80-120	3.92	20	

**Batch 3041424 - 1:4 DI Water**

<b>Blank (3041424-BLK1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	ND	16.0	mg/kg							
<b>LCS (3041424-BS1)</b>				Prepared & Analyzed: 14-Apr-23						
Chloride	432	16.0	mg/kg	400		108	80-120			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041424 - 1:4 DI Water**

**LCS Dup (3041424-BSD1)**

Prepared & Analyzed: 14-Apr-23

Chloride	448	16.0	mg/kg	400		112	80-120	3.64	20	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041336 - Volatiles**

**Blank (3041336-BLK1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

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)	0.0526		mg/kg	0.0500		105	71.5-134			

**LCS (3041336-BS1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

Benzene	1.87	0.050	mg/kg	2.00		93.5	81.4-118			
Toluene	2.03	0.050	mg/kg	2.00		102	88.7-121			
Ethylbenzene	2.12	0.050	mg/kg	2.00		106	86.1-120			
m,p-Xylene	4.39	0.100	mg/kg	4.00		110	88.2-124			
o-Xylene	2.13	0.050	mg/kg	2.00		107	84.9-118			
Total Xylenes	6.52	0.150	mg/kg	6.00		109	87.3-122			
Surrogate: 4-Bromofluorobenzene (PID)	0.0506		mg/kg	0.0500		101	71.5-134			

**LCS Dup (3041336-BSD1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

Benzene	1.89	0.050	mg/kg	2.00		94.5	81.4-118	1.13	15.8	
Toluene	2.05	0.050	mg/kg	2.00		102	88.7-121	0.716	15.9	
Ethylbenzene	2.15	0.050	mg/kg	2.00		107	86.1-120	1.26	16	
m,p-Xylene	4.41	0.100	mg/kg	4.00		110	88.2-124	0.459	16.2	
o-Xylene	2.14	0.050	mg/kg	2.00		107	84.9-118	0.384	16.7	
Total Xylenes	6.55	0.150	mg/kg	6.00		109	87.3-122	0.434	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0506		mg/kg	0.0500		101	71.5-134			

**Batch 3041337 - Volatiles**

**Blank (3041337-BLK1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

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  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220

Project: LINE B - 7  
Project Number: 03B1226237  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
17-Apr-23 10:52

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041337 - Volatiles****Blank (3041337-BLK1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0510		mg/kg	0.0500		102	71.5-134			

**LCS (3041337-BS1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

Benzene	1.84	0.050	mg/kg	2.00		92.0	81.4-118			
Toluene	1.99	0.050	mg/kg	2.00		99.7	88.7-121			
Ethylbenzene	2.07	0.050	mg/kg	2.00		104	86.1-120			
m,p-Xylene	4.24	0.100	mg/kg	4.00		106	88.2-124			
o-Xylene	2.00	0.050	mg/kg	2.00		100	84.9-118			
Total Xylenes	6.24	0.150	mg/kg	6.00		104	87.3-122			
Surrogate: 4-Bromofluorobenzene (PID)	0.0491		mg/kg	0.0500		98.3	71.5-134			

**LCS Dup (3041337-BSD1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

Benzene	1.79	0.050	mg/kg	2.00		89.6	81.4-118	2.61	15.8	
Toluene	1.96	0.050	mg/kg	2.00		98.1	88.7-121	1.54	15.9	
Ethylbenzene	2.05	0.050	mg/kg	2.00		102	86.1-120	1.21	16	
m,p-Xylene	4.15	0.100	mg/kg	4.00		104	88.2-124	2.17	16.2	
o-Xylene	1.97	0.050	mg/kg	2.00		98.4	84.9-118	1.67	16.7	
Total Xylenes	6.12	0.150	mg/kg	6.00		102	87.3-122	2.01	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0481		mg/kg	0.0500		96.2	71.5-134			

**Batch 3041338 - Volatiles****Blank (3041338-BLK1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

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)	0.0518		mg/kg	0.0500		104	71.5-134			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041338 - Volatiles**

