



December 15, 2023

**New Mexico Oil Conservation Division**

New Mexico Energy, Minerals, and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Closure Request  
EVGSAU Sat 6 Mobile Tester  
Incident Number NAPP2304744550  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the EVGSAU Sat 6 Mobile Tester (Site). The purpose of the assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of crude oil and produced water at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2304744550.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit I, Section 33, Township 17 South, Range 35 East, in Lea County, New Mexico (32.7900°, -103.4551°) and is associated with oil and gas exploration and production operations on state land managed by the New Mexico State Land Office (SLO).

On February 4, 2023, the gasket on the mobile tester failed, resulting in the release of approximately 17 barrels (bbls) of produced water and 3 bbls of crude oil into the pasture east of the pad. A vacuum truck was immediately dispatched to the Site and approximately 16 bbls of produced water were recovered. Maverick reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on February 9, 2023. The release was assigned Incident Number NAPP2304744550.

Since the release entered the pasture, the release location was assessed for determination of whether the release encroached into undisturbed areas to comply with the Cultural Properties Protection Rule (CPP) prior to disturbing the surface with mechanical equipment. The NMSLO was notified of potential disturbance of the pasture on a *Right of Entry Request for Remediation* form, which was submitted to the NMSLO on March 17, 2023. The request included a copy of the Form C-141, a topographic location map, and a satellite image of the location. The Right of Entry (ROE) Permit was fully executed on May 1, 2023. Ensolum also contracted with Beaver Creek Archeology to conduct an Archaeological Records Management System (ARMS) review. Based on a review of prior cultural resource surveys that overlap the release extent, no cultural were identified within and/or around the release extent requiring oversight or modifications to remediation efforts. A copy of the fully executed ROE Permit and the NMSLO Cultural Resources Cover Sheet, is included as Appendix A.

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## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be between 51 and 100 feet below ground surface (bgs) based on the nearest available groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well L-05834-POD5. The well appears to be located north of the Site in the NMOSE database; however, ground truthing of the well places it approximately 203 feet southeast of the release extent. The groundwater well was drilled during in 1971 to depth of 234 feet bgs and has a reported depth to groundwater of 65 feet bgs. A water well drilled by the United States Geological Survey (324708103270401) is located southeast of the Site. The most recent water level data from that well is from December 20, 1990 and indicates groundwater was 66.94 feet bgs. Data from numerous other wells in the vicinity also document depth to water is 50 feet or greater. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix B.

Water well L-05834-POD5 was drilled in 1971 by Southwestern Public Service Company to supply water for a steam electric generating plant in the region. It is currently owned by Xcel Energy, permitted through the United States Environmental Protection Agency (EPA) as a Non-Transient Non-Community Water System (NTNC; Water System Number NM3593213) for Xcel's Cunningham Station, located 8 miles to the southeast of the Site. A NTNC water system is a public water system that regularly supplies water to at least 25 of the same people at least six months per year. The majority of the system is located at the Cunningham Station. The system appears to have been reduced to a treatment system on site and water well L-05834-POD5, also Well #28 in Water System NM3593213, is currently inactive. However, since the water well could be used as a supply well, Maverick will consider it as a freshwater well located within 1,000 feet of the release.

The closest continuously flowing or significant watercourse to the Site is depression, characterized as a semipermanently flooded palustrine wetland by the National Wetlands Inventory, located approximately ¼-mile southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from a spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

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## SITE ASSESSMENT ACTIVITIES

On February 8, 2023, site assessment activities were conducted at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Three assessment soil samples (SS01 through SS03) were collected within the release extent at a depth of 0.5 feet bgs to assess surficial soil within the release. Four assessment soil samples (SS04 through SS07) were collected around the visible release extent at a depth of 0.5 feet bgs to confirm the lateral extent of the surface release. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix C.

The assessment soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for assessment soil samples SS01 through SS03, collected within the release extent, indicated TPH and chloride concentrations exceeded the Site Closure Criteria. Additionally, soil sample SS02 contained greater than 50 mg/kg BTEX. Laboratory analytical results for assessment soil samples SS04 through SS07, collected around the release extent, indicated that all COC concentrations were compliant with the Site Closure Criteria, and defined the lateral extent of the surface release. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix D. Based on visible staining in the release area and laboratory analytical results for assessment soil samples SS01 through SS03, excavation activities were warranted.

## EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between November 17, 2023 and November 28, 2023, Ensolum personnel were at the Site to oversee excavation of impacted soil as indicated by visible staining in the release area and laboratory analytical results for the assessment soil samples. To direct excavation activities, soil was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. Excavation activities were performed using hand shovels, track-mounted backhoe, and transport vehicles. The excavation was completed to depths ranging from 1-foot to 2 feet bgs.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS23, FS05A, FS06A, FS06B, FS07A, FS09A, FS09B, FS10A, FS10B, FS16A, FS18A, FS19A were collected from the floor of the excavation at depths ranging from 1-foot to 2 feet bgs. Composite soil samples SW01 through SW04, SW02A, SW03A, and SW04A were collected from the sidewalls of the excavation at depths ranging from the ground surface to 2 feet bgs. The excavation soil samples were handled and analyzed at Cardinal Laboratories following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3.

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Laboratory analytical results for excavation floor samples FS01 through FS04, FS05A, FS06B, FS07A, FS08, FS09B, FS10B, FS11 through FS15, FS16A, FS17, FS18A, FS19A, FS20 through FS23 and excavation sidewall samples SW01 and SW02A through SW04A, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for excavation samples FS05, FS06, FS06A, FS07, FS09, FS09A, FS10, FS10A, FS16, FS18, FS19, and SW02 through SW04 initially exceeded the Site Closure Criteria for TPH or chloride; additional soil was removed from these areas and subsequent excavation samples FS05A, FS06B, FS07A, FS09B, FS10B, FS16A, FS18A, FS19A, and SW02A through SW04A were compliant. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included as Appendix D.

The excavation measured approximately 4,500 square feet in areal extent. A total of approximately 370 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

## CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the February 4, 2023, release of crude oil and produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Based on the laboratory analytical results, no further remediation is required. The release occurred off-pad in the pasture. As such, the disturbed pasture area will be reclaimed following the Reclamation Plan in Appendix E.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident NAPP2304744550. NMOCD notifications are included in Appendix F and the final Form C-141 is included in Appendix G.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or [acole@ensolum.com](mailto:acole@ensolum.com).

Sincerely,  
**Ensolum, LLC**



Julianna Falcomata  
Staff Geologist



Aimee Cole  
Senior Managing Scientist

cc: Bryce Wagoner, Maverick Natural Resources  
New Mexico State Land Office

### Appendices:

Figure 1	Site Receptor Map
Figure 2	Assessment Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results





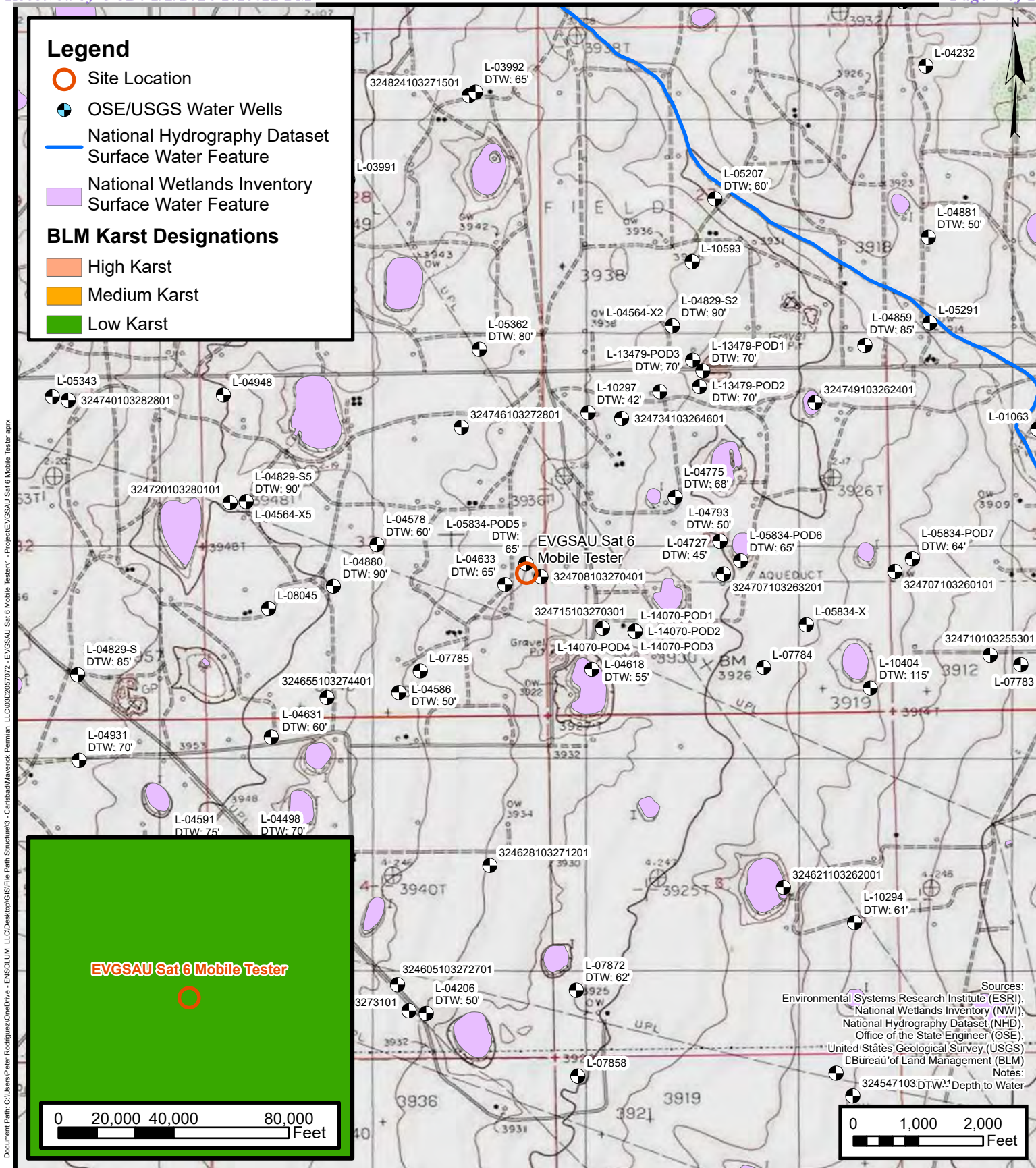
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Appendix A	ROE Permit and NMSLO Cultural Resources Cover Sheet
Appendix B	Referenced Well Records
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain of Custody Documentation
Appendix E	Reclamation Plan
Appendix F	NMOCD Notifications
Appendix G	Form C-141



FIGURES



## Site Receptor Map

Maverick Permian, LLC

EVGSAU Sat 6 Mobile Tester

Incident ID: NAPP2304744550

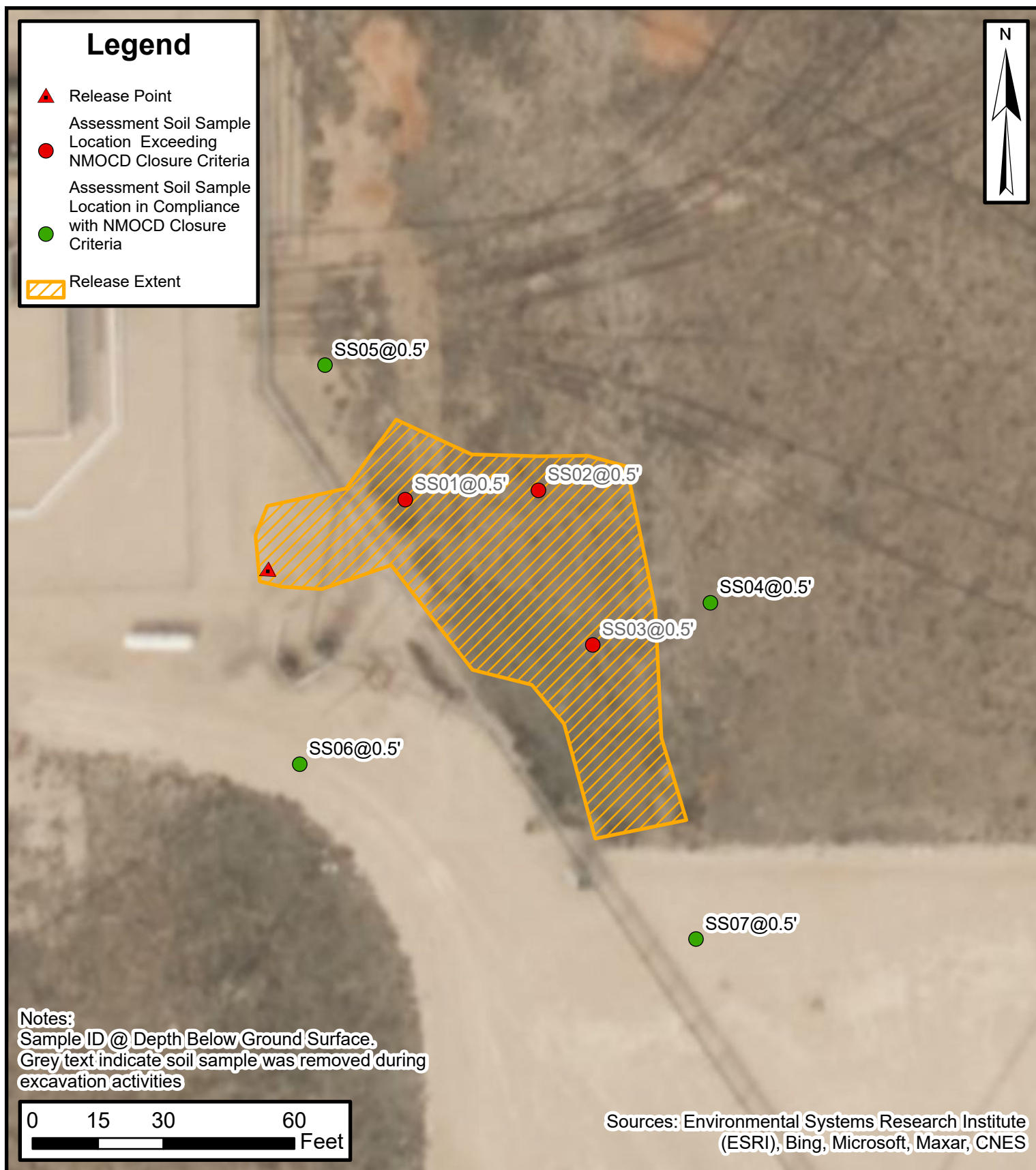
Unit: I, Section 33, Township: 17S, Range: 35E,  
 Lea County, New Mexico

FIGURE

1



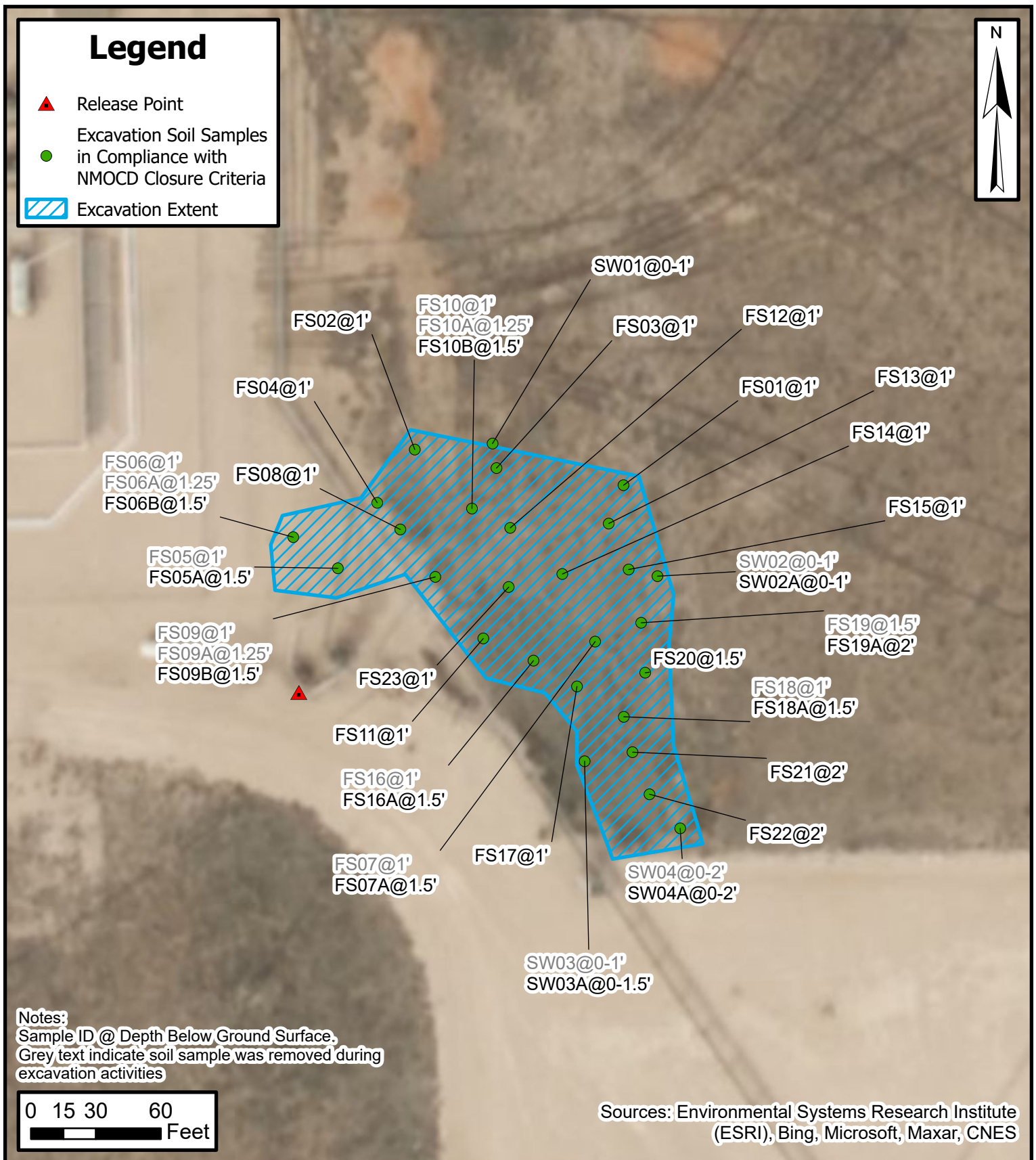




## Soil Sample Locations

Maverick Permian, LLC  
 EVGSAU Sat 6 Mobile Tester  
 Incident Number: NAPP2304744550  
 Unit I, Sec 33, T17S, R35E  
 Lea County, New Mexico

FIGURE  
**2**



## Soil Sample Locations

Maverick Permian, LLC  
 EVGSAU Sat 6 Mobile Tester  
 Incident Number: NAPP2304744550  
 Unit I, Sec 33, T17S, R35E  
 Lea County, New Mexico

