ENSOLUM

July 20, 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**
**Warbler State Com 002Y**
**Incident Number NAPP2313130641**
**Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Warbler State Com 002Y (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacted soil resulting from an overspray release of crude oil and produced water at the Site. Based on field observations, excavation activities, and laboratory analytical results from the soil sampling events, COG is submitting this *Closure Request*, describing remediation that has occurred and requesting no further action for Incident Number NAPP2313130641.

## SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit C, Section 28, Township 21 South, Range 33 East, in Lea County, New Mexico (32.4565°, -103.5795°) and is associated with oil and gas exploration and production operations on private land managed by Merchant Livestock Company.

On April 27, 2023, a dump valve failed, sending fluid out of the flare and causing an overspray release of approximately 3.924 barrels (bbls) of crude oil and 1.68 barrels (bbls) of produced water onto the well pad and surrounding pasture. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on May 11, 2023. The release was assigned Incident Number NAPP2313130641.

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized for 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 greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 322702103344001, located approximately 0.2 miles southeast of the Site. The groundwater well has a reported depth to groundwater of 178.85 feet bgs and a total depth of 224 feet bgs. Ground surface elevation at the

groundwater well location is 3,688 feet above mean sea level (amsl), which is approximately 15 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a riverine, located approximately 7,695 feet 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, or church. The site is greater than 300 feet from a wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is 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)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture 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 immediately reclaimed following remediation.

## SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between May 1, 2023 and May 23, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Surface hydrocarbon staining was identified near the flare stack release point and warranted excavation. Four assessment soil samples (SS01 through SS04) were collected around the overspray release extent at an approximate depth of 0.5 feet bgs to confirm the lateral extent of the release. Boreholes were advanced via hand-auger at ten locations (SS05 through SS14) within the overspray release extent to assess for the presence or absence of impacted soil. Two discrete soil samples were collected at each location at depths of 0.5 feet and 1-foot bgs (SS05/SS05A through SS14/SS14A). The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix B. The 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 as Appendix C.

The 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 under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): 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 SS04, collected around the overspray release extent, indicated all COC concentrations were compliant with the most stringent Table I Site Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for borehole assessment samples SS05/SS05A through SS14/SS14A, collected within the overspray release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix D. Based on laboratory analytical results for the assessment soil samples, no impacted soil was identified within the overspray area; however, excavation of visible surface staining was warranted near the flare stack release point.

## EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On May 23, 2023, in coordination with assessment activities, Ensolum personnel oversaw excavation of the visible surface staining near the flare stack release point. Excavation activities were performed using a backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to depths ranging from 0.5 feet to 1-foot bgs.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor 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 FS05 were collected from the floor of the excavation at depths ranging from 0.5 feet to 1-foot bgs. Due to the shallow depth of the excavation, soil from the sidewalls were incorporated into the floor samples. The soil samples were handled and analyzed 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 2. Photographic documentation of the excavation is included in Appendix C.

Laboratory analytical results for excavation floor samples FS01 through FS05 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

The final excavation area measured approximately 997 square feet in areal size. A total of approximately 73 cubic yards of impacted soil was removed, transported, and properly disposed of at R360 Environmental Solutions in Hobbs, New Mexico.

## CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the April 27, 2023, release of crude oil and produced water. Laboratory analytical results for the assessment and excavation soil samples indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Additionally, the release was laterally and vertically defined to the most stringent Table I Closure Criteria. Based on the laboratory analytical results, no further remediation is required.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2313130641. NMOCD notifications are included in Appendix E and the Final C-141 is included in Appendix F.

If you have any questions or comments, please contact Ms. Hadlie Green at (432) 557-8895 or hgreen@ensolum.com.