**LCS (3041338-BS1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

Benzene	1.97	0.050	mg/kg	2.00		98.4	81.4-118			
Toluene	2.15	0.050	mg/kg	2.00		107	88.7-121			
Ethylbenzene	2.20	0.050	mg/kg	2.00		110	86.1-120			
m,p-Xylene	4.64	0.100	mg/kg	4.00		116	88.2-124			
o-Xylene	2.26	0.050	mg/kg	2.00		113	84.9-118			
Total Xylenes	6.90	0.150	mg/kg	6.00		115	87.3-122			

Surrogate: 4-Bromofluorobenzene (PID)

0.0515 mg/kg 0.0500 103 71.5-134

**LCS Dup (3041338-BSD1)**

Prepared: 13-Apr-23 Analyzed: 14-Apr-23

Benzene	1.93	0.050	mg/kg	2.00		96.6	81.4-118	1.78	15.8	
Toluene	2.13	0.050	mg/kg	2.00		106	88.7-121	0.897	15.9	
Ethylbenzene	2.15	0.050	mg/kg	2.00		107	86.1-120	2.44	16	
m,p-Xylene	4.55	0.100	mg/kg	4.00		114	88.2-124	2.13	16.2	
o-Xylene	2.19	0.050	mg/kg	2.00		109	84.9-118	3.09	16.7	
Total Xylenes	6.73	0.150	mg/kg	6.00		112	87.3-122	2.44	16.3	

Surrogate: 4-Bromofluorobenzene (PID)

0.0510 mg/kg 0.0500 102 71.5-134

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041348 - General Prep - Organics**

<b>Blank (3041348-BLK1)</b>		Prepared: 13-Apr-23 Analyzed: 14-Apr-23								
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	44.8		mg/kg	49.6		90.4	48.2-134			
Surrogate: 1-Chlorooctadecane	61.3		mg/kg	50.0		123	49.1-148			

<b>LCS (3041348-BS1)</b>		Prepared: 13-Apr-23 Analyzed: 14-Apr-23								
GRO C6-C10	167	10.0	mg/kg	200		83.5	78.5-124			
DRO >C10-C28	195	10.0	mg/kg	200		97.6	72.5-126			
Total TPH C6-C28	362	10.0	mg/kg	400		90.6	77.6-123			
Surrogate: 1-Chlorooctane	50.0		mg/kg	49.6		101	48.2-134			
Surrogate: 1-Chlorooctadecane	63.4		mg/kg	50.0		127	49.1-148			

<b>LCS Dup (3041348-BS1)</b>		Prepared: 13-Apr-23 Analyzed: 14-Apr-23								
GRO C6-C10	162	10.0	mg/kg	200		81.1	78.5-124	2.86	17.7	
DRO >C10-C28	192	10.0	mg/kg	200		96.0	72.5-126	1.74	21	
Total TPH C6-C28	354	10.0	mg/kg	400		88.6	77.6-123	2.25	18.5	
Surrogate: 1-Chlorooctane	48.9		mg/kg	49.6		98.7	48.2-134			
Surrogate: 1-Chlorooctadecane	62.1		mg/kg	50.0		124	49.1-148			

**Batch 3041349 - General Prep - Organics**

<b>Blank (3041349-BLK1)</b>		Prepared: 13-Apr-23 Analyzed: 14-Apr-23								
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	44.3		mg/kg	49.6		89.4	48.2-134			
Surrogate: 1-Chlorooctadecane	51.8		mg/kg	50.0		104	49.1-148			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041349 - General Prep - Organics**

LCS (3041349-BS1)		Prepared: 13-Apr-23 Analyzed: 14-Apr-23								
GRO C6-C10	192	10.0	mg/kg	200		96.0	78.5-124			
DRO >C10-C28	206	10.0	mg/kg	200		103	72.5-126			
Total TPH C6-C28	398	10.0	mg/kg	400		99.5	77.6-123			
Surrogate: 1-Chlorooctane	50.3		mg/kg	49.6		101	48.2-134			
Surrogate: 1-Chlorooctadecane	62.3		mg/kg	50.0		125	49.1-148			