FIGURE  
 2





TABLES



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 EVGSAU Sat 6 Mobile Tester  
 Maverick Permian, LLC  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	100	600
Assessment Soil Samples									
SS01	2/8/2023	0.5	<0.099	24.5	1,110	20,000	2,810	23,900	6,190
SS02	2/8/2023	0.5	<0.099	81.5	736	17,300	2,250	20,300	4,700
SS03	2/8/2023	0.5	<0.101	27.7	308	8,480	1,100	9,890	7,060
SS04	2/8/2023	0.5	<0.002	<0.004	<50.0	<50.0	<50.0	<50.0	42.7
SS05	2/8/2023	0.5	<0.002	<0.004	<49.9	<49.9	<49.9	<49.9	11.1
SS06	2/8/2023	0.5	<0.002	<0.004	<49.9	<49.9	<49.9	<49.9	8.63
SS07	2/8/2023	0.5	<0.002	<0.004	<49.9	<49.9	<49.9	<49.9	114
Excavation Sidewall Soil Samples									
SW01	11/20/2023	0-1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	96.0
SW02	11/21/2023	0-1	<0.050	<0.300	<10.0	294	59.5	354	800
SW02A	11/28/2023	0-1	<0.050	<0.300	<10.0	24.5	<10.0	24.5	192
SW03	11/22/2023	0-1	<0.050	<0.300	<10.0	287	81.5	369	144
SW03A	11/28/2023	0-1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SW04	11/27/2023	0-2	<0.050	<0.300	<10.0	455	97.2	552	528
SW04A	11/28/2023	0-2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
Excavation Floor Soil Samples									
FS01	11/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	112
FS02	11/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
FS03	11/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	96.0
FS04	11/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
FS05	11/17/2023	1	<0.050	<0.300	<10.0	1,440	328	1,768	2,920
FS05A	11/28/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	528



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 EVGSAU Sat 6 Mobile Tester  
 Maverick Permian, LLC  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
FS06	11/17/2023	1	<0.050	<0.300	<10.0	193	107	300	352
FS06A	11/27/2023	1.25	<0.050	<0.300	<10.0	23	<10.0	22.8	832
FS06B	11/28/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	128
FS07	11/21/2023	1	<0.050	<0.300	<10.0	181.0	43.9	225	1,360
FS07A	11/28/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	96.0
FS08	11/20/2023	1	<0.050	<0.300	<10.0	24.0	<10.0	24.0	288
FS09	11/20/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	864
FS09A	11/22/2023	1.25	<0.050	<0.300	<10.0	266	48.0	314	784
FS09B	11/28/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	160
FS10	11/20/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	912
FS10A	11/22/2023	1.25	<0.050	<0.300	<10.0	159	27.6	187	1,620
FS10B	11/28/2023	1.5	<0.050	<0.300	<10.0	27.8	<10.0	27.8	160
FS11	11/20/2023	1	<0.050	<0.300	<10.0	28.7	<10.0	28.7	416
FS12	11/20/2023	1	<0.050	<0.300	<10.0	14.0	23	36.5	304
FS13	11/20/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	208
FS14	11/20/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	336
FS15	11/20/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	208
FS16	11/21/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	736
FS16A	11/28/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
FS17	11/22/2023	1	<0.050	<0.300	<10.0	52.0	<10.0	52.0	96.0
FS18	11/22/2023	1	<0.050	<0.300	<10.0	16.9	<10.0	16.9	656
FS18A	11/28/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	304
FS19	11/27/2023	1.5	<0.050	<0.300	<10.0	27.3	<10.0	27.3	672
FS19A	11/28/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	160
FS20	11/27/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	464
FS21	11/27/2023	2	<0.050	<0.300	<10.0	83.0	10.3	93.3	48.0



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
EVGSAU Sat 6 Mobile Tester  
Maverick Permian, LLC  
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
FS22	11/27/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
FS23	11/28/2023	1	<0.050	<0.300	<10.0	11.8	<10.0	11.8	80.0

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Grey text represents samples that have been excavated



## APPENDIX A

### ROE Permit and NMSLO Cultural Resources Cover Sheet

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Stephanie Garcia Richard  
COMMISSIONER

*State of New Mexico*  
*Commissioner of Public Lands*

310 OLD SANTA FE TRAIL  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

[www.nmstatelands.org](http://www.nmstatelands.org)

May 1, 2023

Maverick Natural Resources, LLC  
1410 NW County Rd  
Hobbs, NM 88240

Attn: Bryce Wagoner

Re: Right-of-Entry Permit No.: **RE-6493/EVGSAU Sat 6 Mobile Tester**

Dear Applicant:

Enclosed is the completed captioned Right-of-Entry permit. If any corrections are necessary, please let us know and we will retype or amend this permit as necessary.

**The New Mexico State Land Office requires you to notify any surface lessees that will be impacted by your project prior to construction.**

If you have any questions, or if we may be of further assistance, please do not hesitate to contact Amy Velazquez of my staff at (505) 827-5789.

Sincerely,

  
James S. Bordegaray  
Director, Commercial Resources Division

JSB/alv



NEW MEXICO STATE LAND OFFICE  
Commissioner of Public Lands  
Stephanie Garcia Richard  
New Mexico State Land Office Building  
P.O. Box 1148, Santa Fe, NM 87504-1148

**RIGHT OF ENTRY PERMIT  
CONTRACT NO. RE – 6493**

This Agreement is made and entered into between the COMMISSIONER OF PUBLIC LANDS (the "Commissioner") and

**Maverick Natural Resources, LLC  
1410 NW County Rd  
Hobbs, NM 88240**

("Permittee"). The parties agree as follows:

**1. RIGHT OF ENTRY ("ROE")**

The Commissioner grants to Permittee, and its authorized representatives, employees, and contractors, permission to use the state trust lands identified below (the "Premises"), and ingress and egress to the Premises, for the sole purposes of (1) surveying/conducting an environmental investigation on the site of a produced water and crude oil spill (the "Premises"), Incident No. nAPP2304744550, and (2) conducting surface reclamation activities, including removal of equipment and debris, and any required remediation per 19.2.100.67 NMAC.

The Premises is situated in the following location in Lea County, New Mexico:

Section	Township	Range	Subdivision	County	Longitude/Latitude
33	17S	35E	NE4SE4	Lea	32.7900,-103.4551

**2. TERM AND TERMINATION**

Right of entry is granted for a term of **180 days**, commencing on the execution date of this document by the Commissioner of Public Lands.

**3. FEES**

\$ 50.00 Application Fee  
\$ 500.00 Permit Fee  
\$ 550.00 Total Fee

**RE-6493**

#### 4. CONDITIONS OF USE

- A. The issuance of this ROE does not guarantee that any subsequent lease, permit or any other instrument will be issued to Permittee for the Premises.
- B. No blading or widening of any roads that provide access to the Premises is permitted under this ROE.
- C. No sale of any material extracted from the Premises is allowed under this ROE.
- D. Permittee shall observe all applicable federal, state and local laws and regulations.
- E. Permittee shall take all reasonable precautions to prevent and suppress forest, brush and grass fires and prevent pollution of waters on or in the vicinity of the Premises.
- F. Permittee shall not block or disrupt roads or trails commonly in use.
- G. This ROE is subject to any and all easements and rights-of-way previously granted and now in force and affect.
- H. Permittee shall be responsible for repair and restitution for damage to any Premises or improvements as a result of activities related to this ROE.
- I. Prior to entering the Premises, Permittee must identify and contact any existing surface lessees. The grant of this ROE does not allow access across private lands.
- J. Permittee may utilize this ROE upon its execution for inspection of the Premises and to conduct any necessary tests or inspections. Permittee may not conduct remediation or reclamation work until it has submitted a written plan for such work, and received State Land Office approval.
- K. Personnel present on State Land: **Maverick Natural Resources personnel and contractors.**
- L. Equipment and materials present on State Land: **Heavy equipment, trucks, and associated materials.**

#### 5. SITE CONDITIONS

- A. No surface disturbance, other than soil sampling, except as described in a reclamation plan submitted to and approved by the State Land Office.
- B. Access to the Premises shall be over existing roads.
- C. The natural environmental conditions that exist contemporaneously with this grant of ROE shall be preserved and protected. Permittee must follow all applicable environmental and cultural resource protection laws and regulations.

#### 6. INDEMNITY

Permittee shall save, hold harmless, indemnify and defend the State of New Mexico, the Commissioner and Commissioner's employees, agents and contractors, in both their official and individual capacities, from any and all liability, claims, losses, damages, or expenses of any character or nature whatsoever, including but not limited to attorney's fees, court costs, loss of land value or use, third party claims, penalties, or removal, remedial or restoration costs arising out of, or alleged to arise out of Permittee's operations or presence on the Premises (or operations or presence of his representatives, employees, or contractors).

**7. SURVIVAL OF TERMS**

Permittee's obligations regarding indemnity, site conditions, and compliance with applicable standards and laws, shall survive the termination, cancellation or relinquishment of this Agreement, and any cause of action of the Commissioner to enforce any right, liability, claim, loss, damage or expense under those paragraphs shall not be deemed to accrue until the Commissioner's actual discovery of said right, liability, claim, loss, damage or expense.

**8. NOTIFICATION**

Permittee must notify the State Land Office immediately in the event Permittee or his representatives, employees, or contractors observe any spill, fire, or other emergency on the Premises, or if Permittee or his representatives, employees, or contractors experience any serious injury while on the Premises.

WITNESS the hands of PERMITTEE and COMMISSIONER on the day(s) and year entered below.

  
\_\_\_\_\_  
PERMITTEE SIGNATURE

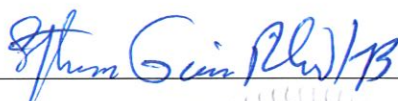
DATE: 4/13/23

Bryce Wagoner

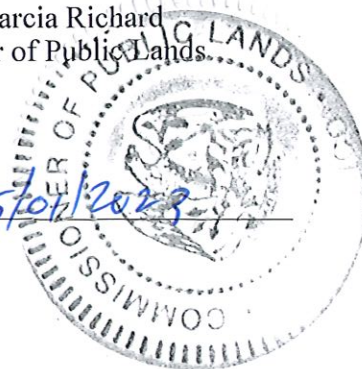
HSE Specialist

PERMITTEE NAME AND TITLE (PRINT)

SEAL:

BY:   
Stephanie Garcia Richard  
Commissioner of Public Lands

DATE: 05/01/2023







Stephanie Garcia Richard, Commissioner of Public Lands  
State of New Mexico

## NMSLO Cultural Resources Cover Sheet Exhibit

**NMCRIS Activity Number:**

(if applicable)

**Exhibit Type** (select one)

**ARMS Inspection/Review** - Summarize the results (select one):

- (A) The entire area of potential effect or project area has been previously surveyed to current standards and **no cultural properties** were found within the survey area.
- (B) The entire area of potential effect or project area has been previously surveyed to current standards and **cultural properties were found** within the survey area.
- (C) The entire area of potential effect or project area has **not** been previously surveyed or **has not been surveyed** to current standards. A complete archaeological survey will be conducted and submitted for review.

**Archaeological Survey**

**Findings:**

**Negative** - No further archaeological review is required.

**Positive** - Have avoidance and protection measures been devised? Select one:

**Comments:**

**Project Details:**

NMSLO Lease Number (if available):

Cultural Resources Consultant:

Project Proponent (Applicant):

Project Title/Description:

**Project Location:**

County(ies):

PLSS/Section/Township/Range):

---

***For NMSLO Agency Use Only:***

NMSLO Lease Number:

Acknowledgment-Only:

Lease Analyst:

Date Exhibit Routed to Cultural Resources Office:

---

*No person may alter the wording of the questions or layout of the cover sheet. The completion of this cover sheet by itself does not authorize anyone to engage in new surface disturbing activity before the review and approvals required by the Cultural Properties Protections Rule.*

Form Revised 12 22



# Beaver Creek

## ARCHAEOLOGY

EVGSAU Sat 6 Mobile Tester

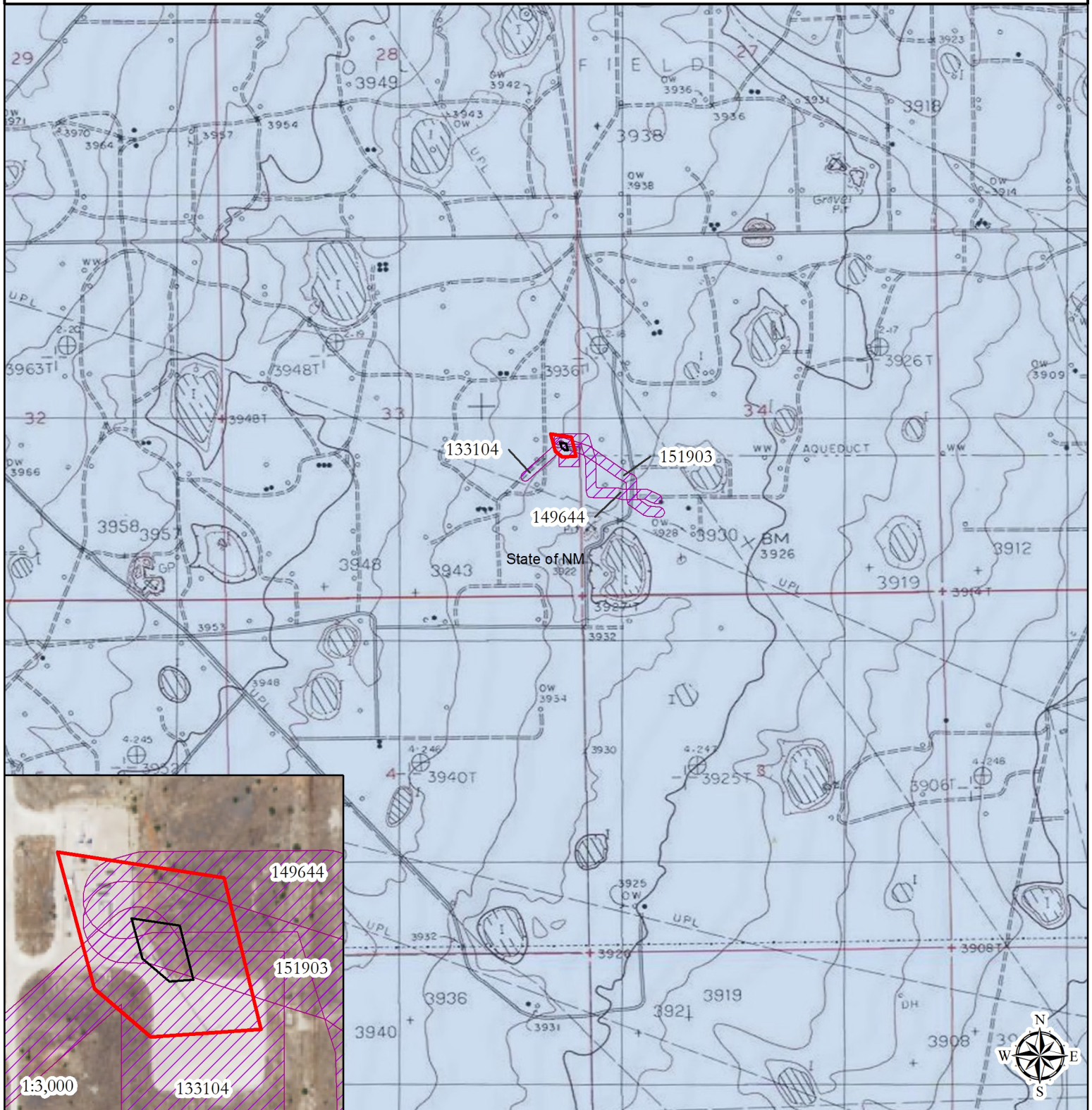
Ensolum, LLC

T17S R35E Sec. 33

Lovington SW(1985) Quad. Map

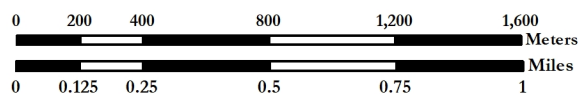
Monument-Seminole Draws Drainage

Lea County, New Mexico



### Legend

- Project Area (2.00 Acres)
- Previously Surveyed (1.89 Acres)
- APE (0.19 Acres)



Base Map: USGS 7.5'  
Scale: 1:24,000  
UTM NAD83 Zone 13





## APPENDIX B

### Referenced Well Records

---





# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
L	05834 POD5	2 2 4	33	17S	35E	644663	3629109*

x

**Driller License:** 46      **Driller Company:** ABBOTT BROTHERS COMPANY

**Driller Name:** MURRELL ABBOTT

<b>Drill Start Date:</b> 12/23/1971	<b>Drill Finish Date:</b> 12/28/1971	<b>Plug Date:</b>
<b>Log File Date:</b> 01/13/1972	<b>PCW Rev Date:</b> 03/29/1972	<b>Source:</b> Shallow
<b>Pump Type:</b> TURBIN	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b>	<b>Depth Well:</b> 234 feet	<b>Depth Water:</b> 65 feet

x

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	65	152	Sandstone/Gravel/Conglomerate
	155	212	Sandstone/Gravel/Conglomerate

x

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	114	234

x

<b>Meter Number:</b> 19673	<b>Meter Make:</b>
<b>Meter Serial Number:</b> NO METER	<b>Meter Multiplier:</b> 1.0000
<b>Number of Dials:</b> 6	<b>Meter Type:</b> Diversion
<b>Unit of Measure:</b> Gallons	<b>Return Flow Percent:</b>
<b>Usage Multiplier:</b>	<b>Reading Frequency:</b> Quarterly

x

### Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
01/01/2021	2021	6427	A	dd		0
03/31/2021	2021	6427	A	dd		0
06/30/2021	2021	6427	A	dd		0
09/30/2021	2021	6427	A	dd		0
11/12/2021	2021	0	A	dd		0
01/01/2022	2021	0	A	dd		0
03/31/2022	2022	0	A	dd		0
07/01/2022	2022	0	A	WEB		0 X
10/01/2022	2022	0	A	WEB		0 X
01/01/2023	2022	0	A	WEB		0 X

<b>**YTD Meter Amounts:</b>	<b>Year</b>	<b>Amount</b>
	2021	0
	2022	0

x

\*UTM location was derived from PLSS - see Help

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.

2/8/23 3:50 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary



get image list

WR File Number:

L 05834

Subbasin:

L

Cross Reference:

-

Primary Purpose:

IND

INDUSTRIAL

Primary Status:

PMT

PERMIT

Total Acres:

0

Subfile:

-

Header:

-

Total Diversion:

1150

Cause/Case:

-

Owner:

SOUTHWESTERN PUBLIC SERVICE CO

Contact:

PATTY HILL

Documents on File

	Trn #	Doc	File/Act	Status			From/ To	Acres	Diversion	Consumptive
				1	2	Transaction Desc.				
<a href="#">get images</a>	<a href="#">495768</a>	<a href="#">CLW</a>	<a href="#">1969-01-23</a>	PMT	MTR	L 05834	T	0	0	
<a href="#">get images</a>	<a href="#">495768</a>	<a href="#">CLW</a>	<a href="#">1969-01-23</a>	PMT	MTR	L 05834	F	0	0	
<a href="#">get images</a>	<a href="#">495738</a>	<a href="#">APPRO</a>	<a href="#">1968-07-16</a>	PMT	ET	L 05834	T	0	1150	

Current Points of Diversion

POD Number	Well Tag	Source	Q					X	Y	Other Location Desc
			64	Q16	Q4	Sec	Tw	Rng		
<a href="#">L 05834 POD5</a>	Shallow		2	2	4	33	17S	35E	644663	3629109*
<a href="#">L 05834 POD6</a>	Shallow		1	1	4	34	17S	35E	645673	3629122*
<a href="#">L 05834 POD7</a>	Shallow		1	1	3	35	17S	35E	646481	3629131*
<a href="#">L 05834 POD8</a>	Shallow		4	1	4	36	17S	35E	649102	3628955*  N1/2

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	
01/10/1966	PMT	0	1150	<a href="#">L 05834 POD5</a>	Shallow
				<a href="#">L 05834 POD6</a>	Shallow
				<a href="#">L 05834 POD7</a>	Shallow
				<a href="#">L 05834 POD8</a>	Shallow

Place of Use

Q		Q16	Q4	Sec	Tw	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	64												
		4	28	18S	36E		0	1150		IND	01/10/1966	PMT	ELECTRIC POWER GENERATION PLANT

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	1150		IND	01/10/1966	GW

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.