Sincerely,
**Ensolum, LLC**

Hadlie Green
Project Geologist

Aimee Cole
Senior Managing Scientist

cc: Jacob Laird, COG Operating, LLC
Merchant Livestock Company

Appendices:

| | |
|---|---|
| Figure 1 | Site Receptor Map |
| Figure 2 | Soil Sample Locations |
| Table 1 | Soil Sample Analytical Results |
| Appendix A | Referenced Well Records |
| Appendix B | Lithologic/Soil Sampling Logs |
| Appendix C | Photographic Log |
| Appendix D | Laboratory Analytical Reports & Chain-of-Custody Documentation |
| Appendix E | NMOCD Notifications |
| Appendix F | Final C-141 |

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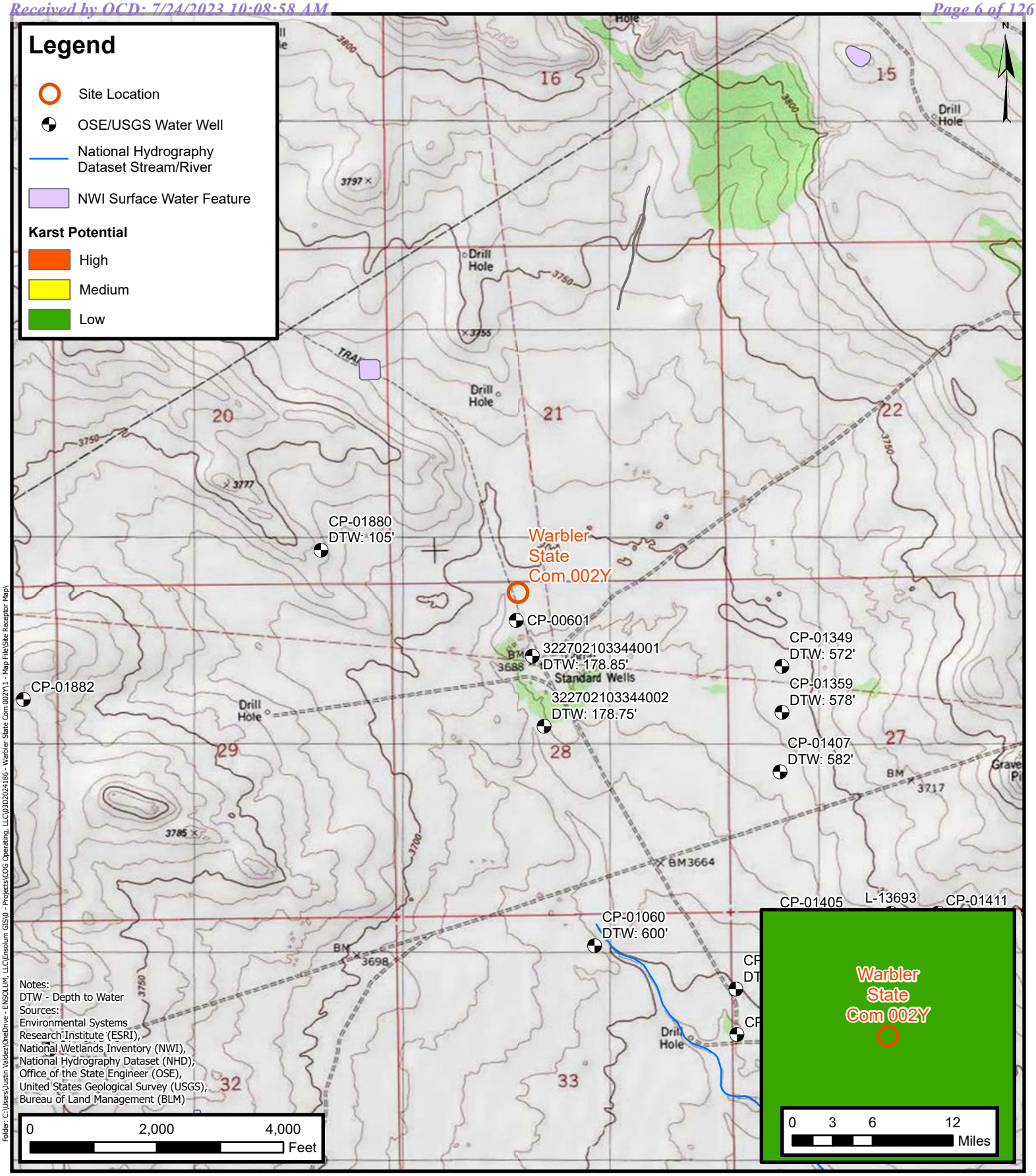
# FIGURES