LCS Dup (3041349-BSD1)		Prepared: 13-Apr-23 Analyzed: 14-Apr-23								
GRO C6-C10	192	10.0	mg/kg	200		95.8	78.5-124	0.223	17.7	
DRO >C10-C28	213	10.0	mg/kg	200		106	72.5-126	3.16	21	
Total TPH C6-C28	404	10.0	mg/kg	400		101	77.6-123	1.54	18.5	
Surrogate: 1-Chlorooctane	49.8		mg/kg	49.6		101	48.2-134			
Surrogate: 1-Chlorooctadecane	55.9		mg/kg	50.0		112	49.1-148			

**Batch 3041350 - General Prep - Organics**

Blank (3041350-BLK1)		Prepared: 13-Apr-23 Analyzed: 15-Apr-23								
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	46.8		mg/kg	49.6		94.4	48.2-134			
Surrogate: 1-Chlorooctadecane	56.1		mg/kg	50.0		112	49.1-148			

LCS (3041350-BS1)		Prepared: 13-Apr-23 Analyzed: 15-Apr-23								
GRO C6-C10	170	10.0	mg/kg	200		84.9	78.5-124			
DRO >C10-C28	180	10.0	mg/kg	200		90.0	72.5-126			
Total TPH C6-C28	350	10.0	mg/kg	400		87.5	77.6-123			
Surrogate: 1-Chlorooctane	51.2		mg/kg	49.6		103	48.2-134			
Surrogate: 1-Chlorooctadecane	63.0		mg/kg	50.0		126	49.1-148			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: LINE B - 7 Project Number: 03B1226237 Project Manager: KELLY LOWERY Fax To:	Reported: 17-Apr-23 10:52
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3041350 - General Prep - Organics**

**LCS Dup (3041350-BSD1)**

Prepared: 13-Apr-23 Analyzed: 15-Apr-23

GRO C6-C10	176	10.0	mg/kg	200		87.9	78.5-124	3.47	17.7	
DRO >C10-C28	183	10.0	mg/kg	200		91.7	72.5-126	1.86	21	
Total TPH C6-C28	359	10.0	mg/kg	400		89.8	77.6-123	2.64	18.5	
Surrogate: 1-Chlorooctane	51.6		mg/kg	49.6		104	48.2-134			
Surrogate: 1-Chlorooctadecane	63.5		mg/kg	50.0		127	49.1-148			

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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Enterprise, LLC  
 Project Manager: Nelly Currie  
 Address: 6122 W 41 Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 214-733-8165 Fax #: \_\_\_\_\_  
 Project #: D8B1226237 Project Owner: Enterprise  
 Project Name: Line B-7  
 Project Location: 32.580324, -104.11217  
 Sampler Name: J. Palomares

P.O. #: A.A.  
 Company: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_  
 State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB, OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
<u>H231723</u>	<u>FS01 @4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>4/11/23</u>	<u>0900</u>	<u>BTEX</u>
	<u>FS02 @4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0905</u>	<u>0910</u>	<u>TPH</u>
	<u>FS03 @4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0915</u>	<u>0920</u>	<u>chlorides</u>
	<u>FS04 @4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0920</u>	<u>0925</u>	
	<u>FS05 @4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0925</u>	<u>0930</u>	
	<u>FS06 @4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0930</u>	<u>0935</u>	
	<u>SU01 @0-4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0935</u>	<u>0940</u>	
	<u>SU02 @0-4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0940</u>	<u>0945</u>	
	<u>SU03 @0-4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0945</u>		
	<u>SU04 @0-4'</u>	<input checked="" type="checkbox"/>	<u>1</u>			<input checked="" type="checkbox"/>				<u>0945</u>		

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Relinquished By: \_\_\_\_\_ Date: 4/11/23  
 Relinquished By: \_\_\_\_\_ Date: 4/11/23  
 Received By: Spodrigues  
 Received By: \_\_\_\_\_  
 Verbal Result:  Yes  No  Add'l Phone #: \_\_\_\_\_  
 All Results are emailed. Please provide Email address: \_\_\_\_\_  
 REMARKS: Enterprise, LLC