8/1/23 8:14 AM

WATER RIGHT  
SUMMARY



**Water System Detail Information**

Water System No.:	NM3593213	Federal Type:	NTNC
Water System Name:	XCEL ENERGY SPS CUNNINGHAM STATION	Federal Source:	GW
Principal County Served:	LEA	System Status:	A
Principal City Served:	HOBBS	Activity Date:	06-01-1977

Water System Contacts			
Type	Contact	Communication	
AC - Administrative Contact	HILL, PATTY 970 CR 65 EARTH, TX 79031	<b>Electronic Type</b>	<b>Value</b>
		EMAIL - Email	patty.hill@xcelenergy.com
		<b>Phone Type</b>	<b>Value</b>
		BUS - Business	806-272-8028
DO - Designated Operator	DENNIS, TERRY P O BOX 1650 HOBBS, NM 88240	MOB - Mobile	806-638-9987
		<b>Electronic Type</b>	<b>Value</b>
		EMAIL - Email	terry.dennis@xcelenergy.com
		<b>Phone Type</b>	<b>Value</b>
		BUS - Business	575-393-5717
		FAX - Facsimile	575-393-5208

Annual Operating Period(s)					
Eff. Begin Date	Eff. End Date	Start Month/Day	End Month/Day	Type	Population
12-21-2006	No End Date	1/1	12/31	NT	54

Service Connection(s)			
Type	Count	Meter Type	Meter Size
CB	1	MU	0

Service Area(s)	
Code	Name
NT	INDUSTRIAL/AGRICULTURAL

System Certification Requirements		
Certification Name	Code	Begin Date

Water System Facilities			
Fac. ID	Facility Name	Type Status Avail.	Unit Process Name Treatment Objective Name Treatment Process Name
<a href="#">93213000</a>	DIST	DS - A - P	
<a href="#">93213030</a>	TREATMENT PLANT #2	TP - A - P	CHLORINATIONDISINFECTIONHYPOCHLORINATION, POST
<a href="#">93213038</a>	STORAGE TANK #2 (HIGH TANK)	ST - A - P	
<a href="#">93213039</a>	DW #1	WL - A - P	
<a href="#">93213040</a>	TREATMENT PLANT #1	TP - A - P	RO UNITINORGANICS REMOVALREVERSE OSMOSIS
<a href="#">93213001</a>	WELL #1	WL - I - P	
<a href="#">93213002</a>	WELL #2	WL - I - P	
<a href="#">93213003</a>	WELL #3	WL - I - P	
<a href="#">93213004</a>	WELL #4	WL - I - P	
<a href="#">93213005</a>	WELL #5	WL - I - P	

<a href="#">93213006</a>	WELL #6	WL - I - P			
<a href="#">93213007</a>	WELL #7	WL - I - P			
<a href="#">93213008</a>	WELL #8	WL - I - P			
<a href="#">93213009</a>	WELL #9	WL - I - P			
<a href="#">93213010</a>	WELL #10	WL - I - P			
<a href="#">93213011</a>	WELL #11	WL - I - P			
<a href="#">93213012</a>	WELL #12	WL - I - P			
<a href="#">93213013</a>	WELL #13	WL - I - P			
<a href="#">93213014</a>	WELL #14	WL - I - P			
<a href="#">93213015</a>	WELL #15	WL - I - P			
<a href="#">93213016</a>	WELL #16	WL - I - P			
<a href="#">93213017</a>	WELL #17	WL - I - P			
<a href="#">93213018</a>	WELL #18	WL - I - P			
<a href="#">93213019</a>	WELL #19	WL - I - P			
<a href="#">93213020</a>	WELL #20	WL - I - P			
<a href="#">93213021</a>	WELL #21	WL - I - P			
<a href="#">93213022</a>	WELL #22	WL - I - P			
<a href="#">93213023</a>	WELL #23	WL - I - P			
<a href="#">93213024</a>	WELL #24	WL - I - P			
<a href="#">93213025</a>	WELL #25	WL - I - P			
<a href="#">93213026</a>	WELL #26	WL - I - P			
<a href="#">93213027</a>	WELL #27	WL - I - P			
<a href="#">93213028</a>	WELL #28	WL - I - P			
<a href="#">93213029</a>	SAMPLING STATION #1	SS - I - P			
<a href="#">93213031</a>	WELL #11A -PW1	WL - I - P			
<a href="#">93213032</a>	WELL #11B - PW2	WL - I - P			
<a href="#">93213033</a>	WELL #11 TREATMENT SKID	OT - I - P			
<a href="#">93213034</a>	WELL #11 TREATMENT SKID TREATMENT UNIT	TP - I - P	AERATION UNIT	ORGANICS REMOVAL	AERATION, CASCADE
<a href="#">93213035</a>	BOOSTER STATION #1	PC - I - P			
<a href="#">93213036</a>	PRESSURE TANK #1 (STANDPIPE)	PC - I - P			
<a href="#">93213037</a>	STORAGE TANK #1 (RAW WATER STORAGE TANK)	ST - I - P			

### Water System Facility Flows

Supplying Facility ID No.	Supplying Facility Name	Receiving Facility ID No.	Receiving Facility Name
TP - 93213030	TREATMENT PLANT #2	ST - 93213038	STORAGE TANK #2 (HIGH TANK)
ST - 93213038	STORAGE TANK #2 (HIGH TANK)	DS - 93213000	DIST
WL - 93213039	DW #1	TP - 93213040	TREATMENT PLANT #1
TP - 93213040	TREATMENT PLANT #1	TP - 93213030	TREATMENT PLANT #2

### Water Purchases

#### Water System \ Treatment Status

No Water Purchases

### Buyers of Water

**Water System / Population / Availability (blank, (S)easonal, (E)mergency, (I)nterim, (P)ermanent, (O)ther**

No Buyers



USGS Home  
Contact USGS  
Search USGS

National Water Information System: Web Interface


USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
United States

GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

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

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 324708103270401

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

USGS 324708103270401 17S.35E.33.422442

Lea County, New Mexico  
Latitude 32°47'23", Longitude 103°27'14" NAD27  
Land-surface elevation 3,935.00 feet above NGVD29  
The depth of the well is 234 feet below land surface.  
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1986-01-16		D	62610		3870.92	NGVD29	1	Z			A
1986-01-16		D	62611		3872.39	NAVD88	1	Z			A
1986-01-16		D	72019	64.08			1	Z			A
1990-12-20		D	62610		3868.06	NGVD29	1	Z			A
1990-12-20		D	62611		3869.53	NAVD88	1	Z			A
1990-12-20		D	72019	66.94			1	Z			A

Explanation


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

[Questions about sites/data?](#)  
[Feedback on this web site](#)  
[Automated retrievals](#)  
[Help](#)  
[Data Tips](#)  
[Explanation of terms](#)  
[Subscribe for system changes](#)  
[News](#)



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tw</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
L	04633	2	4	33	17S	35E	644564	3629010*	

---

**Driller License:** 46      **Driller Company:** ABBOTT BROTHERS COMPANY

**Driller Name:** ABBOTT, MURRELL

**Drill Start Date:** 04/20/1961      **Drill Finish Date:** 04/20/1961      **Plug Date:** 06/09/1961

**Log File Date:** 04/27/1961      **PCW Rcv Date:**      **Source:** Shallow

**Pump Type:**      **Pipe Discharge Size:**      **Estimated Yield:**

**Casing Size:** 6.63      **Depth Well:** 130 feet      **Depth Water:** 65 feet

---

**Water Bearing Stratifications:**

Top	Bottom	Description
65	130	Sandstone/Gravel/Conglomerate

---

**Casing Perforations:**

Top	Bottom
65	100

\*UTM location was derived from PLSS - see Help

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.

2/8/23 4:02 PM

POINT OF DIVERSION SUMMARY

Form WR-23

SANTA

STATE ENGINEER OFFICE

JUM ABO

WELL STATE "T" No. 7

## WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

## Section 1

			0

(A) Owner of well HONDO DRILLING COMPANYStreet and Number P.O. Box 116City Midland State TexasWell was drilled under Permit No. L-4633 and is located in theS<sub>1</sub> 1/4 NE 1/4 SE 1/4 of Section 33 Twp. 17 South Rge. 35 East(B) Drilling Contractor Abbott Brothers License No. WD-46Street and Number P.O. Box 637City Hobbs State New MexicoDrilling was commenced April 20 19Drilling was completed April 20 19 61

(Plat of 640 acres)

Elevation at top of casing in feet above sea level \_\_\_\_\_ Total depth of well 130State whether well is shallow or artesian shallow Depth to water upon completion 65

## Section 2

## PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1	65	130	65	water sand
2				
3				
4				
5				

## Section 3

## RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To
6 5/8	17	10	0	100	100	open	65	100

## Section 4

## RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

## Section 5

## PLUGGING RECORD

Name of Plugging Contractor \_\_\_\_\_ License No. \_\_\_\_\_

Street and Number \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

Tons of Clay used \_\_\_\_\_ Tons of Roughage used \_\_\_\_\_ Type of roughage \_\_\_\_\_

Plugging method used \_\_\_\_\_ Date Plugged \_\_\_\_\_ 19

Plugging approved by: \_\_\_\_\_

Cement Plugs were placed as follows:

No.	Depth of Plug		No. of Sacks Used
	From	To	

Basin Supervisor \_\_\_\_\_

FOR USE OF STATE ENGINEER ONLY

Date Received APR 27 AM 7:45 1961

File No. L-4633 Use O.W.D. Location No. 12.35.33.42.4

1961 MAY -2 AM 8:25  
STATE ENGINEER OFFICE  
SANTA FE, N.M.





Form WR-23

STATE ENGINEER OFFICE

SANTA FE

## WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

## Section 1


(A) Owner of well HONDO DRILLING COMPANY  
 Street and Number Box 116  
 City Midland State Texas  
 Well was drilled under Permit No. L-4633 and is located in the  
S<sub>1</sub> 4 NE 1/4 SE 1/4 of Section 33 Twp. 17 S Rge. 35 E  
 (B) Drilling Contractor \_\_\_\_\_ License No. \_\_\_\_\_  
 Street and Number \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_  
 Drilling was commenced \_\_\_\_\_ 19\_\_\_\_  
 Drilling was completed \_\_\_\_\_ 19\_\_\_\_

(Plat of 640 acres)

Elevation at top of casing in feet above sea level \_\_\_\_\_ Total depth of well \_\_\_\_\_  
 State whether well is shallow or artesian \_\_\_\_\_ Depth to water upon completion \_\_\_\_\_

## Section 2

## PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1				
2				
3				
4				
5				

1961 JUN 28 AM 8:49  
 STATE ENGINEER OFFICE  
 SANTA FE, N.M.

## Section 3

## RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To

## Section 4

## RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

## Section 5

## PLUGGING RECORD

Name of Plugging Contractor Abbott Brothers License No. WD-46  
 Street and Number Box 637 City Hobbs State New Mexico  
 Tons of Clay used \_\_\_\_\_ Tons of Roughage used \_\_\_\_\_ Type of roughage \_\_\_\_\_  
 Plugging method used Wet conc. plug over rubble fill Date Plugged June 9 19 61  
 Plugging approved by: \_\_\_\_\_ Cement Plugs were placed as follows:

FOR USE OF STATE ENGINEER ONLY  
 Date Received 11:08 AM JUN 22 1961  
 File No. L-4633 Use O.W.D. Location No. 12.35.33.428

No.	Depth of Plug		No. of Sacks Used
	From	To	
1	3	6	4



## LOG OF WELL

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller



## APPENDIX C

### Photographic Log

---



## Photographic Log

Maverick Natural Resources, LLC

EVGSAU Sat 6 Mobile Tester

NAPP2304744550



Photograph 1

Date: 2/8/2023

Description Soil staining in release footprint

View: Southeast



Photograph 2

Date: 2/8/2023

Description: Soil staining in release footprint

View: Southwest



Photograph 3

Date: 11/27/2023

Description Excavation activities

View: Northeast



Photograph 4

Date: 11/27/2023

Description: Final excavation extent

View: North



## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

---



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

14

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 2/20/2023 4:42:55 PM

## JOB DESCRIPTION

EVGSAU Sat 6 Mobile Tester  
SDG NUMBER Lea County NM

## JOB NUMBER

890-4095-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## 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



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Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Laboratory Job ID: 890-4095-1  
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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.
▫	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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

**Job ID: 890-4095-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-4095-1****Receipt**

The samples were received on 2/13/2023 3:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.7°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4095-1), SS02 (890-4095-2) and SS03 (890-4095-3).

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46469 and analytical batch 880-46483 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: SS02 (890-4095-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-4095-1), SS02 (890-4095-2) and SS03 (890-4095-3). 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**

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-4095-1), SS02 (890-4095-2) and SS03 (890-4095-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46409 and analytical batch 880-46479 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Client Sample ID: SS01

Lab Sample ID: 890-4095-1

Date Collected: 02/08/23 11:30

Matrix: Solid

Date Received: 02/13/23 15:02

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0990	U	0.0990	mg/Kg		02/14/23 14:50	02/16/23 04:41	50
Toluene	1.83		0.0990	mg/Kg		02/14/23 14:50	02/16/23 04:41	50
Ethylbenzene	8.96		0.0990	mg/Kg		02/14/23 14:50	02/16/23 04:41	50
m-Xylene & p-Xylene	9.24		0.198	mg/Kg		02/14/23 14:50	02/16/23 04:41	50
o-Xylene	4.51		0.0990	mg/Kg		02/14/23 14:50	02/16/23 04:41	50
Xylenes, Total	13.8		0.198	mg/Kg		02/14/23 14:50	02/16/23 04:41	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	272	S1+	70 - 130	02/14/23 14:50	02/16/23 04:41	50
1,4-Difluorobenzene (Surr)	94		70 - 130	02/14/23 14:50	02/16/23 04:41	50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	24.5		0.198	mg/Kg			02/16/23 09:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	23900		500	mg/Kg			02/19/23 12:25	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	1110		500	mg/Kg		02/15/23 11:56	02/17/23 04:21	10
Diesel Range Organics (Over C10-C28)	20000	*1	500	mg/Kg		02/15/23 11:56	02/17/23 04:21	10
Oil Range Organics (Over C28-C36)	2810		500	mg/Kg		02/15/23 11:56	02/17/23 04:21	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	237	S1+	70 - 130	02/15/23 11:56	02/17/23 04:21	10
o-Terphenyl	413	S1+	70 - 130	02/15/23 11:56	02/17/23 04:21	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6190		49.8	mg/Kg			02/16/23 21:34	10

Client Sample ID: SS02

Lab Sample ID: 890-4095-2

Date Collected: 02/08/23 11:35

Matrix: Solid

Date Received: 02/13/23 15:02

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0994	U	0.0994	mg/Kg		02/14/23 14:50	02/16/23 05:02	50
Toluene	6.95		0.0994	mg/Kg		02/14/23 14:50	02/16/23 05:02	50
Ethylbenzene	26.5		0.396	mg/Kg		02/15/23 16:11	02/16/23 19:35	200
m-Xylene & p-Xylene	33.0		0.199	mg/Kg		02/14/23 14:50	02/16/23 05:02	50
o-Xylene	15.0		0.0994	mg/Kg		02/14/23 14:50	02/16/23 05:02	50
Xylenes, Total	48.0		0.199	mg/Kg		02/14/23 14:50	02/16/23 05:02	50

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## Client Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Client Sample ID: SS02

Lab Sample ID: 890-4095-2

Date Collected: 02/08/23 11:35

Matrix: Solid

Date Received: 02/13/23 15:02

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	469	S1+	70 - 130	02/14/23 14:50	02/16/23 05:02	50
1,4-Difluorobenzene (Surr)	79		70 - 130	02/14/23 14:50	02/16/23 05:02	50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	81.5		0.396	mg/Kg			02/16/23 09:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	20300		499	mg/Kg			02/19/23 12:25	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	736		499	mg/Kg		02/15/23 11:56	02/17/23 04:44	10
Diesel Range Organics (Over C10-C28)	17300	*1	499	mg/Kg		02/15/23 11:56	02/17/23 04:44	10
Oil Range Organics (Over C28-C36)	2250		499	mg/Kg		02/15/23 11:56	02/17/23 04:44	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130			02/15/23 11:56	02/17/23 04:44	10
o-Terphenyl	351	S1+	70 - 130			02/15/23 11:56	02/17/23 04:44	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4700		50.0	mg/Kg			02/16/23 21:38	10

Client Sample ID: SS03

Lab Sample ID: 890-4095-3

Date Collected: 02/08/23 11:40

Matrix: Solid

Date Received: 02/13/23 15:02

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.101	U	0.101	mg/Kg		02/14/23 14:50	02/16/23 05:22	50
Toluene	1.93		0.101	mg/Kg		02/14/23 14:50	02/16/23 05:22	50
Ethylbenzene	10.5		0.101	mg/Kg		02/14/23 14:50	02/16/23 05:22	50
m-Xylene & p-Xylene	10.4		0.201	mg/Kg		02/14/23 14:50	02/16/23 05:22	50
o-Xylene	4.87		0.101	mg/Kg		02/14/23 14:50	02/16/23 05:22	50
Xylenes, Total	15.3		0.201	mg/Kg		02/14/23 14:50	02/16/23 05:22	50
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	233	S1+	70 - 130			02/14/23 14:50	02/16/23 05:22	50
1,4-Difluorobenzene (Surr)	92		70 - 130			02/14/23 14:50	02/16/23 05:22	50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	27.7		0.201	mg/Kg			02/16/23 09:39	1

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Client Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Client Sample ID: SS03  
Date Collected: 02/08/23 11:40  
Date Received: 02/13/23 15:02  
Sample Depth: 0.5

Lab Sample ID: 890-4095-3  
Matrix: Solid

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	9890		250	mg/Kg			02/19/23 12:25	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	308		250	mg/Kg		02/15/23 11:56	02/17/23 05:06	5	
Diesel Range Organics (Over C10-C28)	8480	*1	250	mg/Kg		02/15/23 11:56	02/17/23 05:06	5	
Oil Range Organics (Over C28-C36)	1100		250	mg/Kg		02/15/23 11:56	02/17/23 05:06	5	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	95		70 - 130			02/15/23 11:56	02/17/23 05:06	5	
o-Terphenyl	175	S1+	70 - 130			02/15/23 11:56	02/17/23 05:06	5	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	7060		49.5	mg/Kg			02/16/23 21:43	10	