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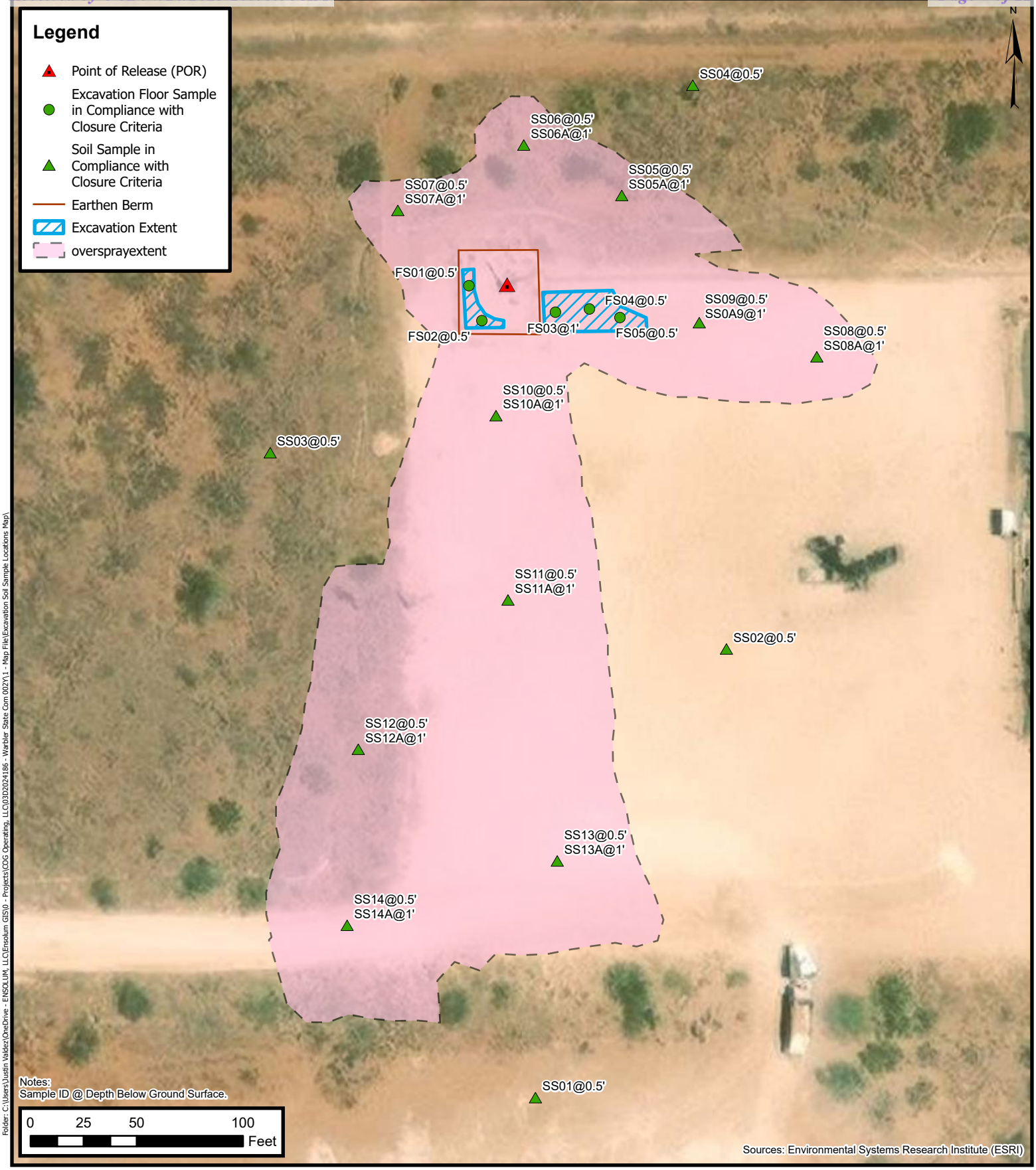
# Site Receptor Map

COG Operating, LLC
Warbler State Com 002Y
Incident Number: NAPP2313130641
Unit C, Sec 28, T21S, R33E
Lea County, New Mexico