Delivered By: (Circle One)  UPS  Bus  Other: \_\_\_\_\_  
 Observed Temp. °C: 3.2°C Sample Condition:  Cool  Intact  Yes  No  
 Corrected Temp. °C: 2.6°C Checked By: SK  
 Turnaround Time:  Standard  Rush  
 Thermometer ID #113 8duy57BT Bacteria (only)  Yes  No  
 Correction Factor -0.6°C  Yes  No  
 Observed Temp. °C: \_\_\_\_\_  
 Corrected Temp. °C: \_\_\_\_\_

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



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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: URSOLUN, LLC  
 Project Manager: Kelly Lowery  
 Address: 6122 N. Park Hwy  
 City: Las Vegas State: NM Zip: 88220  
 Phone #: 214-733-8165 Fax #:  
 Project #: 08B1226237 Project Owner: Enterprise  
 Project Name: Line B-7  
 Project Location: 82.58 0324 -104.11217  
 Sampler Name: J. Palomata

P.O. #: A.A.  
 Company:  
 Attn:  
 Address:  
 City:  
 State: Zip:  
 Phone #:  
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
<u>H23123</u>	<u>SU05 @ 0-4'</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>4/11/18</u>	<u>0950</u>	<u>BTEX</u>
	<u>SU06 @ 0-4'</u>	<u>C</u>	<u>1</u>								<u>0955</u>	<u>TPH</u>
	<u>BH01 @ 7'</u>	<u>C</u>	<u>1</u>								<u>1115</u>	<u>Chlorides</u>
	<u>BH02 @ 7'</u>	<u>C</u>	<u>1</u>								<u>1130</u>	
	<u>BH02 @ 12'</u>	<u>C</u>	<u>1</u>								<u>1140</u>	
	<u>BH03 @ 7'</u>	<u>C</u>	<u>1</u>								<u>1335</u>	
	<u>SPD1</u>	<u>C</u>	<u>1</u>								<u>1340</u>	
	<u>SPD2</u>	<u>C</u>	<u>1</u>								<u>1345</u>	
	<u>SPD3</u>	<u>C</u>	<u>1</u>								<u>1350</u>	
	<u>SPD4</u>	<u>C</u>	<u>1</u>								<u>1350</u>	
	<u>SPD5</u>	<u>C</u>	<u>1</u>								<u>1350</u>	

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Relinquished By: [Signature] Date: 4/11/18  
 Relinquished By: [Signature] Date: 7/15  
 Received By: [Signature]

Turnaround Time:  Standard  Rush  
 Thermometer ID #113  
 Correction Factor -0.6°C  
 Bacteria (only)  Cool  Intact  Yes  No  
 Sample Condition  Observed Temp. °C  Corrected Temp. °C  
 Remarks: URSOLUN, LLC

Delivered By: (Circle One)  UPS  Bus  Other  
 Observed Temp. °C: 32.2  
 Corrected Temp. °C: 2.102  
 Checked By: [Signature]  
 Verbal Result:  Yes  No  Add'l Phone #:  
 All Results are emailed. Please provide Email address:  
 Bacteria (only)  Cool  Intact  Yes  No  
 Sample Condition  Observed Temp. °C  Corrected Temp. °C



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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: ensolum, LLC  
 Project Manager: helly lowery  
 Address: 8122 NW 1st Parks Hwy  
 City: Durbood State: NM Zip: 88220  
 Phone #: 914-733-8115 Fax #: \_\_\_\_\_  
 Project #: 0881210231 Project Owner: Enterprise  
 Project Name: Line B-7  
 Project Location: 92.580824, -104.11217  
 Sampler Name: S. Faldematera