## Surrogate Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea 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 (70-130)	DFBZ1 (70-130)
880-24811-A-1-D MS	Matrix Spike	109	94
880-24811-A-1-E MSD	Matrix Spike Duplicate	92	85
890-4095-1	SS01	272 S1+	94
890-4095-2	SS02	469 S1+	79
890-4095-3	SS03	233 S1+	92
890-4105-A-1-A MS	Matrix Spike	112	104
890-4105-A-1-B MSD	Matrix Spike Duplicate	114	109
LCS 880-46330/1-A	Lab Control Sample	112	100
LCS 880-46469/1-A	Lab Control Sample	105	107
LCSD 880-46330/2-A	Lab Control Sample Dup	114	109
LCSD 880-46469/2-A	Lab Control Sample Dup	106	107
MB 880-46300/5-A	Method Blank	77	92
MB 880-46330/5-A	Method Blank	79	90
MB 880-46469/5-A	Method Blank	78	91
<b>Surrogate Legend</b>			
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 (70-130)	OTPH1 (70-130)
880-24624-A-7-D MS	Matrix Spike	85	91
880-24624-A-7-E MSD	Matrix Spike Duplicate	99	107
890-4095-1	SS01	237 S1+	413 S1+
890-4095-2	SS02	135 S1+	351 S1+
890-4095-3	SS03	95	175 S1+
LCS 880-46409/2-A	Lab Control Sample	98	113
LCSD 880-46409/3-A	Lab Control Sample Dup	85	99
MB 880-46409/1-A	Method Blank	85	108
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46300/5-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 46358					Prep Batch: 46300				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		02/14/23 11:24	02/15/23 10:54	1	
Toluene	<0.00200	U	0.00200	mg/Kg		02/14/23 11:24	02/15/23 10:54	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/14/23 11:24	02/15/23 10:54	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/14/23 11:24	02/15/23 10:54	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/14/23 11:24	02/15/23 10:54	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/14/23 11:24	02/15/23 10:54	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	77		70 - 130			02/14/23 11:24	02/15/23 10:54	1	
1,4-Difluorobenzene (Surr)	92		70 - 130			02/14/23 11:24	02/15/23 10:54	1	

Lab Sample ID: MB 880-46330/5-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 46358						Prep Batch: 46330			
	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		02/14/23 14:50	02/15/23 21:30		1
Toluene	<0.00200	U	0.00200	mg/Kg		02/14/23 14:50	02/15/23 21:30		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/14/23 14:50	02/15/23 21:30		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/14/23 14:50	02/15/23 21:30		1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/14/23 14:50	02/15/23 21:30		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/14/23 14:50	02/15/23 21:30		1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	79		70 - 130			02/14/23 14:50	02/15/23 21:30		1
1,4-Difluorobenzene (Surr)	90		70 - 130			02/14/23 14:50	02/15/23 21:30		1

Lab Sample ID: LCS 880-46330/1-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 46358					Prep Batch: 46330				
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec		
							Limits		
Benzene	0.100	0.1083		mg/Kg		108	70 - 130		
Toluene	0.100	0.1038		mg/Kg		104	70 - 130		
Ethylbenzene	0.100	0.1058		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene	0.200	0.2227		mg/Kg		111	70 - 130		
o-Xylene	0.100	0.1126		mg/Kg		113	70 - 130		
Surrogate	LCS	LCS	Limits						
	%Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	112		70 - 130						
1,4-Difluorobenzene (Surr)	100		70 - 130						

Lab Sample ID: LCSD 880-46330/2-A						Client Sample ID: Lab Control Sample Dup			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 46358						Prep Batch: 46330			
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1045		mg/Kg		104	70 - 130	4	35

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## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-46330/2-A

Matrix: Solid

Analysis Batch: 46358

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46330

Analyte	Spike		LCSD		Unit	D	%Rec	%Rec		RPD
	Added	Result	Qualifier	Limit				Limits	RPD	
Toluene	0.100	0.1046			mg/Kg		105	70 - 130	1	35
Ethylbenzene	0.100	0.1105			mg/Kg		111	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2331			mg/Kg		117	70 - 130	5	35
o-Xylene	0.100	0.1186			mg/Kg		119	70 - 130	5	35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 890-4105-A-1-A MS

Matrix: Solid

Analysis Batch: 46358

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46330

Analyte	Sample		Spike	MS		Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD
Benzene	<0.00202	U	0.100	0.09306		mg/Kg		92	70 - 130	
Toluene	0.00254		0.100	0.08782		mg/Kg		85	70 - 130	
Ethylbenzene	<0.00202	U	0.100	0.09056		mg/Kg		90	70 - 130	
m-Xylene & p-Xylene	0.00622		0.201	0.1922		mg/Kg		93	70 - 130	
o-Xylene	<0.00202	U	0.100	0.09585		mg/Kg		94	70 - 130	

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

Lab Sample ID: 890-4105-A-1-B MSD

Matrix: Solid

Analysis Batch: 46358

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46330

Analyte	Sample		Spike	MSD		Unit	D	%Rec	%Rec		RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	
Benzene	<0.00202	U	0.0990	0.09725		mg/Kg		97	70 - 130	4	35
Toluene	0.00254		0.0990	0.09032		mg/Kg		89	70 - 130	3	35
Ethylbenzene	<0.00202	U	0.0990	0.09189		mg/Kg		93	70 - 130	1	35
m-Xylene & p-Xylene	0.00622		0.198	0.1949		mg/Kg		95	70 - 130	1	35
o-Xylene	<0.00202	U	0.0990	0.09513		mg/Kg		94	70 - 130	1	35

Surrogate	MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: MB 880-46469/5-A

Matrix: Solid

Analysis Batch: 46483

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46469

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/23 16:11	02/16/23 11:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/23 16:11	02/16/23 11:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/23 16:11	02/16/23 11:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/23 16:11	02/16/23 11:46	1

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QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

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

**Lab Sample ID: MB 880-46469/5-A**  
**Matrix: Solid**  
**Analysis Batch: 46483**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 46469**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/23 16:11	02/16/23 11:46	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/23 16:11	02/16/23 11:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	02/15/23 16:11	02/16/23 11:46	1
1,4-Difluorobenzene (Surr)	91		70 - 130	02/15/23 16:11	02/16/23 11:46	1

**Lab Sample ID: LCS 880-46469/1-A**  
**Matrix: Solid**  
**Analysis Batch: 46483**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 46469**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1288		mg/Kg		129	70 - 130
Toluene	0.100	0.1150		mg/Kg		115	70 - 130
Ethylbenzene	0.100	0.1162		mg/Kg		116	70 - 130
m-Xylene & p-Xylene	0.200	0.2450		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1228		mg/Kg		123	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

**Lab Sample ID: LCSD 880-46469/2-A**  
**Matrix: Solid**  
**Analysis Batch: 46483**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 46469**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1225		mg/Kg		122	70 - 130	5	35
Toluene	0.100	0.1101		mg/Kg		110	70 - 130	4	35
Ethylbenzene	0.100	0.1099		mg/Kg		110	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2312		mg/Kg		116	70 - 130	6	35
o-Xylene	0.100	0.1155		mg/Kg		115	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

**Lab Sample ID: 880-24811-A-1-D MS**  
**Matrix: Solid**  
**Analysis Batch: 46483**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 46469**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.08001		mg/Kg		79	70 - 130
Toluene	<0.00202	U	0.101	0.07885		mg/Kg		78	70 - 130
Ethylbenzene	0.0872	F1	0.101	0.1216	F1	mg/Kg		34	70 - 130
m-Xylene & p-Xylene	0.285	F1	0.202	0.3421	F1	mg/Kg		28	70 - 130
o-Xylene	0.0839	F1	0.101	0.1298	F1	mg/Kg		46	70 - 130

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QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

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

Lab Sample ID: 880-24811-A-1-D MS  
Matrix: Solid  
Analysis Batch: 46483

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 46469

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-24811-A-1-E MSD  
Matrix: Solid  
Analysis Batch: 46483

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 46469

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0996	0.08370		mg/Kg		84	70 - 130	5	35
Toluene	<0.00202	U	0.0996	0.07632		mg/Kg		76	70 - 130	3	35
Ethylbenzene	0.0872	F1	0.0996	0.1221	F1	mg/Kg		35	70 - 130	0	35
m-Xylene & p-Xylene	0.285	F1	0.199	0.3245	F1	mg/Kg		20	70 - 130	5	35
o-Xylene	0.0839	F1	0.0996	0.1229	F1	mg/Kg		39	70 - 130	5	35
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	92		70 - 130								
1,4-Difluorobenzene (Surr)	85		70 - 130								

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

Lab Sample ID: MB 880-46409/1-A  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 46409

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			02/15/23 11:56	02/16/23 19:48	1
o-Terphenyl	108		70 - 130			02/15/23 11:56	02/16/23 19:48	1

Lab Sample ID: LCS 880-46409/2-A  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 46409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		104	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1061		mg/Kg		106	70 - 130	
Surrogate	%Recovery	Qualifier	Limits					
1-Chlorooctane	98		70 - 130					
o-Terphenyl	113		70 - 130					

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## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-46409/3-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.1		mg/Kg		89	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	1000	849.0	*1	mg/Kg		85	70 - 130	22	20
		LCSD %Recovery	LCSD Qualifier						
Surrogate			Limits						
1-Chlorooctane		85	70 - 130						
o-Terphenyl		99	70 - 130						

Lab Sample ID: 880-24624-A-7-D MS

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1023		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	940.4		mg/Kg		92	70 - 130		
		MS %Recovery	MS Qualifier								
Surrogate			Limits								
1-Chlorooctane		85	70 - 130								
o-Terphenyl		91	70 - 130								

Lab Sample ID: 880-24624-A-7-E MSD

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1044		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	1103		mg/Kg		109	70 - 130	16	20
		MSD %Recovery	MSD Qualifier								
Surrogate			Limits								
1-Chlorooctane		99	70 - 130								
o-Terphenyl		107	70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46459/1-A

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/16/23 21:05	1

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QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-46459/2-A

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	238.5		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-46459/3-A

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: Lab Control Sample Duplicate

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	261.8		mg/Kg		105	90 - 110	9	20

Lab Sample ID: 890-4094-A-1-E MS

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	11.1		251	262.5		mg/Kg		100	90 - 110		

Lab Sample ID: 890-4094-A-1-F MSD

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11.1		251	267.7		mg/Kg		102	90 - 110	2	20

## QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

## GC VOA

## Prep Batch: 46300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46300/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 46330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Total/NA	Solid	5035	
890-4095-2	SS02	Total/NA	Solid	5035	
890-4095-3	SS03	Total/NA	Solid	5035	
MB 880-46330/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46330/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46330/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4105-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-4105-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 46358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Total/NA	Solid	8021B	46330
890-4095-2	SS02	Total/NA	Solid	8021B	46330
890-4095-3	SS03	Total/NA	Solid	8021B	46330
MB 880-46300/5-A	Method Blank	Total/NA	Solid	8021B	46300
MB 880-46330/5-A	Method Blank	Total/NA	Solid	8021B	46330
LCS 880-46330/1-A	Lab Control Sample	Total/NA	Solid	8021B	46330
LCSD 880-46330/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46330
890-4105-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	46330
890-4105-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46330

## Prep Batch: 46469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-2	SS02	Total/NA	Solid	5035	
MB 880-46469/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46469/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46469/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24811-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-24811-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 46483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-2	SS02	Total/NA	Solid	8021B	46469
MB 880-46469/5-A	Method Blank	Total/NA	Solid	8021B	46469
LCS 880-46469/1-A	Lab Control Sample	Total/NA	Solid	8021B	46469
LCSD 880-46469/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46469
880-24811-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	46469
880-24811-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46469

## Analysis Batch: 46506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Total/NA	Solid	Total BTEX	
890-4095-2	SS02	Total/NA	Solid	Total BTEX	
890-4095-3	SS03	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

GC Semi VOA

Prep Batch: 46409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Total/NA	Solid	8015NM Prep	
890-4095-2	SS02	Total/NA	Solid	8015NM Prep	
890-4095-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Total/NA	Solid	8015B NM	46409
890-4095-2	SS02	Total/NA	Solid	8015B NM	46409
890-4095-3	SS03	Total/NA	Solid	8015B NM	46409
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015B NM	46409
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46409
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46409
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	46409
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46409

Analysis Batch: 46671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Total/NA	Solid	8015 NM	
890-4095-2	SS02	Total/NA	Solid	8015 NM	
890-4095-3	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Soluble	Solid	DI Leach	
890-4095-2	SS02	Soluble	Solid	DI Leach	
890-4095-3	SS03	Soluble	Solid	DI Leach	
MB 880-46459/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4094-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4094-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4095-1	SS01	Soluble	Solid	300.0	46459
890-4095-2	SS02	Soluble	Solid	300.0	46459
890-4095-3	SS03	Soluble	Solid	300.0	46459
MB 880-46459/1-A	Method Blank	Soluble	Solid	300.0	46459
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	300.0	46459
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46459
890-4094-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	46459
890-4094-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46459

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Lab Chronicle

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Client Sample ID: SS01

Date Collected: 02/08/23 11:30

Date Received: 02/13/23 15:02

Lab Sample ID: 890-4095-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	46330	02/14/23 14:50	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	46358	02/16/23 04:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46506	02/16/23 09:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46671	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	46479	02/17/23 04:21	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46459	02/15/23 15:35	KS	EET MID
Soluble	Analysis	300.0		10			46551	02/16/23 21:34	CH	EET MID

Client Sample ID: SS02

Date Collected: 02/08/23 11:35

Date Received: 02/13/23 15:02

Lab Sample ID: 890-4095-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46330	02/14/23 14:50	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	46358	02/16/23 05:02	MNR	EET MID
Total/NA	Prep	5035			5.05 g	5 mL	46469	02/15/23 16:11	MNR	EET MID
Total/NA	Analysis	8021B		200	5 mL	5 mL	46483	02/16/23 19:35	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46506	02/16/23 09:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46671	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	46479	02/17/23 04:44	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46459	02/15/23 15:35	KS	EET MID
Soluble	Analysis	300.0		10			46551	02/16/23 21:38	CH	EET MID

Client Sample ID: SS03

Date Collected: 02/08/23 11:40

Date Received: 02/13/23 15:02

Lab Sample ID: 890-4095-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	46330	02/14/23 14:50	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	46358	02/16/23 05:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46506	02/16/23 09:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46671	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	46479	02/17/23 05:06	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46459	02/15/23 15:35	KS	EET MID
Soluble	Analysis	300.0		10			46551	02/16/23 21:43	CH	EET MID

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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea 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
Total BTEX		Solid	Total BTEX



Method Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea 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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4095-1  
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4095-1	SS01	Solid	02/08/23 11:30	02/13/23 15:02	0.5
890-4095-2	SS02	Solid	02/08/23 11:35	02/13/23 15:02	0.5
890-4095-3	SS03	Solid	02/08/23 11:40	02/13/23 15:02	0.5

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**Environment Testing**  
**Xenoco**

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

## Chain of Custody

**Work Order No:**

Page 1 of 1

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, dnikanorov@ensolum.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> Adapt <input type="checkbox"/> Other:	

Project Name:		EVGSAU Sat 6 Mobile Tester		Turn Around						Pres. Code		ANALYSIS REQUEST										Preservative Codes									
Project Number:		03D2057072		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush																		None: NO DI Water: H <sub>2</sub> O									
Project Location:		Lee County, NM		Due Date:																		Cool: Cool MeOH: Me									
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm																		HCL: HC HNO <sub>3</sub> : HN NaOH: Na									
PO #:																						H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>									
SAMPLE RECEIPT		Temp Blank:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No														H <sub>3</sub> PO <sub>4</sub> : HP									
Samples Received Inact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:				Correction Factor:		11N-007												NaHSO <sub>4</sub> : NABIS									
Cooler Custody Seals:		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Temperature Reading:				Corrected Temperature:		-0.9												Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>									
Sample Custody Seals:		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Temperature Reading:				Corrected Temperature:		5.9												Zn Acetate+NaOH: Zn									
Total Containers:										5.7												NaOH+Ascorbic Acid: SACP									

[illegible]

Total	200.7 / 6010	200.8 / 6020:
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Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr H Sn U V Zn  
 TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg. 1631/245.1/7470/7471

Notice: Signature of this document (self-liquidation of samples constitutes a valid purchase order from client company to Eurofins Xeno), its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	9.13.23 1502			
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4095-1

SDG Number: Lea County NM

Login Number: 4095

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	N/A	Refer to Job Narrative for details.
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	



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 2/20/2023 2:43:12 PM

## JOB DESCRIPTION

EVGSAU Sat 6 Mobile Tester  
SDG NUMBER Lea County NM

## JOB NUMBER

890-4096-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## 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  
2/20/2023 2:43:12 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440



Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Laboratory Job ID: 890-4096-1  
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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.
▫	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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

Job ID: 890-4096-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative  
890-4096-1

Receipt

The sample was received on 2/13/2023 3:02 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 5.7°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-4096-1).

GC VOA

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

GC Semi VOA

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46409 and analytical batch 880-46479 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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.

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## Client Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

Client Sample ID: SS04

Lab Sample ID: 890-4096-1

Date Collected: 02/08/23 12:45

Matrix: Solid

Date Received: 02/13/23 15:02

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/17/23 08:51	02/17/23 16:58	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/17/23 08:51	02/17/23 16:58	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/17/23 08:51	02/17/23 16:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/17/23 08:51	02/17/23 16:58	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/17/23 08:51	02/17/23 16:58	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/17/23 08:51	02/17/23 16:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	02/17/23 08:51	02/17/23 16:58	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/17/23 08:51	02/17/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/20/23 13:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/19/23 12:25	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	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/17/23 04:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/15/23 11:56	02/17/23 04:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/17/23 04:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	02/15/23 11:56	02/17/23 04:00	1
o-Terphenyl	104		70 - 130	02/15/23 11:56	02/17/23 04:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.7		5.01	mg/Kg			02/16/23 21:48	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea 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 (70-130)	DFBZ1 (70-130)
880-24598-A-1-F MS	Matrix Spike	96	98
880-24598-A-1-G MSD	Matrix Spike Duplicate	97	98
890-4096-1	SS04	122	103
LCS 880-46575/1-A	Lab Control Sample	100	97
LCSD 880-46575/2-A	Lab Control Sample Dup	107	93
MB 880-46575/5-A	Method Blank	98	91
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 (70-130)	OTPH1 (70-130)
880-24624-A-7-D MS	Matrix Spike	85	91
880-24624-A-7-E MSD	Matrix Spike Duplicate	99	107
890-4096-1	SS04	93	104
LCS 880-46409/2-A	Lab Control Sample	98	113
LCSD 880-46409/3-A	Lab Control Sample Dup	85	99
MB 880-46409/1-A	Method Blank	85	108
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

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

Lab Sample ID: MB 880-46575/5-A

Matrix: Solid

Analysis Batch: 46569

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46575

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/17/23 08:51	02/17/23 15:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/17/23 08:51	02/17/23 15:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/17/23 08:51	02/17/23 15:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/17/23 08:51	02/17/23 15:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/17/23 08:51	02/17/23 15:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/17/23 08:51	02/17/23 15:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	02/17/23 08:51	02/17/23 15:36	1
1,4-Difluorobenzene (Surr)	91		70 - 130	02/17/23 08:51	02/17/23 15:36	1

Lab Sample ID: LCS 880-46575/1-A

Matrix: Solid

Analysis Batch: 46569

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09721		mg/Kg		97	70 - 130
Toluene	0.100	0.1009		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.09383		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1812		mg/Kg		91	70 - 130
o-Xylene	0.100	0.09381		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-46575/2-A

Matrix: Solid

Analysis Batch: 46569

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46575

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1111		mg/Kg		111	70 - 130	13	35
Toluene	0.100	0.1198		mg/Kg		120	70 - 130	17	35
Ethylbenzene	0.100	0.1137		mg/Kg		114	70 - 130	19	35
m-Xylene & p-Xylene	0.200	0.2200		mg/Kg		110	70 - 130	19	35
o-Xylene	0.100	0.1124		mg/Kg		112	70 - 130	18	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 880-24598-A-1-F MS