**FIGURE 1**




Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\COG Operating, LLC\03202024186 - Warbler State Com 002Y\1 - Map File\Excavation Soil Sample Locations Map\

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# Soil Sample Locations

COG Operating, LLC
Warbler State Com 002Y
Incident Number: NAPP2313130641
Unit C, Sec 28, T21S, R33E
Lea County, New Mexico

**FIGURE 2**

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# TABLES

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# TABLE 1
## SOIL SAMPLE ANALYTICAL RESULTS
### Warbler State Com 002Y
### COG Operating, 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) | GRO+DRO (mg/kg) | Total TPH (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| NMOCD Table I Closure Criteria (NMAC 19.15.29) | | | 10 | 50 | NE | NE | NE | 1,000 | 2,500 | 20,000 |
| **Assessment Soil Samples** | | | | | | | | | | |
| SS01* | 05/01/2023 | 0.5 | <0.00199 | <0.00398 | <49.8 | <49.8 | <49.8 | <49.8 | <49.8 | 90.3 |
| SS02 | 05/01/2023 | 0.5 | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 49.5 |
| SS03* | 05/01/2023 | 0.5 | <0.00198 | <0.00396 | <49.8 | <49.8 | <49.8 | <49.8 | <49.8 | 61.5 |
| SS04* | 05/01/2023 | 0.5 | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 51.0 |
| SS05* | 05/23/2023 | 0.5 | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 55.1 |
| SS05A* | 05/23/2023 | 1 | <0.00200 | <0.00400 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 65.5 |
| SS06* | 05/23/2023 | 0.5 | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 67.1 |
| SS06A* | 05/23/2023 | 1 | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 61.1 |
| SS07* | 05/23/2023 | 0.5 | <0.00199 | <0.00398 | <49.8 | <49.8 | <49.8 | <49.8 | <49.8 | 48.2 |
| SS07A* | 05/23/2023 | 1 | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 50.7 |
| SS08 | 05/23/2023 | 0.5 | <0.00201 | <0.00402 | <49.9 | 59.9 | <49.9 | 59.9 | 59.9 | 145 |
| SS08A | 05/23/2023 | 1 | <0.00199 | <0.00398 | <50.0 | 58.4 | <50.0 | 58.4 | 58.4 | 242 |
| SS09 | 05/23/2023 | 0.5 | <0.00200 | <0.00401 | <49.8 | <49.8 | <49.8 | <49.8 | <49.8 | 78.2 |
| SS09A | 05/23/2023 | 1 | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 60.2 |
| SS10 | 05/23/2023 | 0.5 | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 73.0 |
| SS10A | 05/23/2023 | 1 | <0.00198 | <0.00396 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 105 |
| SS11 | 05/23/2023 | 0.5 | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 64.1 |
| SS11A | 05/23/2023 | 1 | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 84.1 |
| SS12* | 05/23/2023 | 0.5 | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 189 |
| SS12A* | 05/23/2023 | 1 | <0.00199 | 0.0114 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 112 |
| SS13 | 05/23/2023 | 0.5 | <0.00198 | <0.00396 | <49.8 | <49.8 | <49.8 | <49.8 | <49.8 | 67.8 |
| SS13A | 05/23/2023 | 1 | <0.00200 | <0.00400 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 115 |
| SS14* | 05/23/2023 | 0.5 | <0.00202 | <0.00404 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 127 |
| SS14A* | 05/23/2023 | 1 | <0.00200 | 0.0155 | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 | 193 |