P.O. #: A.A.  
 Company: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS REQUEST	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:				ICE / COOL
<u>H231723</u>	<u>SP016</u>	<u>G</u>	<u>1</u>			<u>X</u>					<u>9/11/23</u>	<u>1400</u>	<u>BTEX</u>	
	<u>SP017</u>											<u>1405</u>	<u>TPH</u>	
	<u>0501</u>											<u>1410</u>	<u>Chlorides</u>	
	<u>0502</u>											<u>1415</u>		
	<u>0503</u>											<u>1420</u>		
	<u>0504</u>											<u>1425</u>		
	<u>0505</u>											<u>1430</u>		
	<u>0506</u>											<u>1435</u>		
	<u>0507</u>											<u>1440</u>		
	<u>0508</u>											<u>1445</u>		

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Relinquished By: \_\_\_\_\_ Date: 9/12/23 Time: 1415  
 Received By: S. Faldematera  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Verbal Result:  Yes  No  Add'l Phone #: \_\_\_\_\_  
 All Results are emailed. Please provide Email address: \_\_\_\_\_  
 REMARKS: Lowery @ ensolum.com

Delivered By: (Circle One)  UPS  Bus  Other: \_\_\_\_\_  
 Observed Temp. °C: 3.2  
 Corrected Temp. °C: 2.0  
 Sample Condition:  Intact  Cool  Yes  No  Yes  No

Turnaround Time:  Standard  Rush  
 Thermometer ID #113 8 DAY TOT  
 Correction Factor -0.8°C  
 Bacteria (only) Sample Condition:  Cool  Intact  Yes  No  Yes  No  
 Corrected Temp. °C: \_\_\_\_\_  
 Cardinal cannot accept verbal changes. Please email changes to cely.keene@cardinallabsnm.com



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> <u>arsolum, LLC</u>	<b>P.O. #:</b> <u>AA</u>
<b>Project Manager:</b> <u>Kelly Loyery</u>	<b>Company:</b>
<b>Address:</b> <u>8122 North Fork HWY</u>	<b>Attn:</b>
<b>City:</b> <u>Lawford</u>	<b>Address:</b>
<b>State:</b> <u>NM</u>	<b>City:</b>
<b>Zip:</b> <u>88220</u>	<b>State:</b>
<b>Phone #:</b> <u>214-783-3145</u>	<b>Zip:</b>
<b>Fax #:</b>	<b>Phone #:</b>
<b>Project #:</b> <u>038026237</u>	<b>Project Owner:</b> <u>Enterprise</u>
<b>Project Name:</b> <u>Line B-7</u>	<b>Project Location:</b> <u>92.58024, -104.11217</u>
<b>Sampler Name:</b>	<b>FOR LAB USE ONLY</b>

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
<u>A231723</u>	<u>0509</u>	<u>G</u>								<u>4/11/23</u>	<u>1450</u>	<u>BTEX</u>
	<u>0510</u>										<u>1455</u>	<u>TPH</u>
	<u>0511</u>										<u>1500</u>	<u>Chlorides</u>
	<u>0512</u>										<u>1505</u>	
	<u>0513</u>										<u>1510</u>	
	<u>0514</u>										<u>1515</u>	
	<u>0515</u>										<u>1520</u>	
	<u>0516</u>										<u>1525</u>	
	<u>0517</u>										<u>1530</u>	
	<u>0518</u>										<u>1535</u>	

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**Relinquished By:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Received By:** Speckliquesy **Date:** 4/12/23

**Time:** \_\_\_\_\_ **Time:** 7:15

**Relinquished By:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Received By:** Speckliquesy **Date:** \_\_\_\_\_

**Time:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**Delivered By: (Circle One)**  UPS  Bus  Other

**Observed Temp. °C:** 3.2 **Sample Condition:**  Cool  Intact

**Corrected Temp. °C:** 2.6  Yes  No

**Checked By:** [Signature] **Initials:** \_\_\_\_\_

**Turnaround Time:**  Standard  Rush

**Thermometer ID #113:** 84047 **Bacteria (only) Sample Condition:**  Cool  Intact

**Correction Factor -0.6°C:**  Yes  No **Observed Temp. °C:** \_\_\_\_\_

**Corrected Temp. °C:** \_\_\_\_\_

Verbal Result:  Yes  No **Add'l Phone #:** \_\_\_\_\_

All Results are emailed. Please provide Email address: \_\_\_\_\_

REMARKS: Midway @ arsolum.com

FORM 008 K-3-3-077012Z

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Prisolum, LLC  
 Project Manager: Kelly Covery  
 Address: 5712 East Park Blvd Hwy  
 City: Carterswood State: NM Zip: 88520  
 Phone #: 505-738-8105 Fax #: \_\_\_\_\_  
 Project #: 085121025-1 Project Owner: Enterprise  
 Project Name: Line B-1  
 Project Location: 92,58024, -104,11217  
 Sampler Name: J. Polonowata