Matrix: Solid

Analysis Batch: 46569

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46575

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.09359		mg/Kg		92	70 - 130
Toluene	<0.00201	U	0.101	0.09616		mg/Kg		95	70 - 130

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QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

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

Lab Sample ID: 880-24598-A-1-F MS  
Matrix: Solid  
Analysis Batch: 46569

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 46575

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.08569		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1646		mg/Kg		82	70 - 130
o-Xylene	<0.00201	U	0.101	0.08652		mg/Kg		85	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	96		70 - 130						
1,4-Difluorobenzene (Surr)	98		70 - 130						

Lab Sample ID: 880-24598-A-1-G MSD  
Matrix: Solid  
Analysis Batch: 46569

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 46575

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.1038		mg/Kg		103	70 - 130	10	35
Toluene	<0.00201	U	0.0996	0.1047		mg/Kg		105	70 - 130	9	35
Ethylbenzene	<0.00201	U	0.0996	0.09296		mg/Kg		93	70 - 130	8	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1791		mg/Kg		90	70 - 130	8	35
o-Xylene	<0.00201	U	0.0996	0.09331		mg/Kg		93	70 - 130	8	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	97		70 - 130								
1,4-Difluorobenzene (Surr)	98		70 - 130								

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

Lab Sample ID: MB 880-46409/1-A  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 46409

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	85		70 - 130	02/15/23 11:56	02/16/23 19:48	1		
o-Terphenyl	108		70 - 130	02/15/23 11:56	02/16/23 19:48	1		

Lab Sample ID: LCS 880-46409/2-A  
Matrix: Solid  
Analysis Batch: 46479

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 46409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1061		mg/Kg		106	70 - 130

Eurofins Carlsbad

## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

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

Lab Sample ID: LCS 880-46409/2-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46409

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-46409/3-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.1		mg/Kg		89	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	1000	849.0	*1	mg/Kg		85	70 - 130	22	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-24624-A-7-D MS

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1023		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	940.4		mg/Kg		92	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 880-24624-A-7-E MSD

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1044		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	1103		mg/Kg		109	70 - 130	16	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	107		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46459/1-A Matrix: Solid Analysis Batch: 46551										Client Sample ID: Method Blank Prep Type: Soluble	
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	<5.00	U	5.00	mg/Kg			02/16/23 21:05	1			

Lab Sample ID: LCS 880-46459/2-A Matrix: Solid Analysis Batch: 46551										Client Sample ID: Lab Control Sample Prep Type: Soluble	
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	238.5		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-46459/3-A Matrix: Solid Analysis Batch: 46551										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
Chloride			250	261.8		mg/Kg		105	90 - 110	9	20

Lab Sample ID: 890-4094-A-1-E MS Matrix: Solid Analysis Batch: 46551										Client Sample ID: Matrix Spike Prep Type: Soluble	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	11.1		251	262.5		mg/Kg		100	90 - 110		

Lab Sample ID: 890-4094-A-1-F MSD Matrix: Solid Analysis Batch: 46551										Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11.1		251	267.7		mg/Kg		102	90 - 110	2	20

## QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

## GC VOA

## Analysis Batch: 46569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Total/NA	Solid	8021B	46575
MB 880-46575/5-A	Method Blank	Total/NA	Solid	8021B	46575
LCS 880-46575/1-A	Lab Control Sample	Total/NA	Solid	8021B	46575
LCSD 880-46575/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46575
880-24598-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	46575
880-24598-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46575

## Prep Batch: 46575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Total/NA	Solid	5035	
MB 880-46575/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46575/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46575/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24598-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
880-24598-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 46725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 46409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 46479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Total/NA	Solid	8015B NM	46409
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015B NM	46409
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46409
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46409
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	46409
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46409

## Analysis Batch: 46670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 46459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Soluble	Solid	DI Leach	
MB 880-46459/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 46459 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4094-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4096-1	SS04	Soluble	Solid	300.0	46459
MB 880-46459/1-A	Method Blank	Soluble	Solid	300.0	46459
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	300.0	46459
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46459
890-4094-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	46459
890-4094-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46459

Lab Chronicle

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

Client Sample ID: SS04

Lab Sample ID: 890-4096-1

Date Collected: 02/08/23 12:45

Matrix: Solid

Date Received: 02/13/23 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46575	02/17/23 08:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46569	02/17/23 16:58	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46725	02/20/23 13:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46670	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 04:00	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	46459	02/15/23 15:35	KS	EET MID
Soluble	Analysis	300.0		1			46551	02/16/23 21:48	CH	EET MID

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



Accreditation/Certification Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea 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
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
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- 13
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Method Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea 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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4096-1  
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4096-1	SS04	Solid	02/08/23 12:45	02/13/23 15:02	0.5

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**Environment Testing  
Xenco**

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

## Chain of Custody

**Work Order No:** \_\_\_\_\_

www.xenco.com Page \_\_\_\_\_ of \_\_\_\_\_

Project Manager:	Kaeli Jennings	Bill to: (if different)	Kaeli Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, drikanorov@ensolum.com

**Work Order Comments**

**Program:** UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

**State of Project:**

**Reporting:** Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

**Deliverables:** EDD ☐ ADAPT ☐ Other: \_\_\_\_\_

Project Name:		EVGSAU Sat 6 Mobile Tester		Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes			
Project Number:		03D2057072		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush														None: NO			
Project Location:		Lea County, NM		Due Date:														Cool: Cool			
Samplers Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC			
PO #:																		H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>			
SAMPLE RECEIPT		Temp Blank:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												H <sub>3</sub> PO <sub>4</sub> : HP	
Samples Received Intact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:		Correction Factor:		Tm-ED1 -0.2												NaHSO <sub>4</sub> : NABIS	
Cooler Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		N/A		Temperature Reading:		5.4												Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
Sample Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		N/A		Corrected Temperature:		5.7												Zn Acetate+NaOH: Zn	
Total Containers:																				NaOH+Ascorbic Acid: SAPC	

[illegible][illegible]

**Notice:** Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xencro will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xencro. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xencro, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>DMW</i>	<i>Araceli</i>	2-13-23 1500			
3					
5					

Revised Date: 08/25/2020 Rev: 2020

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4096-1

SDG Number: Lea County NM

Login Number: 4096

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	N/A	Refer to Job Narrative for details.
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	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4096-1

SDG Number: Lea County NM

Login Number: 4096

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/15/23 12:16 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
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	



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 2/19/2023 12:47:40 PM

## JOB DESCRIPTION

EVGSAU Sat 6 Mobile Tester  
SDG NUMBER Lea County NM

## JOB NUMBER

890-4094-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

See page two for job notes and contact information.



# Eurofins Carlsbad

## 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  
2/19/2023 12:47:40 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Laboratory Job ID: 890-4094-1  
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

Job ID: 890-4094-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative  
890-4094-1

Receipt

The sample was received on 2/13/2023 3:02 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 5.7°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-4094-1).

GC VOA

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-46437 and analytical batch 880-46371. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS05 (890-4094-1) and (880-24648-A-1-C MSD). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46409 and analytical batch 880-46479 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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.

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## Client Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

Client Sample ID: SS05

Lab Sample ID: 890-4094-1

Date Collected: 02/08/23 12:50

Matrix: Solid

Date Received: 02/13/23 15:02

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 06:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 06:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 06:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/15/23 14:46	02/16/23 06:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 06:34	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/15/23 14:46	02/16/23 06:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68	S1-	70 - 130	02/15/23 14:46	02/16/23 06:34	1
1,4-Difluorobenzene (Surr)	86		70 - 130	02/15/23 14:46	02/16/23 06:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/16/23 10:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/19/23 12:25	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	<49.9	U	49.9	mg/Kg		02/15/23 11:56	02/17/23 03:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/15/23 11:56	02/17/23 03:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/15/23 11:56	02/17/23 03:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	02/15/23 11:56	02/17/23 03:37	1
o-Terphenyl	98		70 - 130	02/15/23 11:56	02/17/23 03:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.1		5.02	mg/Kg			02/16/23 21:19	1

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Surrogate Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea 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 (70-130)	DFBZ1 (70-130)
880-24332-A-1 MB	Method Blank	88	86
880-24648-A-1-B MS	Matrix Spike	104	94
880-24648-A-1-C MSD	Matrix Spike Duplicate	66 S1-	85
890-4094-1	SS05	68 S1-	86
LCS 880-46437/1-A	Lab Control Sample	100	95
LCSD 880-46437/2-A	Lab Control Sample Dup	111	95
MB 880-46437/5-A	Method Blank	98	88
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 (70-130)	OTPH1 (70-130)
880-24624-A-7-D MS	Matrix Spike	85	91
880-24624-A-7-E MSD	Matrix Spike Duplicate	99	107
890-4094-1	SS05	91	98
LCS 880-46409/2-A	Lab Control Sample	98	113
LCSD 880-46409/3-A	Lab Control Sample Dup	85	99
MB 880-46409/1-A	Method Blank	85	108
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: 880-24332-A-1 MB						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 46371									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg			02/15/23 18:50	1	
Toluene	<0.00200	U	0.00200	mg/Kg			02/15/23 18:50	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			02/15/23 18:50	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			02/15/23 18:50	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg			02/15/23 18:50	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			02/15/23 18:50	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	88		70 - 130				02/15/23 18:50	1	
1,4-Difluorobenzene (Surr)	86		70 - 130				02/15/23 18:50	1	

Lab Sample ID: MB 880-46437/5-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 46371						Prep Batch: 46437			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 02:15	1	
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 02:15	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 02:15	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/23 14:46	02/16/23 02:15	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/23 14:46	02/16/23 02:15	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/23 14:46	02/16/23 02:15	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		70 - 130			02/15/23 14:46	02/16/23 02:15	1	
1,4-Difluorobenzene (Surr)	88		70 - 130			02/15/23 14:46	02/16/23 02:15	1	

Lab Sample ID: LCS 880-46437/1-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 46371						Prep Batch: 46437			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	0.100	0.09855		mg/Kg		99	70 - 130		
Toluene	0.100	0.1014		mg/Kg		101	70 - 130		
Ethylbenzene	0.100	0.09828		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene	0.200	0.1950		mg/Kg		97	70 - 130		
o-Xylene	0.100	0.09407		mg/Kg		94	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	100		70 - 130						
1,4-Difluorobenzene (Surr)	95		70 - 130						

Lab Sample ID: LCSD 880-46437/2-A						Client Sample ID: Lab Control Sample Dup			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 46371						Prep Batch: 46437			
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.09235		mg/Kg		92	70 - 130	6	35

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## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-46437/2-A

Matrix: Solid

Analysis Batch: 46371

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46437

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Toluene	0.100	0.08620		mg/Kg		86	70 - 130		16	35
Ethylbenzene	0.100	0.09424		mg/Kg		94	70 - 130		4	35
m-Xylene & p-Xylene	0.200	0.1877		mg/Kg		94	70 - 130		4	35
o-Xylene	0.100	0.09030		mg/Kg		90	70 - 130		4	35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-24648-A-1-B MS

Matrix: Solid

Analysis Batch: 46371

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46437

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	
Benzene	<0.00199	U F1	0.100	0.08816		mg/Kg		88	70 - 130	
Toluene	<0.00199	U F1	0.100	0.09260		mg/Kg		92	70 - 130	
Ethylbenzene	<0.00199	U F1	0.100	0.09146		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1811		mg/Kg		90	70 - 130	
o-Xylene	<0.00199	U F1	0.100	0.08751		mg/Kg		87	70 - 130	

Surrogate	MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-24648-A-1-C MSD

Matrix: Solid

Analysis Batch: 46371

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46437

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits			
Benzene	<0.00199	U F1	0.101	<0.00202	U F1	mg/Kg		0	70 - 130		NC	35
Toluene	<0.00199	U F1	0.101	<0.00202	U F1	mg/Kg		0	70 - 130		NC	35
Ethylbenzene	<0.00199	U F1	0.101	<0.00202	U F1	mg/Kg		0	70 - 130		NC	35
m-Xylene & p-Xylene	<0.00398	U F1	0.202	<0.00403	U F1	mg/Kg		0	70 - 130		NC	35
o-Xylene	<0.00199	U F1	0.101	<0.00202	U F1	mg/Kg		0	70 - 130		NC	35

Surrogate	MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	66	S1-	70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

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

Lab Sample ID: MB 880-46409/1-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46409

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1

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## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

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

Lab Sample ID: MB 880-46409/1-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46409

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/23 11:56	02/16/23 19:48	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	85		70 - 130			02/15/23 11:56	02/16/23 19:48	1
o-Terphenyl	108		70 - 130			02/15/23 11:56	02/16/23 19:48	1

Lab Sample ID: LCS 880-46409/2-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		104	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1061		mg/Kg		106	70 - 130	
Surrogate		LCS	LCS					
		%Recovery	Qualifier					
1-Chlorooctane		98					70 - 130	
o-Terphenyl		113					70 - 130	

Lab Sample ID: LCSD 880-46409/3-A

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.1		mg/Kg		89	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	1000	849.0	*1	mg/Kg		85	70 - 130	22	20
Surrogate		LCSD	LCSD						
		%Recovery	Qualifier						
1-Chlorooctane		85					70 - 130		
o-Terphenyl		99					70 - 130		

Lab Sample ID: 880-24624-A-7-D MS

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier								
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1023		mg/Kg		98	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	940.4		mg/Kg		92	70 - 130	
Surrogate		MS	MS							
		%Recovery	Qualifier							
1-Chlorooctane		85							70 - 130	
o-Terphenyl		91							70 - 130	

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## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

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

Lab Sample ID: 880-24624-A-7-E MSD

Matrix: Solid

Analysis Batch: 46479

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46409

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1044		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	1103		mg/Kg		109	70 - 130	16	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	99		70 - 130								
o-Terphenyl	107		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46459/1-A

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/16/23 21:05	1

Lab Sample ID: LCS 880-46459/2-A

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	238.5		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-46459/3-A

Matrix: Solid

Analysis Batch: 46551

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
Chloride	250	261.8		mg/Kg		105	90 - 110	9	20

Lab Sample ID: 890-4094-1 MS

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: SS05

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	11.1		251	262.5		mg/Kg		100	90 - 110

Lab Sample ID: 890-4094-1 MSD

Matrix: Solid

Analysis Batch: 46551

Client Sample ID: SS05

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11.1		251	267.7		mg/Kg		102	90 - 110	2	20

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QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

GC VOA

Analysis Batch: 46371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Total/NA	Solid	8021B	46437
880-24332-A-1 MB	Method Blank	Total/NA	Solid	8021B	
MB 880-46437/5-A	Method Blank	Total/NA	Solid	8021B	46437
LCS 880-46437/1-A	Lab Control Sample	Total/NA	Solid	8021B	46437
LCSD 880-46437/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46437
880-24648-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46437
880-24648-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46437

Prep Batch: 46437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Total/NA	Solid	5035	
MB 880-46437/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46437/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46437/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24648-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-24648-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Total/NA	Solid	8015B NM	46409
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015B NM	46409
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46409
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46409
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	46409
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46409

Analysis Batch: 46669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Soluble	Solid	DI Leach	
MB 880-46459/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 46459 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4094-1 MS	SS05	Soluble	Solid	DI Leach	
890-4094-1 MSD	SS05	Soluble	Solid	DI Leach	

Analysis Batch: 46551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-1	SS05	Soluble	Solid	300.0	46459
MB 880-46459/1-A	Method Blank	Soluble	Solid	300.0	46459
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	300.0	46459
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46459
890-4094-1 MS	SS05	Soluble	Solid	300.0	46459
890-4094-1 MSD	SS05	Soluble	Solid	300.0	46459

Lab Chronicle

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

Client Sample ID: SS05

Lab Sample ID: 890-4094-1

Date Collected: 02/08/23 12:50

Matrix: Solid

Date Received: 02/13/23 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	46437	02/15/23 14:46	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46371	02/16/23 06:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46513	02/16/23 10:01	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46669	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 03:37	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46459	02/15/23 15:35	KS	EET MID
Soluble	Analysis	300.0		1			46551	02/16/23 21:19	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea 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
Total BTEX		Solid	Total BTEX

- 1
- 2
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- 12
- 13
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Method Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea 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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4094-1  
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4094-1	SS05	Solid	02/08/23 12:50	02/13/23 15:02	0.5

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Environment Testing  
Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

www.xenco.com Page \_\_\_\_\_ of \_\_\_\_\_

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, dnikanorov@ensolum.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	EVGSAU Sat 6 Mobile Tester	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03D2057072	Due Date:			
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Dmitry Nikanorov				
PO #:					
SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Well Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:			
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor:			
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Temperature Reading:			
Total Containers:		Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes
SS05	S	2/8/2023	12:50	0.5'	Grab	1	CHLORIDES (EPA: 300.0) TPH (8015) BTEX (8021)		None: NO Cool: Cool HCL: HC H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NASO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC
							Incident Number		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$95.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	2-13-23 1500			
3		4			
5		6			

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4094-1

SDG Number: Lea County NM

Login Number: 4094

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	N/A	Refer to Job Narrative for details.
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	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4094-1

SDG Number: Lea County NM

Login Number: 4094

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/15/23 12:16 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
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	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4095-1

SDG Number: Lea County NM

Login Number: 4095

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/15/23 12:16 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
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	



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 2/20/2023 2:58:12 PM

## JOB DESCRIPTION

EVGSAU Sat 6 Mobile Tester  
SDG NUMBER Lea County NM

## JOB NUMBER

890-4097-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220



# Eurofins Carlsbad

## 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  
2/20/2023 2:58:12 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Laboratory Job ID: 890-4097-1  
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

Job ID: 890-4097-1

Laboratory: Eurofins Carlsbad

Narrative	
Job Narrative 890-4097-1	

Receipt

The sample was received on 2/13/2023 3:02 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 5.7°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-4097-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46342 and analytical batch 880-46568 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.

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.