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# TABLE 1
## SOIL SAMPLE ANALYTICAL RESULTS
### Warbler State Com 002Y
### COG Operating, 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) | GRO+DRO (mg/kg) | Total TPH (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **NMOCD Table I Closure Criteria (NMAC 19.15.29)** | | | **10** | **50** | **NE** | **NE** | **NE** | **1,000** | **2,500** | **20,000** |
| **Excavation Soil Samples** | | | | | | | | | | |
| FS01 | 05/23/2023 | 0.5 | <0.00202 | <0.00403 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 106 |
| FS02 | 05/23/2023 | 0.5 | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 137 |
| FS03 | 05/23/2023 | 1 | <0.00198 | <0.00396 | <49.8 | <49.8 | <49.8 | <49.8 | <49.8 | 62.3 |
| FS04 | 05/23/2023 | 0.5 | <0.00200 | <0.00400 | <49.8 | <49.8 | <49.8 | <49.8 | <49.8 | 71.2 |
| FS05 | 05/23/2023 | 0.5 | <0.00198 | <0.00397 | <49.9 | <49.9 | <49.9 | <49.9 | <49.9 | 41.9 |

***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*

*GRO: Gasoline Range Organics*

*DRO: Diesel Range Organics*

*ORO: Oil Range Organics*

*TPH: Total Petroleum Hydrocarbon*

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

*Grey text represents samples that have been excavated*

** indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard in the top 4 feet is 600 mg/kg for chloride and 100 mg/kg for TPH.*

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# APPENDIX A

## Referenced Well Records

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 New Mexico

Click to hide state-specific text

Important: Next Generation Monitoring Location Page

## Search Results -- 1 sites found

**Agency code =** usgs
**site_no list =**
- 322702103344001

**Minimum number of levels =** 1
Save file of selected sites to local disk for future upload

## USGS 322702103344001 21S.33E.28.12443

Lea County, New Mexico
Latitude 32°27'13", Longitude 103°34'42" NAD27
Land-surface elevation 3,688.00 feet above NGVD29
The depth of the well is 224 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

**Output formats**

| |
|---|
| Table of data |
| Tab-separated data |
| Graph of data |
| Reselect period |

| 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 measur |
|---|---|---|---|---|---|---|---|---|---|---|
| 1971-02-04 | | D | 62610 | | 3509.38 | NGVD29 | 1 | Z | | |
| 1971-02-04 | | D | 62611 | | 3511.01 | NAVD88 | 1 | Z | | |
| 1971-02-04 | | D | 72019 | 178.62 | | | 1 | Z | | |
| 1972-09-22 | | D | 62610 | | 3509.40 | NGVD29 | 1 | Z | | |
| 1972-09-22 | | D | 62611 | | 3511.03 | NAVD88 | 1 | Z | | |
| 1972-09-22 | | D | 72019 | 178.60 | | | 1 | Z | | |
| 1976-12-16 | | D | 62610 | | 3509.14 | NGVD29 | 1 | Z | | |
| 1976-12-16 | | D | 62611 | | 3510.77 | NAVD88 | 1 | Z | | |
| 1976-12-16 | | D | 72019 | 178.86 | | | 1 | Z | | |
| 1981-03-10 | | D | 62610 | | 3503.33 | NGVD29 | 1 | Z | | |
| 1981-03-10 | | D | 62611 | | 3504.96 | NAVD88 | 1 | Z | | |
| 1981-03-10 | | D | 72019 | 184.67 | | | 1 | Z | | |
| 1986-03-20 | | D | 62610 | | 3508.76 | NGVD29 | 1 | Z | | |
| 1986-03-20 | | D | 62611 | | 3510.39 | NAVD88 | 1 | Z | | |

| 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 measur |
|---|---|---|---|---|---|---|---|---|---|---|
| 1986-03-20 | | D | 72019 | 179.24 | | | 1 | Z | | |
| 1991-04-19 | | D | 62610 | | 3508.90 | NGVD29 | 1 | Z | | |
| 1991-04-19 | | D | 62611 | | 3510.53 | NAVD88 | 1 | Z | | |
| 1991-04-19 | | D | 72019 | 179.10 | | | 1 | Z | | |
| 1996-02-21 | | D | 62610 | | 3509.15 | NGVD29 | 1 | S | | |
| 1996-02-21 | | D | 62611 | | 3510.78 | NAVD88 | 1 | S | | |
| 1996-02-21 | | D | 72019 | 178.85 | | | 1 | S | | |