P.O. #: 0-0  
 Company: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV		DATE	TIME	ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL			
<u>H231723</u>	<u>D519</u>	<u>0</u>	<u>1</u>			<u>X</u>					<u>4/11/23</u>	<u>1545</u>	<u>BTEX</u>	
<u>41</u>	<u>D520</u>	<u>0</u>	<u>1</u>								<u>4/11/23</u>	<u>1550</u>	<u>TPH</u>	
<u>42</u>	<u>D521</u>	<u>0</u>	<u>1</u>								<u>4/11/23</u>	<u>1555</u>	<u>Chlorides</u>	
<u>43</u>	<u>D522</u>	<u>0</u>	<u>1</u>								<u>4/11/23</u>	<u>1600</u>		
<u>44</u>	<u>D523</u>	<u>0</u>	<u>1</u>								<u>4/11/23</u>	<u>1605</u>		

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Relinquished By: \_\_\_\_\_ Date: 4/12/23 Received By: Kelly Covery  
 Time: 7:45  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Received By: \_\_\_\_\_  
 Time: \_\_\_\_\_  
 Verbal Result:  Yes  No  Add'l Phone #: \_\_\_\_\_  
 All Results are emailed. Please provide Email address: \_\_\_\_\_  
 REMARKS: Prisolum, LLC

Delivered By: (Circle One) Observed Temp. °C: 3.2 Sample Condition:  Intact  Cool  Intact  
 Corrected Temp. °C: 2.0  Yes  No  No  No  
 Checked By: (Initials) \_\_\_\_\_  
 Turnaround Time:  Standard  Rush  Bacteria (only)  Cool  Intact  
 Thermometer ID #113  Yes  No  No  No  
 Correction Factor -0.5°C  Yes  No  No  No  
 Corrected Temp. °C: \_\_\_\_\_

FORM 000-R-33-07/1/01/22

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

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May 02, 2023

KELLY LOWERY

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: LINE B - 7

Enclosed are the results of analyses for samples received by the laboratory on 04/27/23 11:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
 KELLY LOWERY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	04/27/2023	Sampling Date:	04/27/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	LINE B - 7	Sampling Condition:	Cool & Intact
Project Number:	03B1226237	Sample Received By:	Tamara Oldaker
Project Location:	ENTERPRISE - 32.580324-104.11217		

**Sample ID: NORTH 0.25' (H232068-01)**

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	04/28/2023	ND	1.68	84.1	2.00	16.0	
Toluene*	<0.050	0.050	04/28/2023	ND	1.92	95.9	2.00	15.5	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.18	109	2.00	14.4	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.47	108	6.00	15.9	
Total BTEX	<0.300	0.300	04/28/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2023	ND	191	95.3	200	2.29	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	172	86.0	200	0.298	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KELLY LOWERY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	04/27/2023	Sampling Date:	04/27/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	LINE B - 7	Sampling Condition:	Cool & Intact
Project Number:	03B1226237	Sample Received By:	Tamara Oldaker
Project Location:	ENTERPRISE - 32.580324-104.11217		

**Sample ID: EAST 0.25' (H232068-02)**

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	04/28/2023	ND	1.68	84.1	2.00	16.0	
Toluene*	<0.050	0.050	04/28/2023	ND	1.92	95.9	2.00	15.5	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.18	109	2.00	14.4	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.47	108	6.00	15.9	
Total BTEX	<0.300	0.300	04/28/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/28/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2023	ND	191	95.3	200	2.29	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	172	86.0	200	0.298	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KELLY LOWERY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	04/27/2023	Sampling Date:	04/27/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	LINE B - 7	Sampling Condition:	Cool & Intact
Project Number:	03B1226237	Sample Received By:	Tamara Oldaker
Project Location:	ENTERPRISE - 32.580324-104.11217		