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## Client Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

Client Sample ID: SS06

Lab Sample ID: 890-4097-1

Date Collected: 02/08/23 12:55

Matrix: Solid

Date Received: 02/13/23 15:02

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/14/23 16:34	02/17/23 17:39	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/14/23 16:34	02/17/23 17:39	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/14/23 16:34	02/17/23 17:39	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/14/23 16:34	02/17/23 17:39	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/14/23 16:34	02/17/23 17:39	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/14/23 16:34	02/17/23 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	02/14/23 16:34	02/17/23 17:39	1
1,4-Difluorobenzene (Surr)	85		70 - 130	02/14/23 16:34	02/17/23 17:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/20/23 14:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/20/23 15:10	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	<49.9	U	49.9	mg/Kg		02/16/23 09:41	02/17/23 13:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/16/23 09:41	02/17/23 13:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/16/23 09:41	02/17/23 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	02/16/23 09:41	02/17/23 13:40	1
o-Terphenyl	105		70 - 130	02/16/23 09:41	02/17/23 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.63		5.01	mg/Kg			02/16/23 22:03	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea 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 (70-130)	DFBZ1 (70-130)
890-4089-A-1-B MS	Matrix Spike	126	114
890-4089-A-1-C MSD	Matrix Spike Duplicate	132 S1+	104
890-4097-1	SS06	105	85
LCS 880-46342/1-A	Lab Control Sample	109	105
LCSD 880-46342/2-A	Lab Control Sample Dup	116	103
MB 880-46342/5-A	Method Blank	76	96
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 (70-130)	OTPH1 (70-130)
890-4097-1	SS06	100	105
890-4100-A-1-D MS	Matrix Spike	113	110
890-4100-A-1-E MSD	Matrix Spike Duplicate	109	107
LCS 880-46507/2-A	Lab Control Sample	98	114
LCSD 880-46507/3-A	Lab Control Sample Dup	114	125
MB 880-46507/1-A	Method Blank	91	112
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

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

Lab Sample ID: MB 880-46342/5-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46342

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/14/23 16:34	02/17/23 14:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	02/14/23 16:34	02/17/23 14:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/14/23 16:34	02/17/23 14:09	1

Lab Sample ID: LCS 880-46342/1-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1214		mg/Kg		121	70 - 130
Toluene	0.100	0.1106		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1137		mg/Kg		114	70 - 130
m-Xylene & p-Xylene	0.200	0.2456		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1219		mg/Kg		122	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-46342/2-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	14	35
Toluene	0.100	0.1042		mg/Kg		104	70 - 130	6	35
Ethylbenzene	0.100	0.1073		mg/Kg		107	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2301		mg/Kg		115	70 - 130	6	35
o-Xylene	0.100	0.1157		mg/Kg		116	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-4089-A-1-B MS

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1 F2	0.100	0.1523	F1	mg/Kg		152	70 - 130
Toluene	<0.00202	U	0.100	0.09819		mg/Kg		98	70 - 130

Eurofins Carlsbad



QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

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

Lab Sample ID: 890-4089-A-1-B MS  
Matrix: Solid  
Analysis Batch: 46568

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.100	0.09453		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2043		mg/Kg		102	70 - 130
o-Xylene	<0.00202	U	0.100	0.1039		mg/Kg		104	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	126		70 - 130						
1,4-Difluorobenzene (Surr)	114		70 - 130						

Lab Sample ID: 890-4089-A-1-C MSD  
Matrix: Solid  
Analysis Batch: 46568

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0990	0.1032	F2	mg/Kg		104	70 - 130	38	35
Toluene	<0.00202	U	0.0990	0.09209		mg/Kg		93	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.0990	0.09634		mg/Kg		97	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.2071		mg/Kg		105	70 - 130	1	35
o-Xylene	<0.00202	U	0.0990	0.1053		mg/Kg		106	70 - 130	1	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	104		70 - 130								

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

Lab Sample ID: MB 880-46507/1-A  
Matrix: Solid  
Analysis Batch: 46558

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 46507

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/16/23 09:40	02/17/23 08:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/16/23 09:40	02/17/23 08:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/16/23 09:40	02/17/23 08:54	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	91		70 - 130	02/16/23 09:40	02/17/23 08:54	1		
o-Terphenyl	112		70 - 130	02/16/23 09:40	02/17/23 08:54	1		

Lab Sample ID: LCS 880-46507/2-A  
Matrix: Solid  
Analysis Batch: 46558

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 46507

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	860.8		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	994.1		mg/Kg		99	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

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

Lab Sample ID: LCS 880-46507/2-A  
Matrix: Solid  
Analysis Batch: 46558

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 46507

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: LCSD 880-46507/3-A  
Matrix: Solid  
Analysis Batch: 46558

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 46507

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	988.4		mg/Kg		99	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	1000	1078		mg/Kg		108	70 - 130	8	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	125		70 - 130

Lab Sample ID: 890-4100-A-1-D MS  
Matrix: Solid  
Analysis Batch: 46558

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 46507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	1059		mg/Kg		101	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	1114		mg/Kg		110	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-4100-A-1-E MSD  
Matrix: Solid  
Analysis Batch: 46558

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 46507

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	1047		mg/Kg		100	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	1079		mg/Kg		106	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	107		70 - 130

QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46459/1-A										Client Sample ID: Method Blank	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 46551											
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	<5.00	U	5.00	mg/Kg			02/16/23 21:05	1			
Lab Sample ID: LCS 880-46459/2-A										Client Sample ID: Lab Control Sample	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 46551											
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits				
Chloride	250	238.5		mg/Kg		95	90 - 110				
Lab Sample ID: LCSD 880-46459/3-A										Client Sample ID: Lab Control Sample Dup	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 46551											
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit		
Chloride	250	261.8		mg/Kg		105	90 - 110	9	20		
Lab Sample ID: 890-4094-A-1-E MS										Client Sample ID: Matrix Spike	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 46551											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	11.1		251	262.5		mg/Kg		100	90 - 110		
Lab Sample ID: 890-4094-A-1-F MSD										Client Sample ID: Matrix Spike Duplicate	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 46551											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11.1		251	267.7		mg/Kg		102	90 - 110	2	20

## QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

## GC VOA

## Prep Batch: 46342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Total/NA	Solid	5035	
MB 880-46342/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4089-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4089-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 46568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Total/NA	Solid	8021B	46342
MB 880-46342/5-A	Method Blank	Total/NA	Solid	8021B	46342
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	8021B	46342
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46342
890-4089-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46342
890-4089-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46342

## Analysis Batch: 46744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 46507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-46507/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46507/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46507/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4100-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4100-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 46558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Total/NA	Solid	8015B NM	46507
MB 880-46507/1-A	Method Blank	Total/NA	Solid	8015B NM	46507
LCS 880-46507/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46507
LCSD 880-46507/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46507
890-4100-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	46507
890-4100-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46507

## Analysis Batch: 46784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 46459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Soluble	Solid	DI Leach	
MB 880-46459/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 46459 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4094-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4094-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4097-1	SS06	Soluble	Solid	300.0	46459
MB 880-46459/1-A	Method Blank	Soluble	Solid	300.0	46459
LCS 880-46459/2-A	Lab Control Sample	Soluble	Solid	300.0	46459
LCSD 880-46459/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46459
890-4094-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	46459
890-4094-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46459

Lab Chronicle

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

Client Sample ID: SS06

Lab Sample ID: 890-4097-1

Date Collected: 02/08/23 12:55

Matrix: Solid

Date Received: 02/13/23 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 17:39	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46744	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46784	02/20/23 15:10	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46507	02/16/23 09:41	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46558	02/17/23 13:40	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	46459	02/15/23 15:35	KS	EET MID
Soluble	Analysis	300.0		1			46551	02/16/23 22:03	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea 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
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Method Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea 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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4097-1  
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4097-1	SS06	Solid	02/08/23 12:55	02/13/23 15:02	0.5

- 1
- 2
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- 14



**Environment Testing**  
**Xerco**

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

## Chain of Custody

**Work Order No.:**

www.xenco.com Page 1 of 1

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, dnikanorov@ensolum.com

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: \_\_\_\_\_

Project Name:		EVGSAU Sat 6 Mobile Tester		Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes			
Project Number:		03BD2057072		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush														None: NO			
Project Location:		Lea County, NM		Due Date:														Cool: Cool			
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC			
PO #:																		H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>			
SAMPLE RECEIPT		Temp Blank:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												H <sub>3</sub> PO <sub>4</sub> : HP	
Samples Received Intact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:		Correction Factor:		TAN-2007												NaHSO <sub>4</sub> : NABIS	
Cooler Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		N/A		Temperature Reading:		-0.2												Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
Sample Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		N/A		Corrected Temperature:		5.9												Zn Acetate+NaOH: Zn	
Total Containers:																				NaOH+Ascorbic Acid: SAPC	

[illegible]

Total	200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA			Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
			Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	2-13-23 1500			
2					
3					
4					
5					
6					

Swired Date: 08/25/2020 Baw 2020

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4097-1

SDG Number: Lea County NM

Login Number: 4097

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	N/A	Refer to Job Narrative for details.
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	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4097-1

SDG Number: Lea County NM

Login Number: 4097

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/15/23 12:16 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
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	



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 2/20/2023 2:49:21 PM

## JOB DESCRIPTION

EVGSAU Sat 6 Mobile Tester  
SDG NUMBER Lea County NM

## JOB NUMBER

890-4098-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

## Eurofins Carlsbad

### 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  
2/20/2023 2:49:21 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440



Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Laboratory Job ID: 890-4098-1  
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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.
¤	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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

Job ID: 890-4098-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-4098-1

Receipt

The sample was received on 2/13/2023 3:02 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 5.7°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS07 (890-4098-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46342 and analytical batch 880-46568 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.

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

GC Semi VOA

Method 8015MOD\_NM: The method blank for preparation batch 880-46509 and analytical batch 880-46560 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46509 and analytical batch 880-46560 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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.

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Client Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

Client Sample ID: SS07  
Date Collected: 02/08/23 13:00  
Date Received: 02/13/23 15:02  
Sample Depth: 0.5

Lab Sample ID: 890-4098-1  
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00202	U	0.00202	mg/Kg	-	02/14/23 16:34	02/17/23 18:00	1	
Toluene	<0.00202	U	0.00202	mg/Kg	-	02/14/23 16:34	02/17/23 18:00	1	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg	-	02/14/23 16:34	02/17/23 18:00	1	
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg	-	02/14/23 16:34	02/17/23 18:00	1	
o-Xylene	<0.00202	U	0.00202	mg/Kg	-	02/14/23 16:34	02/17/23 18:00	1	
Xylenes, Total	<0.00404	U	0.00404	mg/Kg	-	02/14/23 16:34	02/17/23 18:00	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	104		70 - 130			02/14/23 16:34	02/17/23 18:00	1	
1,4-Difluorobenzene (Surr)	90		70 - 130			02/14/23 16:34	02/17/23 18:00	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00404	U	0.00404	mg/Kg	-		02/20/23 14:15	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg	-		02/19/23 12:20	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	<49.9	U *1	49.9	mg/Kg	-	02/16/23 09:47	02/17/23 18:10	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	-	02/16/23 09:47	02/17/23 18:10	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	-	02/16/23 09:47	02/17/23 18:10	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	79		70 - 130			02/16/23 09:47	02/17/23 18:10	1	
o-Terphenyl	77		70 - 130			02/16/23 09:47	02/17/23 18:10	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	114		5.05	mg/Kg	-		02/16/23 23:59	1	

Surrogate Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea 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 (70-130)	DFBZ1 (70-130)
890-4089-A-1-B MS	Matrix Spike	126	114
890-4089-A-1-C MSD	Matrix Spike Duplicate	132 S1+	104
890-4098-1	SS07	104	90
LCS 880-46342/1-A	Lab Control Sample	109	105
LCSD 880-46342/2-A	Lab Control Sample Dup	116	103
MB 880-46342/5-A	Method Blank	76	96
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 (70-130)	OTPH1 (70-130)
890-4098-1	SS07	79	77
890-4099-A-1-C MS	Matrix Spike	105	93
890-4099-A-1-D MSD	Matrix Spike Duplicate	101	90
LCS 880-46509/2-A	Lab Control Sample	100	90
LCSD 880-46509/3-A	Lab Control Sample Dup	100	99
MB 880-46509/1-A	Method Blank	100	94
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

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

Lab Sample ID: MB 880-46342/5-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46342

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/14/23 16:34	02/17/23 14:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	02/14/23 16:34	02/17/23 14:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/14/23 16:34	02/17/23 14:09	1

Lab Sample ID: LCS 880-46342/1-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1214		mg/Kg		121	70 - 130
Toluene	0.100	0.1106		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1137		mg/Kg		114	70 - 130
m-Xylene & p-Xylene	0.200	0.2456		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1219		mg/Kg		122	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-46342/2-A

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	14	35
Toluene	0.100	0.1042		mg/Kg		104	70 - 130	6	35
Ethylbenzene	0.100	0.1073		mg/Kg		107	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2301		mg/Kg		115	70 - 130	6	35
o-Xylene	0.100	0.1157		mg/Kg		116	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-4089-A-1-B MS

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1 F2	0.100	0.1523	F1	mg/Kg		152	70 - 130
Toluene	<0.00202	U	0.100	0.09819		mg/Kg		98	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

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

Lab Sample ID: 890-4089-A-1-B MS

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.100	0.09453		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2043		mg/Kg		102	70 - 130
o-Xylene	<0.00202	U	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	126		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: 890-4089-A-1-C MSD

Matrix: Solid

Analysis Batch: 46568

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0990	0.1032	F2	mg/Kg		104	70 - 130	38	35
Toluene	<0.00202	U	0.0990	0.09209		mg/Kg		93	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.0990	0.09634		mg/Kg		97	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.2071		mg/Kg		105	70 - 130	1	35
o-Xylene	<0.00202	U	0.0990	0.1053		mg/Kg		106	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: MB 880-46509/1-A

Matrix: Solid

Analysis Batch: 46560

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46509

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/16/23 09:47	02/17/23 08:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/16/23 09:47	02/17/23 08:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/16/23 09:47	02/17/23 08:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	02/16/23 09:47	02/17/23 08:54	1
o-Terphenyl	94		70 - 130	02/16/23 09:47	02/17/23 08:54	1

Lab Sample ID: LCS 880-46509/2-A

Matrix: Solid

Analysis Batch: 46560

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46509

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	825.8		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	1000	912.4		mg/Kg		91	70 - 130

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QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

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

Lab Sample ID: LCS 880-46509/2-A  
Matrix: Solid  
Analysis Batch: 46560

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 46509

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-46509/3-A  
Matrix: Solid  
Analysis Batch: 46560

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 46509

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1126	*1	mg/Kg		113	70 - 130	31	20
Diesel Range Organics (Over C10-C28)	1000	1011		mg/Kg		101	70 - 130	10	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-4099-A-1-C MS  
Matrix: Solid  
Analysis Batch: 46560

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 46509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	1000	1085		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	886.5		mg/Kg		87	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-4099-A-1-D MSD  
Matrix: Solid  
Analysis Batch: 46560

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 46509

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	1000	1111		mg/Kg		107	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	863.0		mg/Kg		85	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	90		70 - 130

## QC Sample Results

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46462/1-A

Matrix: Solid

Analysis Batch: 46553

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/16/23 23:40	1

Lab Sample ID: LCS 880-46462/2-A

Matrix: Solid

Analysis Batch: 46553

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.4		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-46462/3-A

Matrix: Solid

Analysis Batch: 46553

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
Chloride	250	238.9		mg/Kg		96	90 - 110	1	20

Lab Sample ID: 890-4098-1 MS

Matrix: Solid

Analysis Batch: 46553

Client Sample ID: SS07

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	114		253	360.3		mg/Kg		97	90 - 110

Lab Sample ID: 890-4098-1 MSD

Matrix: Solid

Analysis Batch: 46553

Client Sample ID: SS07

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	114		253	361.6		mg/Kg		98	90 - 110	0	20

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## QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

## GC VOA

## Prep Batch: 46342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Total/NA	Solid	5035	
MB 880-46342/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4089-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4089-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 46568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Total/NA	Solid	8021B	46342
MB 880-46342/5-A	Method Blank	Total/NA	Solid	8021B	46342
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	8021B	46342
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46342
890-4089-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46342
890-4089-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46342

## Analysis Batch: 46745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 46509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-46509/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46509/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46509/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4099-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4099-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 46560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Total/NA	Solid	8015B NM	46509
MB 880-46509/1-A	Method Blank	Total/NA	Solid	8015B NM	46509
LCS 880-46509/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46509
LCSD 880-46509/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46509
890-4099-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	46509
890-4099-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46509

## Analysis Batch: 46663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 46462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Soluble	Solid	DI Leach	
MB 880-46462/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46462/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46462/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 46462 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1 MS	SS07	Soluble	Solid	DI Leach	
890-4098-1 MSD	SS07	Soluble	Solid	DI Leach	

Analysis Batch: 46553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4098-1	SS07	Soluble	Solid	300.0	46462
MB 880-46462/1-A	Method Blank	Soluble	Solid	300.0	46462
LCS 880-46462/2-A	Lab Control Sample	Soluble	Solid	300.0	46462
LCSD 880-46462/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46462
890-4098-1 MS	SS07	Soluble	Solid	300.0	46462
890-4098-1 MSD	SS07	Soluble	Solid	300.0	46462

Lab Chronicle

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

Client Sample ID: SS07

Lab Sample ID: 890-4098-1

Date Collected: 02/08/23 13:00

Matrix: Solid

Date Received: 02/13/23 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 18:00	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46745	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46663	02/19/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46509	02/16/23 09:47	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46560	02/17/23 18:10	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	46462	02/15/23 15:39	KS	EET MID
Soluble	Analysis	300.0		1			46553	02/16/23 23:59	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea 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
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum  
Project/Site: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea 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: EVGSAU Sat 6 Mobile Tester

Job ID: 890-4098-1  
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4098-1	SS07	Solid	02/08/23 13:00	02/13/23 15:02	0.5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14





**Environment Testing**  
**Xenoco**

Houston, TX (261) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199


## Chain of Custody

**Work Order No:** \_\_\_\_\_

www.xenco.com Page 1 of 1

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marlenfeld St Suite 400	Address:	601 N Marlenfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, drikanorov@ensolum.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	

Project Name:		EVGSAU Sat 6 Mobile Tester		Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes					
Project Number:		03D2057072		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush														None: NO					
Project Location:		Lea County, NM		Due Date:														Cool: Cool					
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC					
PO #:																		H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>					
SAMPLE RECEIPT		Temp Blank:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												H <sub>3</sub> PO <sub>4</sub> : HP			
Samples Received intact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:				TAT-007												NaHSO <sub>4</sub> : NABIS			
Cooler Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Correction Factor:				-0.02												Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>			
Sample Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		N/A		Temperature Reading:		5.9												Zn Acetate+NaOH: Zn			
Total Containers:				Corrected Temperature:		5.7														NaOH+Ascorbic Acid: SAPC			
Parameters																							
RIDES (EPA: 300.0)																							
015)																							
8021																							
																							
890-4098 Chain of Custody																							

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO <sub>2</sub>	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed			TCPLP / SPLP 6010:		8RCRA		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U											
																								Hg: 1631 / 245, 1 / 7470 / 7471										

of service. Eurofins Xenco shall be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$65.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated. Notice: Signature of this document at requisishment of samples constitutes a valid purchase order from client company, to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>PNK</i>	<i>Armed &amp; Safe</i>	2-13-23 1500			
3		4			
5		6			

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4098-1

SDG Number: Lea County NM

Login Number: 4098

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	N/A	Refer to Job Narrative for details.
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	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4098-1

SDG Number: Lea County NM

Login Number: 4098

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/15/23 12:16 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
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	



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

November 22, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: EVGSAU SAT 6 MOBILE TESTER

Enclosed are the results of analyses for samples received by the laboratory on 11/20/23 16:09.