**Explanation**

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

# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

**1. GENERAL AND WELL LOCATION**

| OSE POD NO. (WELL NO.) | WELL TAG ID NO. | OSE FILE NO(S). |
|---|---|---|
| POD1 (TW-1) | n/a | CP-1880 |

| WELL OWNER NAME(S) | PHONE (OPTIONAL) |
|---|---|
| Advanced Energy Partners | 832.672.4700 |

| WELL OWNER MAILING ADDRESS | CITY | STATE | ZIP |
|---|---|---|---|
| 11490 Westheimer Rd. Stuit 950 | Houston | TX | 77077 |

| WELL LOCATION (FROM GPS) | | DEGREES | MINUTES | SECONDS | |
|---|---|---|---|---|---|
| | LATITUDE | 32 | 27 | 30.43 | N |
| | LONGITUDE | 103 | 35 | 22.44 | W |

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHJIP, RANGE) WHERE AVAILABLE

SE SE NE Sec. 30 T21S R33E

**2. DRILLING & CASING INFORMATION**

| LICENSE NO. | NAME OF LICENSED DRILLER | NAME OF WELL DRILLING COMPANY |
|---|---|---|
| 1249 | Jackie D. Atkins | Atkins Engineering Associates, Inc. |

| DRILLING STARTED | DRILLING ENDED | DEPTH OF COMPLETED WELL (FT) | BORE HOLE DEPTH (FT) | DEPTH WATER FIRST ENCOUNTERED (FT) |
|---|---|---|---|---|
| 10/08/2021 | 10/08/2021 | temporary well material | 105 | n/a |

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | BORE HOLE DIAM (inches) | CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen) | CASING CONNECTION TYPE (add coupling diameter) | CASING INSIDE DIAM. (inches) | CASING WALL THICKNESS (inches) | SLOT SIZE (inches) |
|---|---|---|---|---|---|---|---|
| 0 | 105 | ±6.5 | Boring- HSA | -- | -- | -- | -- |

**3. ANNULAR MATERIAL**

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | BORE HOLE DIAM. (inches) | LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL | AMOUNT (cubic feet) | METHOD OF PLACEMENT |
|---|---|---|---|---|---|

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 06/30/17)

| FILE NO. | CP-1880 | POD NO. | 1 | TRN NO. | 699664 |
|---|---|---|---|---|---|
| LOCATION | 21S.33E.20.443 | | | WELL TAG ID NO. | PAGE 1 OF 2 |

**4. HYDROGEOLOGIC LOG OF WELL**

| DEPTH (feet bgl) FROM | DEPTH (feet bgl) TO | THICKNESS (feet) | COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units) | WATER BEARING? (YES / NO) | ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm) |
|---|---|---|---|---|---|
| 0 | 9 | 9 | Caliche, with fine-grained sand, White/Tan | Y ✓N | |
| 9 | 19 | 10 | Sand, Fine-grained, poorly graded, with Caliche, Tan/ Brown | Y ✓N | |
| 19 | 105 | 86 | Sand, Fine-grained, poorly graded, Tan/ Brown | Y ✓N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
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| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |
| | | | | Y N | |

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

**5. TEST; RIG SUPERVISION**

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.

OSE DIT NOV 2 2021 AM 9:15

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

**6. SIGNATURE**

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 10/29/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