**Sample ID: SOUTH 0.25' (H232068-03)**

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	04/28/2023	ND	1.68	84.1	2.00	16.0	
Toluene*	<0.050	0.050	04/28/2023	ND	1.92	95.9	2.00	15.5	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.18	109	2.00	14.4	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.47	108	6.00	15.9	
Total BTEX	<0.300	0.300	04/28/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/28/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2023	ND	191	95.3	200	2.29	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	172	86.0	200	0.298	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 90.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KELLY LOWERY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	04/27/2023	Sampling Date:	04/27/2023
Reported:	05/02/2023	Sampling Type:	Soil
Project Name:	LINE B - 7	Sampling Condition:	Cool & Intact
Project Number:	03B1226237	Sample Received By:	Tamara Oldaker
Project Location:	ENTERPRISE - 32.580324-104.11217		

**Sample ID: WEST 0.25' (H232068-04)**

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	04/28/2023	ND	1.68	84.1	2.00	16.0	
Toluene*	<0.050	0.050	04/28/2023	ND	1.92	95.9	2.00	15.5	
Ethylbenzene*	<0.050	0.050	04/28/2023	ND	2.18	109	2.00	14.4	
Total Xylenes*	<0.150	0.150	04/28/2023	ND	6.47	108	6.00	15.9	
Total BTEX	<0.300	0.300	04/28/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/28/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2023	ND	191	95.3	200	2.29	
DRO >C10-C28*	<10.0	10.0	04/28/2023	ND	172	86.0	200	0.298	
EXT DRO >C28-C36	<10.0	10.0	04/28/2023	ND					

Surrogate: 1-Chlorooctane 86.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QR-04 The RPD for the BS/BSD was outside of historical limits.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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APPENDIX F

C-141

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

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

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NAPP2308225219
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	Enterprise Field Services LLC	OGRID	241602
Contact Name	Robert Dunaway	Contact Telephone	575-628-6802
Contact email	rhunaway@eprod.com	Incident # (assigned by OCD)	nAPP2308225219
Contact mailing address	PO Box 4324, Houston, TX 77210		

### Location of Release Source

Latitude 32.580324 Longitude -104.11217  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	B-7 Pipeline	Site Type	Gathering Pipeline
Date Release Discovered	03/23/2023	API# (if applicable)	

Unit Letter	Section	Township	Range	County
B	18	20S	29E	Eddy

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 7	Volume Recovered (bbls) -0-
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf) 13000	Volume Recovered (Mcf) -0-
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

Found a rupture on a gathering pipeline, cause is to be determined. The gas portion of this release constitutes venting that occurred during an emergency or malfunction, as authorized by NMOCD regulations at NMAC 19.15.28.8.A and B(1). This release therefore is not prohibited by NMAC 19.15.29.8.A.

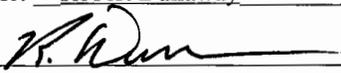
State of New Mexico  
Oil Conservation Division

Incident ID	NAPP2308225219
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Gas loss > 500 mscf
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes. Robert Dunaway. NMOCD e-Portal, 3/23/2023 by NOR via the NMOCD e-Portal	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:   
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
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.
Printed Name: <u>Robert Dunaway</u> Title: <u>Senior Environmental Engineer</u> Signature: <u></u> Date: <u>4/5/23</u> email: <u>rhunaway@eprod.com</u> Telephone: <u>575-628-6802</u>
<b>OCD Only</b> Received by: <u>Jocelyn Harimon</u> Date: <u>04/05/2023</u>

Gas loss was calculated by an overall mass balance of the Enterprise gathering system.

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 204361

**CONDITIONS**

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 204361
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jharimon	None	4/5/2023

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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

CONDITIONS

Action 226166

**CONDITIONS**

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 226166
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2308225219 B-7 GATHERING LINE, thank you. This closure is approved.	11/14/2023