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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS01 @ 1' (H236321-01)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTX	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS02 @ 1' (H236321-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTEX	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS03 @ 1' (H236321-03)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTX	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS04 @ 1' (H236321-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTEx	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

Cardinal Laboratories

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





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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS05 @ 1' (H236321-05)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340	
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873	
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856	GC-NC
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04	
Total BTX	<0.300	0.300	11/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 140 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	11/21/2023	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	1440	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	328	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 153 % 49.1-148

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\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS06 @ 1' (H236321-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTEX	<0.300	0.300	11/21/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	193	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	107	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS12 @ 1' (H236321-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTEX	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	14.6	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	22.5	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS13 @ 1' (H236321-08)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTX	<0.300	0.300	11/21/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	208	16.0	11/21/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 95.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS14 @ 1' (H236321-09)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340	
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873	
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856	
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04	
Total BTEX	<0.300	0.300	11/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	336	16.0	11/21/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS15 @ 1' (H236321-10)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340		
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04		
Total BTX	<0.300	0.300	11/21/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	208	16.0	11/21/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 97.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/22/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW01 @ 0-1' (H236321-11)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/21/2023	ND	1.98	98.9	2.00	0.340	
Toluene*	<0.050	0.050	11/21/2023	ND	2.07	103	2.00	0.873	
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.08	104	2.00	0.856	
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.26	104	6.00	1.04	
Total BTEX	<0.300	0.300	11/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	96.0	16.0	11/21/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	198	99.1	200	1.23	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	217	109	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.0 % 49.1-148

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



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Notes and Definitions

- S-04            The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- GC-NC        8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
- 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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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

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





# CARDINAL

## Laboratories

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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> <u>MSolum LLC</u> <b>Project Manager:</b> <u>Mike Bell</u> <b>Address:</b> <u>3221 1st Parks Hwy</u> <b>City:</b> <u>Corksbad</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88220</u> <b>Phone #:</b> <u>720-384-765</u> <b>Fax #:</b> <u></u> <b>Project #:</b> <u>BD2051072</u> <b>Project Owner:</b> <u>Maerick</u> <b>Project Name:</b> <u>AVSAU SAT 6 Mobile - Ester</u> <b>Project Location:</b> <u>(32, 79002, -103, 45487)</u> <b>Sample Name:</b> <u>1A 1000000 Falcornado</u>		<b>BILL TO</b> <b>P.O. #:</b> <u></u> <b>Company:</b> <u></u> <b>Attn:</b> <u></u> <b>Address:</b> <u></u> <b>City:</b> <u></u> <b>State:</b> <u></u> <b>Zip:</b> <u></u> <b>Phone #:</b> <u></u> <b>Fax #:</b> <u></u>			
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> <u>H36321</u> <b>Sample I.D.</b> <u></u>		<b>MATRIX</b> (G)RAB OR (C)OMP. <u></u> # CONTAINERS <u>1</u> GROUNDWATER <u></u> WASTEWATER <u></u> SOIL <u>X</u> OIL <u></u> SLUDGE <u></u> OTHER: <u></u>	<b>PRESERV.</b> ACID/BASE: <u></u> ICE / COOL <u>X</u> OTHER: <u></u>	<b>SAMPLING</b> DATE <u>11/17/23</u> TIME <u>10:10</u> <u>10:20</u> <u>10:30</u> <u>12:00</u> <u>12:05</u> <u>12:10</u> <u>14:30</u> <u>14:35</u> <u>14:40</u>	<b>ANALYSIS REQUEST</b> <u>BTEX</u> <u>TPH</u> <u>enclonides</u>

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<b>Relinquished By:</b> <u>[Signature]</u> <b>Date:</b> <u>11-20-23</u> <b>Time:</b> <u>14:09</u>	<b>Received By:</b> <u>[Signature]</u> <b>Date:</b> <u>11-20-23</u> <b>Time:</b> <u>14:09</u>
---	---

**Delivered By:** (Circle One) Observed Temp. °C 21.0 **Sample Condition** Cool Intact  
**Sampler - UPS - Bus - Other:** Corrected Temp. °C  **Checked By:** [Signature] (Initials)  
**Turnaround Time:** Standard **Rush**  **Bacteria (only)** Sample Condition Cool Intact Observed Temp. °C   
**Thermometer ID #140** **Correction Factor 0°C**  **Corrected Temp. °C**

**REMARKS:** MSolum LLC, falcornado@msolum.com

† 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>AROLUM, LLC</u> <b>Project Manager:</b> <u>James Lege</u> <b>Address:</b> <u>822 Nat'l Parks Hwy</u> <b>City:</b> <u>Carlsbad</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88420</u> <b>Phone #:</b> <u>720-344-7305</u> <b>Fax #:</b> _____ <b>Project #:</b> <u>BD057072</u> <b>Project Owner:</b> <u>Maverick</u> <b>Project Name:</b> <u>QV45AP SAT 4 Mobile Tester</u> <b>Project Location:</b> <u>(32.74002, -103.45467)</u> <b>Sampler Name:</b> <u>Julianne Falconmado</u>				<b>BILL TO</b> <b>P.O. #:</b> _____ <b>Company:</b> _____ <b>Attn:</b> _____ <b>Address:</b> _____ <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ <b>Phone #:</b> _____ <b>Fax #:</b> _____		<b>ANALYSIS REQUEST</b>					
<b>FOR LAB USE ONLY</b>				<b>MATRIX</b> (G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : _____		<b>PRESERV</b> ACID/BASE: ICE / COOL OTHER : _____		<b>SAMPLING</b> DATE TIME		BTEX TPH Chlorides	
<b>Lab I.D.</b> <u>H23631</u> <b>Sample I.D.</b> <u>SW02 00-1</u>				(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : _____		ACID/BASE: ICE / COOL OTHER : _____		DATE TIME		BTEX TPH Chlorides	
<b>Relinquished By:</b> _____ <b>Date:</b> <u>11-20-23</u> <b>Time:</b> <u>11:09</u> <b>Received By:</b> _____ <b>Date:</b> _____ <b>Time:</b> _____				<b>Verbal Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Add'l Phone #:</b> _____ <b>All Results are emailed. Please provide Email address:</b> _____ <b>REMARKS:</b> <u>Mobile AROLUM.com, falconmado@arolum.com</u> <u>NAAP 230114550</u> <b>Turnaround Time:</b> _____ <b>Thermometer ID #140</b> <b>Standard</b> <input checked="" type="checkbox"/> <b>Rush</b> <input type="checkbox"/> <b>Correction Factor 0°C</b> <input type="checkbox"/> <b>Bacteria (only)</b> <input type="checkbox"/> <b>Cool Intact</b> <input type="checkbox"/> <b>Sample Condition</b> <input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>Observed Temp. °C</b> _____ <b>No</b> <input type="checkbox"/> <b>Corrected Temp. °C</b> _____		<b>Delivered By:</b> (Circle One) <b>Sampler - UPS - Bus - Other:</b> _____ <b>Observed Temp. °C</b> <u>3.1°C</u> <b>Corrected Temp. °C</b> _____ <b>Sample Condition</b> <input checked="" type="checkbox"/> <b>Cool Intact</b> <input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>Observed Temp. °C</b> _____ <b>No</b> <input type="checkbox"/> <b>Corrected Temp. °C</b> _____		<b>Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com</b>			





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

November 21, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: EVGSAU SAT 6 MOBILE TESTER

Enclosed are the results of analyses for samples received by the laboratory on 11/20/23 16:09.

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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/21/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS08 @ 1' (H236322-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/21/2023	ND	2.15	108	2.00	0.285	
Toluene*	<0.050	0.050	11/21/2023	ND	2.11	106	2.00	1.03	
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.09	104	2.00	1.35	
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.56	109	6.00	1.29	
Total BTX	<0.300	0.300	11/21/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	199	99.4	200	1.03	
DRO >C10-C28*	24.0	10.0	11/21/2023	ND	180	90.1	200	0.905	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/21/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS09 @ 1' (H236322-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	2.15	108	2.00	0.285		
Toluene*	<0.050	0.050	11/21/2023	ND	2.11	106	2.00	1.03		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.09	104	2.00	1.35		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.56	109	6.00	1.29		
Total BTEX	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	864	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	199	99.4	200	1.03	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	180	90.1	200	0.905	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 88.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.1 % 49.1-148

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\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/21/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS10 @ 1' (H236322-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	2.15	108	2.00	0.285		
Toluene*	<0.050	0.050	11/21/2023	ND	2.11	106	2.00	1.03		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.09	104	2.00	1.35		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.56	109	6.00	1.29		
Total BTEX	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	199	99.4	200	1.03	
DRO >C10-C28*	<10.0	10.0	11/21/2023	ND	180	90.1	200	0.905	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 73.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 64.9 % 49.1-148

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\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/20/2023  
 Reported: 11/21/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: (32.79002'-103'45487

Sampling Date: 11/20/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS11 @ 1' (H236322-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/21/2023	ND	2.15	108	2.00	0.285		
Toluene*	<0.050	0.050	11/21/2023	ND	2.11	106	2.00	1.03		
Ethylbenzene*	<0.050	0.050	11/21/2023	ND	2.09	104	2.00	1.35		
Total Xylenes*	<0.150	0.150	11/21/2023	ND	6.56	109	6.00	1.29		
Total BTEx	<0.300	0.300	11/21/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	11/21/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2023	ND	199	99.4	200	1.03	
DRO >C10-C28*	28.7	10.0	11/21/2023	ND	180	90.1	200	0.905	
EXT DRO >C28-C36	<10.0	10.0	11/21/2023	ND					

Surrogate: 1-Chlorooctane 90.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

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\*=Accredited Analyte

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

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

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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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A handwritten signature in black ink, appearing to read "Mike Snyder".

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





101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 7 of 7

<b>Company Name:</b> <u>Cardinal</u> <b>Project Manager:</b> <u>Amber Lee</u> <b>Address:</b> <u>8121 Dat Parts Hwy</u> <b>City:</b> <u>Carlsbad</u> <b>Phone #:</b> <u>720-384-7848</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88220</u> <b>Project #:</b> <u>0802051072</u> <b>Fax #:</b> <u>-</u> <b>Project Name:</b> <u>QUASAT SAT &amp; Mobile Tester</u> <b>Project Location:</b> <u>2179002-108, 45487</u> <b>Sampler Name:</b> <u>William Falcón</u>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>	
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> <u>H23638</u> <b>Sample I.D.</b> <u>* 11/20/23</u>		<b>MATRIX</b> (G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		<b>PRESERVATION</b> DATE TIME	
11/20/23 1405 11/20/23 1410 11/20/23 1415 11/20/23 1420		X X X X		BTEX TPH ON/lorides	
<b>PLEASE NOTE:</b> Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. No event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or other, "as is".		<b>RECEIVED BY:</b> <b>Date:</b> <u>11-20-23</u> <b>Time:</b> <u>14:05</u> <b>Received By:</b> <u>[Signature]</u>		<b>REMARKS:</b> <u>Mobile Quasat.com, Falcon</u> <u>0802051072</u>	
<b>Relinquished By:</b> <u>[Signature]</u> <b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: <u>Other</u>		<b>Observed Temp. °C</b> <u>21.0</u> <b>Corrected Temp. °C</b> <u>21.0</u> <b>Sample Condition</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>CHECKED BY:</b> <u>[Signature]</u> <b>Turnaround Time:</b> <u>Standard</u> <b>Thermometer ID #140</b> <u>241</u> <b>Correction Factor 0°C</b> <u>0.0</u> <b>Bacteria (only) Sample Condition</b> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	

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



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

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November 28, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: EVGSAU SAT 6 MOBILE TESTER

Enclosed are the results of analyses for samples received by the laboratory on 11/22/23 13:20.

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". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/21/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 07 1' (H236378-01)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47	
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88	
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10	
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43	
Total BTX	<0.300	0.300	11/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	1360	16.0	11/27/2023	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	11/23/2023	ND	214	107	200	3.02	
DRO >C10-C28*	181	10.0	11/23/2023	ND	219	110	200	4.84	
EXT DRO >C28-C36	43.9	10.0	11/23/2023	ND					

Surrogate: 1-Chlorooctane 99.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/21/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 16 1' (H236378-02)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47		
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88		
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10		
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43		
Total BTEx	<0.300	0.300	11/23/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	736	16.0	11/27/2023	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	11/23/2023	ND	214	107	200	3.02	
DRO >C10-C28*	<10.0	10.0	11/23/2023	ND	219	110	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	11/23/2023	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 139 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/21/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW 02 0-1' (H236378-03)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47		
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88		
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10		
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43		
Total BTX	<0.300	0.300	11/23/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	800	16.0	11/27/2023	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	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	294	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	59.5	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 64.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/22/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 17 1' (H236378-04)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47		
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88		
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10		
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43		
Total BTEX	<0.300	0.300	11/23/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	96.0	16.0	11/27/2023	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	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	52.0	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 85.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/22/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 18 1' (H236378-05)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47		
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88		
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10		
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43		
Total BTX	<0.300	0.300	11/23/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	656	16.0	11/27/2023	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	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	16.9	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/22/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW 03 0-1' (H236378-06)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47		
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88		
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10		
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43		
Total BTEx	<0.300	0.300	11/23/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	11/27/2023	ND	416	104	400	0.00	QR-03	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	287	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	81.5	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 81.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/22/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 09A 1.25' (H236378-07)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47		
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88		
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10		
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43		
Total BTEX	<0.300	0.300	11/23/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	784	16.0	11/27/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	266	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	48.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 63.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/22/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7400,-103.4551

Sampling Date: 11/22/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 10A 1.25' (H236378-08)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2023	ND	1.95	97.3	2.00	2.47		
Toluene*	<0.050	0.050	11/23/2023	ND	2.07	104	2.00	2.88		
Ethylbenzene*	<0.050	0.050	11/23/2023	ND	2.08	104	2.00	2.10		
Total Xylenes*	<0.150	0.150	11/23/2023	ND	6.28	105	6.00	2.43		
Total BTEX	<0.300	0.300	11/23/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1620	16.0	11/27/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	159	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	27.6	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 81.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QR-03      The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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

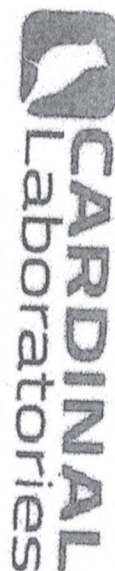
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

AF# 00006000 2754

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

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Anne Cole <b>Address:</b> 3122 Northwest Park Hwy <b>City:</b> Lubbock <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 726-384-7305 <b>Fax #:</b> <b>Project #:</b> 0302057072 <b>Project Owner:</b> Maxwell <b>Project Name:</b> EVESAN Site Mobile Test <b>Project Location:</b> 32.7400 -103.4551 <b>Sampler Name:</b> Ronni Hayes										<b>P.O. #:</b> <b>Company:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>									
FOR LAB USE ONLY										BILL TO									
<b>Lab I.D.</b> <b>Sample I.D.</b> <b>Depth (feet)</b> <b>(G)RAB OR (C)OMP.</b> <b># CONTAINERS</b> <b>GROUNDWATER</b> <b>WASTEWATER</b> <b>SOIL</b> <b>OIL</b> <b>SLUDGE</b> <b>OTHER :</b> <b>ACID/BASE:</b> <b>ICE / COOL</b> <b>OTHER :</b>										<b>MATRIX</b> <b>PRESERV</b> <b>SAMPLING</b> <b>DATE</b> <b>TIME</b> <b>BTEX</b> <b>TPH</b> <b>CI -</b>									
PLEASE NOTE: Liability and Damages, Cardinal liability and clients exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of time, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated remedies or otherwise.										ANALYSIS REQUEST									
<b>Relinquished By:</b> <b>Date:</b> <b>Time:</b> <b>Received By:</b> <b>Date:</b> <b>Time:</b>										Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: All Results are emailed. Please provide Email address: REMARKS:									
<b>Delivered By: (Circle One)</b> <b>Sampler - UPS - Bus - Other:</b> <b>Observed Temp. °C</b> <b>Corrected Temp. °C</b> <b>Sample Condition</b> <b>Cool Intact</b> <b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>Checked By:</b> <b>Turnaround Time:</b> <b>Thermometer ID #:</b> <b>Correction Factor: 0.5°C</b> <b>Standard</b> <input type="checkbox"/> <b>Bacteria (only)</b> <input type="checkbox"/> <b>Rush</b> <input type="checkbox"/> <b>Cool Intact</b> <input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>Sample Condition</b> <b>Observed Temp. °C</b> <b>Corrected Temp. °C</b>										11/24/23 6:51 11/24/23 10:08 11/24/23 09:21 11/05 11:05 11/50 12:10 12:15									



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

November 28, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: EVGSAU SAT 6 MOBILE TESTER

Enclosed are the results of analyses for samples received by the laboratory on 11/27/23 15:42.

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". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/27/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/27/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS 19 1.5' (H236387-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2023	ND	1.83	91.5	2.00	12.9	
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8	
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1	
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7	
Total BTX	<0.300	0.300	11/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	11/28/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	27.3	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 85.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 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  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/27/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/27/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS 20 1.5' (H236387-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/27/2023	ND	1.83	91.5	2.00	12.9		
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8		
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1		
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7		
Total BTEx	<0.300	0.300	11/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	11/28/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	<10.0	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 76.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/27/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/27/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS 21 2' (H236387-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/27/2023	ND	1.83	91.5	2.00	12.9		
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8		
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1		
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7		
Total BTEx	<0.300	0.300	11/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/28/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	83.0	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	10.3	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 88.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/27/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/27/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS 22 2' (H236387-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/27/2023	ND	1.83	91.5	2.00	12.9		
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8		
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1		
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7		
Total BTEx	<0.300	0.300	11/27/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/28/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	<10.0	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/27/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/27/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW04 0-2' (H236387-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/27/2023	ND	1.83	91.5	2.00	12.9		
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8		
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1		
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7		
Total BTEx	<0.300	0.300	11/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	11/28/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	455	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	97.2	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/27/2023  
 Reported: 11/28/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/27/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS 06A 1' (H236387-06)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2023	ND	1.83	91.5	2.00	12.9	
Toluene*	<0.050	0.050	11/27/2023	ND	1.92	96.2	2.00	12.8	
Ethylbenzene*	<0.050	0.050	11/27/2023	ND	1.94	97.2	2.00	13.1	
Total Xylenes*	<0.150	0.150	11/27/2023	ND	5.84	97.3	6.00	12.7	
Total BTEx	<0.300	0.300	11/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	11/28/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2023	ND	226	113	200	3.72	
DRO >C10-C28*	22.8	10.0	11/27/2023	ND	229	114	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	11/27/2023	ND					

Surrogate: 1-Chlorooctane 55.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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**Notes and Definitions**

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

---

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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

AE: 860006002754

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Anne Cole <b>Address:</b> 3122 National Parks Hwy <b>City:</b> Carlisle <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 720-384-7365 <b>Fax #:</b> <b>Project #:</b> 03D2057072 <b>Project Owner:</b> Maverick <b>Project Name:</b> EVESAU Sat & Mobile Tester <b>Project Location:</b> 32.7900, -103.4551 <b>Sampler Name:</b> Ronn, Huges <b>FOR LAB USE ONLY</b>										<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>										<b>ANALYSIS REQUEST</b> <b>HEF:</b> 060006002754																			
<b>Lab I.D.</b> H3Bio387 <b>Sample I.D.</b> <b>Depth (feet)</b> ES19 1.5 ES20 1.5 ES21 2 ES22 2 SW04 0-2 FS60a 11										<b>(G)RAB OR (C)OMP.</b> <b># CONTAINERS</b> <b>MATRIX</b> GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : <b>PRESERV</b> <b>SAMPLING</b>										<b>DATE</b> <b>TIME</b> 11/27/13 0850 0852 1232 1252 1230 1402										<b>BTEX</b> <b>CI-</b> <b>TPH</b>									
<b>PLEASE NOTE:</b> Liability and Damages. Cardholder liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits, incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated theories or otherwise.										<b>Relinquished By:</b> [Signature] <b>Date:</b> 11-27-23 <b>Time:</b> 15:42 <b>Received By:</b> [Signature] <b>Date:</b> <b>Time:</b>										<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: <b>Observed Temp. °C</b> 3.12 <b>Corrected Temp. °C</b> <b>Sample Condition</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <b>CHECKED BY:</b> [Signature] (initials) <b>Turnaround Time:</b> Standard Rush <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush <b>Thermometer ID #113</b> <b>Correction Factor -0.5°C</b> <b>Bacteria (only) Sample Condition</b> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <b>Corrected Temp. °C</b>																			
<b>REMARKS:</b> Accole@ensolum.com; thclmarta@ensolum.com All Results are emailed. Please provide Email address:																																							





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

December 01, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: EVGSAU SAT 6 MOBILE TESTER

Enclosed are the results of analyses for samples received by the laboratory on 11/28/23 16:41.