| FILE NO. | POD NO. | TRN NO. | |
|---|---|---|---|
| LOCATION | | WELL TAG ID NO. | PAGE 2 OF 2 |

ENSOLUM

# APPENDIX B

## Lithologic Soil Sampling Logs

ENSOLUM

| | | |
|---|---|---|
| | Sample Name: SS05 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Hand Auger |
| Coordinates: 32.457066,103.579866 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS05 | 0.5 | 0 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| Damp | <173 | 0.0 | N | SS05A | 1 | 1 | SP-SM | SAA (same as above) |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS06 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Hand Auger |
| Coordinates: 32.457133,-103.580014 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS06 | 0.5 | 0 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| Damp | <173 | 0.1 | N | SS06A | 1 | 1 | SP-SM | SAA (same as above) |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS07 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Hand Auger |
| Coordinates: 32.457051,-103.580207 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS07 | 0.5 | 0 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| Damp | <173 | 0.1 | N | SS07A | 1 | 1 | SP-SM | SAA (same as above) |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS08 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Backhoe |
| Coordinates: 32.456854,-103.579571 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.3 | N | SS08 | 0.5 | 0 | CHHE | Caliche: light tan, pinkish tan, some brown, fine grain sand, no stain, no odor |
| Damp | <173 | 0.3 | N | SS08A | 1 | 1 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS09 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Backhoe |
| Coordinates: 32.456901,-103.579750 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS09 | 0.5 | 0 | CHHE | Caliche: light tan, pinkish tan, some brown, fine grain sand, no stain, no odor |
| Damp | <173 | 0.1 | N | SS09A | 1 | 1 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS10 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Backhoe |
| Coordinates: 32.456784,-103.580062 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS10 | 0.5 | 0 | CHHE | Caliche: light tan, pinkish tan, some brown, fine grain sand, no stain, no odor |
| Damp | <173 | 0.1 | N | SS10A | 1 | 1 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS11 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Backhoe |
| Coordinates: 32.456545,-103.580047 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS11 | 0.5 | 0 | CHHE | Caliche: light tan, pinkish tan, some brown, fine grain sand, no stain, no odor |
| Damp | <173 | 0.1 | N | SS11A | 1 | 1 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS12 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Hand Auger |
| Coordinates: 32.456355,-103.580279 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS12 | 0.5 | 0 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| Damp | <173 | 0.1 | N | SS12A | 1 | 1 | SP-SM | SAA (same as above), some caliche gravel |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS13 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Backhoe |
| Coordinates: 32.456207,-103.579977 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS13 | 0.5 | 0 | CHHE | Caliche: light tan, pinkish tan, some brown, fine grain sand, no stain, no odor |
| Damp | <173 | 0.1 | N | SS13A | 1 | 1 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

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|---|---|---|
| | Sample Name: SS14 | Date: 5/23/2023 |
| | Site Name: Warbler State Com 002Y | |
| | Incident Number: NAPP2313130641 | |
| | Job Number: 03D2024179, 03D2024186 | |
| **LITHOLOGIC / SOIL SAMPLING LOG** | Logged By: Peter Van Patten | Method: Backhoe |
| Coordinates: 32.456127,-103.580299 | Hole Diameter: | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (ft bgs) | Depth (ft bgs) | USCS/Rock Symbol | Lithologic Descriptions |
|---|---|---|---|---|---|---|---|---|
| Damp | <173 | 0.1 | N | SS14 | 0.5 | 0 | CHHE | Caliche: light tan, pinkish tan, some brown, fine grain sand, no stain, no odor |
| Damp | <173 | 0.1 | N | SS14A | 1 | 1 | SP-SM | Sand: brown, fine grain, poorly graded, no stain, no odor |
| | | | | | | | | TD 1 foot bgs |
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ENSOLUM

# APPENDIX C

## Photographic Log

ENSOLUM

**Photographic Log**
COG Operating, LLC
Warbler State Com 002Y
NAPP2313130641

Photograph: 1 Date: 4/27/2023
Description: Soil staining in release footprint
View: North


Photograph: 2 Date: 5/1/2023
Description: Soil staining, initial site assessment
View: North


Photograph: 3 Date: 5/23/2023
Description: Excavation activities
View: West


Photograph: 4 Date: 5/23/2023
Description: Excavation activities
View: West

ENSOLUM

# APPENDIX D

## Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 5/8/2023 3:23:18 PM

## JOB DESCRIPTION

Warbler State Com 2Y
SDG NUMBER 03D2024186

## JOB NUMBER

890-4600-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

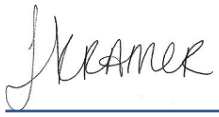
# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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
5/8/2023 3:23:18 PM

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

Client: Ensolum
Project/Site: Warbler State Com 2Y

Laboratory Job ID: 890-4600-1
SDG: 03D2024186

# Table of Contents

# Definitions/Glossary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

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

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| 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. |

### 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: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Job ID: 890-4600-1

**Laboratory: Eurofins Carlsbad**

**Narrative**

**Job Narrative**
**890-4600-1**

**Receipt**
The samples were received on 5/1/2023 2:20 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 5.0°C

**Receipt Exceptions**
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4600-1), SS02 (890-4600-2), SS03 (890-4600-3) and SS04 (890-4600-4).