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". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/21/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS05A 1' (H236408-01)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.86	92.8	2.00	5.77		
Toluene*	<0.050	0.050	11/29/2023	ND	1.96	97.9	2.00	4.74		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.98	99.0	2.00	5.32		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	6.02	100	6.00	4.84		
Total BTX	<0.300	0.300	11/29/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 66.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 60.9 % 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  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS06B 1.5' (H236408-02)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.86	92.8	2.00	5.77		
Toluene*	<0.050	0.050	11/29/2023	ND	1.96	97.9	2.00	4.74		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.98	99.0	2.00	5.32		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	6.02	100	6.00	4.84		
Total BTX	<0.300	0.300	11/29/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 61.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 54.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS07A 1.5' (H236408-03)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.86	92.8	2.00	5.77		
Toluene*	<0.050	0.050	11/29/2023	ND	1.96	97.9	2.00	4.74		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.98	99.0	2.00	5.32		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	6.02	100	6.00	4.84		
Total BTEX	<0.300	0.300	11/29/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	69.5	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 82.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS09B 1.5' (H236408-04)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.86	92.8	2.00	5.77		
Toluene*	<0.050	0.050	11/29/2023	ND	1.96	97.9	2.00	4.74		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.98	99.0	2.00	5.32		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	6.02	100	6.00	4.84		
Total BTX	<0.300	0.300	11/29/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 72.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 63.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS10B 1.5' (H236408-05)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.82	91.0	2.00	7.67		
Toluene*	<0.050	0.050	11/29/2023	ND	1.85	92.6	2.00	7.97		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.86	93.0	2.00	7.99		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.52	91.9	6.00	7.82		
Total BTEx	<0.300	0.300	11/29/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	27.8	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 68.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS16A 1.5' (H236408-06)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.82	91.0	2.00	7.67		
Toluene*	<0.050	0.050	11/29/2023	ND	1.85	92.6	2.00	7.97		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.86	93.0	2.00	7.99		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.52	91.9	6.00	7.82		
Total BTEx	<0.300	0.300	11/29/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS18A 1.5' (H236408-07)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.82	91.0	2.00	7.67		
Toluene*	<0.050	0.050	11/29/2023	ND	1.85	92.6	2.00	7.97		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.86	93.0	2.00	7.99		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.52	91.9	6.00	7.82		
Total BTEx	<0.300	0.300	11/29/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 75.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.0 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS19A 2' (H236408-08)**

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.82	91.0	2.00	7.67		
Toluene*	<0.050	0.050	11/29/2023	ND	1.85	92.6	2.00	7.97		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.86	93.0	2.00	7.99		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.52	91.9	6.00	7.82		
Total BTEX	<0.300	0.300	11/29/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 62.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 55.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FS23 1' (H236408-09)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.82	91.0	2.00	7.67		
Toluene*	<0.050	0.050	11/29/2023	ND	1.85	92.6	2.00	7.97		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.86	93.0	2.00	7.99		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.52	91.9	6.00	7.82		
Total BTEX	<0.300	0.300	11/29/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	11.8	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 70.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 63.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW02A 0-1' (H236408-10)**

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	1.82	91.0	2.00	7.67		
Toluene*	<0.050	0.050	11/29/2023	ND	1.85	92.6	2.00	7.97		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.86	93.0	2.00	7.99		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	5.52	91.9	6.00	7.82		
Total BTEX	<0.300	0.300	11/29/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	24.5	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 65.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 59.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW03A 0-1.5' (H236408-11)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	2.05	102	2.00	6.69		
Toluene*	<0.050	0.050	11/29/2023	ND	2.01	101	2.00	7.00		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.98	99.0	2.00	7.14		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	6.39	106	6.00	6.25		
Total BTEX	<0.300	0.300	11/29/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 84.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 AIMEE COLE  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 11/28/2023  
 Reported: 12/01/2023  
 Project Name: EVGSAU SAT 6 MOBILE TESTER  
 Project Number: 03D2057072  
 Project Location: MAVERICK 32.7900,-103.4551

Sampling Date: 11/28/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW04A 0-2' (H236408-12)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/29/2023	ND	2.05	102	2.00	6.69		
Toluene*	<0.050	0.050	11/29/2023	ND	2.01	101	2.00	7.00		
Ethylbenzene*	<0.050	0.050	11/29/2023	ND	1.98	99.0	2.00	7.14		
Total Xylenes*	<0.150	0.150	11/29/2023	ND	6.39	106	6.00	6.25		
Total BTEX	<0.300	0.300	11/29/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/29/2023	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	11/29/2023	ND	196	97.8	200	0.508	
DRO >C10-C28*	<10.0	10.0	11/29/2023	ND	181	90.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	11/29/2023	ND					

Surrogate: 1-Chlorooctane 81.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.1 % 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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



CARDINAL  
Laboratoires

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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST

<b>Company Name:</b> Ensolum, LLC				
<b>Project Manager:</b> Dave Cole				
<b>Address:</b> 3122 National Parks Hwy City: Carlsbad State: NM Zip: 88220				
<b>Phone #:</b> 726-384-7365 Fax #: <b>Project #:</b> 63DZOS7672 Project Owner: MWH Inc				
<b>Project Name:</b> EVG SFA Scale Mobile Tester				
<b>Project Location:</b> 32.7960, -103.4551				
<b>Sampler Name:</b> Ron Hays				
FOR LAB USE ONLY				
<b>H3364108</b> Lab I.D.	<b>Sample I.D.</b>	<b>Depth (feet)</b>	(G)RAB OR (C)OMP.	# CONTAINERS
			MATRIX	PRESERVATION
			GROUNDWATER	
			WASTEWATER	
			SOIL	
			OIL	
			SLUDGE	
			OTHER :	
			ACID/BASE:	
			ICE / COOL	
			OTHER :	
			DATE	TIME
			BTEX	
			TPH	
			C-	

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<b>Relinquished By:</b> <i>[Signature]</i>	Date:	Received By:
	Time: 11:25 AM	Time: 10:41 AM
<b>Relinquished By:</b> <i>[Signature]</i>	Date:	Received By:
	Time:	Time:

**Delivered By: (Circle One)** Observed Temp.: °C 41.10 Corrected Temp.: °C 41.00 Sample Condition Cool Intact Yes No Checked BY: [Initials] Turnaround Time: Standard Rush Bacteria (only) Sample Condition Cool Intact Yes No Corrected Temp.: °C

**Sampler - UPS - Bus - Other:** Corrected Temp.: °C

**REMARKS:** acble@ensolum.com





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Anne Cole <b>Address:</b> 3122 Nuttall Parks Hwy <b>City:</b> Columbia <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 720-384-7305 <b>Fax #:</b> <b>Project #:</b> 632057072 <b>Project Owner:</b> Murrells <b>Project Name:</b> EVGSA Skt to Mobile Tether <b>Project Location:</b> 32, 7400, -103, 4351 <b>Sampler Name:</b> Ryan Myers <b>FOR LAB USE ONLY</b>										<b>P.O. #:</b> <b>Company:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>									
<b>Lab I.D.</b> H2364108 <b>Sample I.D.</b> <b>Depth (feet)</b> <b>(G)RAB OR (C)OMP.</b> <b># CONTAINERS</b> <b>MATRIX</b> GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : <b>ACID/BASE:</b> <b>ICE / COOL</b> OTHER : <b>DATE</b> <b>TIME</b>										<b>SAMPLING</b> BTEX TPH CI-									
<b>Relinquished By:</b> <b>Relinquished By:</b> <b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:										<b>Received By:</b> <b>Received By:</b> <b>Observed Temp. °C</b> <b>Corrected Temp. °C</b> <b>Sample Condition</b> Cool Intact Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <b>CHECKED BY:</b> (Initials) <b>Turnaround Time:</b> <b>Thermometer ID #433</b> <b>Correction Factor: -0.3°C</b> <b>Standard</b> Rusty <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Sample Condition</b> Observed Temp. °C Corrected Temp. °C									
<b>PLEASE NOTE: Liability and Damages.</b> Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																			
<b>REMARKS:</b> All Results are emailed. Please provide Email address: a.cole@ensolum.com																			



APPENDIX E

Reclamation Plan

---

Maverick Permian, LLC  
Closure Request  
EVGSAU Sat 6 Mobile Tester

## RECLAMATION PLAN

Portions of the release occurred off pad in the pasture and as such, a reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the off pad area that was impacted by the release per 19.15.29.13.D (1)) NMAC for the top 4 feet of areas that will be reclaimed following remediation. The following Reclamation Plan addresses reclamation of the off-pad area:

- The excavation will be backfilled with locally sourced caliche and topsoil to match surrounding grade. Approximately 1 foot of topsoil will be placed on top of the caliche to support vegetative growth within the disturbed area;
- Soil in the vicinity of the release includes: Loam, stony silt loam, and gravelly loam;
- The backfilled areas will be seeded utilizing a weed-free seed mix designed by the NMSLO to meet reclamation standards for this region, which will be: Loam (L) seed mixture as described in the NMSLO *Revegetation Guidelines Handbook for Southeastern New Mexico*, dated 2018;
- The seed mixture will be distributed with either a push broadcaster seed spreader, tractor operated broadcast seed spreader, and/or drill seeding method(s);
- Application of the seed mixture will be at a coverage of 10 pounds of seeds per acre of reclaimed pasture with distribution by a drilling method or 20 pounds of seeds per acre of reclaimed pasture with distribution by a broadcast method;
- If necessary, erosion control management will potentially include:
  - The placement of wattles in areas with a propensity for high run off rates;
  - Straw cover if high winds are anticipated to support moisture retention and limit wind from blowing seeds away before they have had time to germinate; and/or
  - Other erosional control best management practices (BMP) as necessary to support timely and healthy regrowth of vegetation in disturbed areas;
- Seeding is anticipated to be completed in the Spring or Fall when temperatures and precipitation is most conducive for vegetation growth. In general, seeding should occur approximately one month after the last frost in the Spring up until approximately one month prior to the first fall frost. NMSLO has recognized the optimal time to seed is between July and early September, which will be adhered to for this Site;
- Annual inspections (at a minimum), will take place on the location until revegetation is consistent with local natural vegetation density. The Site will be inspected the following Spring/Fall to assess the success of regrowth. If necessary, an additional application of the NMSLO-approved pure live seed mixture will be applied as well as any needed BMPs will be installed to support growth and limit erosion;

Upon completion of revegetation, a copy of the C-103 submitted to NMOCD will also be submitted to NMSLO for final inspection and release.





## APPENDIX F

### NMOCD Notifications

---

**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Aimee Cole](#)  
**Cc:** [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Subject:** RE: [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/13/2023)  
**Date:** Wednesday, November 8, 2023 2:51:24 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---

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

Good afternoon Aimee,

The OCD has received your notification. Next time notification is sent to OCD, please include the time sampling is anticipated to start at each location. 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.

Thank you,

*Shelly*

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

---

**From:** Aimee Cole <acole@ensolum.com>  
**Sent:** Wednesday, November 8, 2023 3:41 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Subject:** [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/13/2023)

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

Maverick Permian, LLC plans to complete sampling activities at the following site the week of November 13, 2023.

- SEMU Permian #37 / NAPP2305453661
  - Sampling Dates: 11/13/2023 – 11/14/2023
- EVGSAU Sat 6 Mobile Tester / NAPP2304744550
  - Sampling Dates: 11/15/2023 – 11/17/2023

Thank you,



**Aimee Cole**  
Senior Managing Scientist  
720-384-7365  
**Ensolum, LLC**  
☐☐☐

**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Aimee Cole](#)  
**Cc:** [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Subject:** RE: [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/20/2023)  
**Date:** Wednesday, November 15, 2023 12:19:25 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

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

Hi Aimee,

The OCD has received your notification. 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.

Thank you,

*Shelly*

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

---

**From:** Aimee Cole <[acole@ensolum.com](mailto:acole@ensolum.com)>  
**Sent:** Wednesday, November 15, 2023 1:04 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Subject:** [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/20/2023)

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

Maverick Permian, LLC plans to complete sampling activities at the following site the week of November 20, 2023.

- EVGSAU Sat 6 Mobile Tester / NAPP2304744550
  - Sampling Dates: 11/20/2023 – 11/22/2023 (between 9:00 am and 3:00 pm MT)

Thank you,

| **Aimee Cole**



Senior Managing Scientist  
720-384-7365  
**Ensolum, LLC**  
☐☐☐

**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Aimee Cole](#)  
**Cc:** [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Subject:** RE: [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/27/2023)  
**Date:** Wednesday, November 22, 2023 12:19:37 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---

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

Hi Aimee,

The OCD has received your notification. 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.

Thank you,

*Shelly*

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

---

**From:** Aimee Cole <[acole@ensolum.com](mailto:acole@ensolum.com)>  
**Sent:** Wednesday, November 22, 2023 12:43 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Subject:** [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/27/2023)

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

Maverick Permian, LLC plans to complete sampling activities at the following sites the week of November 27, 2023.

- EVGSAU Sat 6 Mobile Tester / NAPP2304744550
  - Sampling Dates: 11/27/2023 – 11/28/2023 (between 9:00 am and 3:00 pm MT)
- Elvis Injection Line / NAPP2213642290
  - Sampling Dates: 11/29/2023 – 12/1/2023 (between 9:00 am and 3:00 pm MT)

Thank you,



**Aimee Cole**

Senior Managing Scientist

720-384-7365

**Ensolum, LLC**





APPENDIX G

Form C-141



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	NAPP2304744550
District RP	
Facility ID	
Application ID	

# Release Notification

## Responsible Party

Responsible Party: Maverick Permian, LLC	OGRID: 331199
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: <a href="mailto:Bryce.Wagoner@mavresources.com">Bryce.Wagoner@mavresources.com</a>	Incident # (assigned by OCD) NAPP2304744550
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

## Location of Release Source

Latitude 32.7900 \_\_\_\_\_ Longitude -103.4551 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name EVGSAU Sat 6 Mobile Tester	Site Type
Date Release Discovered February 4, 2023	API# (if applicable) 30-025-20330

Unit Letter	Section	Township	Range	County
I	33	17S	35E	Lea

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 checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 3 bbls	Volume Recovered (bbls) 0 bbls
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 17 bbls	Volume Recovered (bbls) 16 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

## Cause of Release


The release was caused by a gasket failure on a mobile tester. The release occurred on and off pad. The source of the release has been stopped and the impacted area has been secured.

Incident ID	NAPP2304744550
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### 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: _____ Bryce Wagoner _____	Title: _____ Permian HSE Specialist II _____
Signature: _____  _____	Date: _____ 2/09/2023 _____
email: _____ Bryce.Wagoner@mavresources.com _____	Telephone: _____ 928-241-1862 _____
<b><u>OCD Only</u></b>	
Received by: _____ Jocelyn Harimon _____	Date: _____ 02/16/2023 _____

NAPP2304744550

Pooled Fluids on the Surface										
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries <i>*edges of pool where depth is 0. don't count shared boundaries</i>	Oil-Water Ratio (%)	Pooled Area (ft <sup>2</sup> )	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	75.0	45.0	1.0	4.0	0.20	3375.0	0.0	12.5	2.50	10.01
Rectangle B					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Volume (bbls):								12.52	2.50	10.01

Subsurface Fluids										
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) <i>*10% in consolidated sediments after rain to 50% in sand with no precipitation</i>	Oil-Water Ratio (%)	Area (ft <sup>2</sup> )	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	75.0	35.0	2.0	0.1	0.20	2625.0	77.9	7.8	1.56	6.2
Rectangle B						0.0	0.0	0.0	0.00	0.0
Rectangle C						0.0	0.0	0.0	0.00	0.0
Rectangle D						0.0	0.0	0.0	0.00	0.0
Rectangle E						0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J						0.0	0.0	0.0	0.00	0.0
Total Volume (bbls):								7.79	1.56	6.23

TOTAL RELEASE VOLUME (bbls):	20.3
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**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 187209

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 187209
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	2/20/2023

Incident ID	NAPP2304744550
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	51-100(ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	NAPP2304744550
District RP	
Facility ID	
Application ID	

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: Bryce Wagoner Title: Permian HSE Specialist II

Signature:  Date: 12/15/2023

email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862

**OCD Only**

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

Incident ID	NAPP2304744550
District RP	
Facility ID	
Application ID	

## Closure

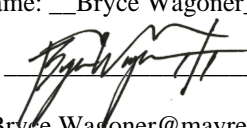
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled 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: Bryce Wagoner Title: Permian HSE Specialist II

Signature:  Date: 12/15/2023

email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862

### 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: Scott Rodgers Date: 02/21/2024

Printed Name: Scott Rodgers Title: Environmental Specialist Adv.



**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

QUESTIONS  
  
Action 298893

QUESTIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:	331199
	Action Number:	298893
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2304744550
Incident Name	NAPP2304744550 EVGSAU SAT 6 MOBILE TESTER @ 30-025-20330
Incident Type	Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-025-20330] EAST VACUUM (GSA) UNIT #402

Location of Release Source	
Please answer all the questions in this group.	
Site Name	EVGSAU SAT 6 MOBILE TESTER
Date Release Discovered	02/04/2023
Surface Owner	State

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure   Gasket   Crude Oil   Released: 3 BBL   Recovered: 0 BBL   Lost: 3 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Gasket   Produced Water   Released: 17 BBL   Recovered: 16 BBL   Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS, Page 2  
  
Action 298893

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:
	331199
	Action Number:
	298893
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

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

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 01/02/2024

**District I**

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

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**District III**

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Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

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

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

QUESTIONS, Page 3

Action 298893

**QUESTIONS (continued)**

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:	331199
	Action Number:	298893
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Site Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 200 and 300 (ft.)
Any other fresh water well or spring	Between 200 and 300 (ft.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Between ½ and 1 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

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

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

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

Chloride	(EPA 300.0 or SM4500 Cl B)	528
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	93.3
GRO+DRO	(EPA SW-846 Method 8015M)	83
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

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

On what estimated date will the remediation commence	11/17/2023
On what date will (or did) the final sampling or liner inspection occur	11/28/2023
On what date will (or was) the remediation complete(d)	11/28/2023
What is the estimated surface area (in square feet) that will be reclaimed	4500
What is the estimated volume (in cubic yards) that will be reclaimed	370
What is the estimated surface area (in square feet) that will be remediated	4500
What is the estimated volume (in cubic yards) that will be remediated	370

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

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

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**Santa Fe, NM 87505**

QUESTIONS, Page 4

Action 298893

**QUESTIONS (continued)**

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:	331199
	Action Number:	298893
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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

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

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

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	R360 Artesia LLC LANDFARM [FEEM0112340644]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

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

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

I hereby agree and sign off to the above statement	Name: Aimee Cole Email: <a href="mailto:acole@ensolum.com">acole@ensolum.com</a> Date: 01/02/2024
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5  
  
Action 298893

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 298893
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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Action 298893

**QUESTIONS (continued)**

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:	331199
	Action Number:	298893
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	298950
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/17/2023
What was the (estimated) number of samples that were to be gathered	27
What was the sampling surface area in square feet	4500

**Remediation Closure Request**

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

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	4500
What was the total volume (cubic yards) remediated	370
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	4500
What was the total volume (in cubic yards) reclaimed	370
Summarize any additional remediation activities not included by answers (above)	Release was remediated to 100/600.

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

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

I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 01/02/2024
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QUESTIONS, Page 7  
  
Action 298893

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 298893
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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CONDITIONS  
  
Action 298893

CONDITIONS

Operator:  Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:
	331199
	Action Number:
	298893
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	2/21/2024