**GC VOA**
Method 8021B: The following samples were diluted due to the nature of the sample matrix: (890-4587-A-1-E MS) and (890-4587-A-1-F MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-52362 recovered above the upper control limit for Toluene. An acceptable CCV was ran within the 12 hour window therefore, the data have been reported. The associated sample is impacted: (CCV 880-52362/29).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-52362 recovered above the upper control limit for Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-4600-1) and SS03 (890-4600-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-52339/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS04 (890-4600-4). 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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52499 and analytical batch 880-52451 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 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-4600-1), SS02 (890-4600-2), SS04 (890-4600-4), (890-4603-A-19-B), (890-4603-A-19-C MS) and (890-4603-A-19-D 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.

**HPLC/IC**
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52486 and analytical batch 880-52596 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.The associated sample is: SS01 (890-4600-1).

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

# Case Narrative

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Job ID: 890-4600-1 (Continued)

**Laboratory: Eurofins Carlsbad (Continued)**

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Client Sample ID: SS01

**Lab Sample ID: 890-4600-1**
**Matrix: Solid**
**Date Collected: 05/01/23 11:35**
**Date Received: 05/01/23 14:20**
**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 | | 05/03/23 11:17 | 05/03/23 14:04 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:04 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:04 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:04 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:04 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *140* | *S1+* | *70 - 130* | *05/03/23 11:17* | *05/03/23 14:04* | *1* |
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* | *05/03/23 11:17* | *05/03/23 14:04* | *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 | | | 05/03/23 15:25 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.8 | U | 49.8 | | mg/Kg | | | 05/04/23 14:01 | 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 | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:16 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:16 | 1 |
| Total TPH | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *85* | | *70 - 130* | *05/03/23 12:02* | *05/03/23 23:16* | *1* |
| *o-Terphenyl* | *62* | *S1-* | *70 - 130* | *05/03/23 12:02* | *05/03/23 23:16* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **90.3** | | 4.99 | | mg/Kg | | | 05/04/23 05:32 | 1 |

## Client Sample ID: SS02

**Lab Sample ID: 890-4600-2**
**Matrix: Solid**
**Date Collected: 05/01/23 11:40**
**Date Received: 05/01/23 14:20**
**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 | | 05/03/23 11:17 | 05/03/23 14:30 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:30 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:30 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:30 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:30 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 05/03/23 11:17 | 05/03/23 14:30 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Client Sample ID: SS02

**Date Collected: 05/01/23 11:40**
**Date Received: 05/01/23 14:20**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-4600-2

**Matrix: Solid**

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *127* | | *70 - 130* | *05/03/23 11:17* | *05/03/23 14:30* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *05/03/23 11:17* | *05/03/23 14:30* | *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 | | | 05/03/23 15:25 | 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 | | | 05/04/23 14:01 | 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 | | 05/03/23 12:02 | 05/03/23 23:37 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:37 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:37 | 1 |
| Total TPH | <50.0 | U | 50.0 | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *85* | | *70 - 130* | *05/03/23 12:02* | *05/03/23 23:37* | *1* |
| *o-Terphenyl* | *61* | *S1-* | *70 - 130* | *05/03/23 12:02* | *05/03/23 23:37* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Chloride** | **49.5** | | 4.97 | mg/Kg | | | 05/04/23 05:37 | 1 |

## Client Sample ID: SS03

**Date Collected: 05/01/23 11:50**
**Date Received: 05/01/23 14:20**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-4600-3

**Matrix: Solid**

### 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 | | 05/03/23 11:30 | 05/03/23 14:55 | 1 |
| Toluene | <0.00198 | U | 0.00198 | mg/Kg | | 05/03/23 11:30 | 05/03/23 14:55 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | mg/Kg | | 05/03/23 11:30 | 05/03/23 14:55 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U | 0.00396 | mg/Kg | | 05/03/23 11:30 | 05/03/23 14:55 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | mg/Kg | | 05/03/23 11:30 | 05/03/23 14:55 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | mg/Kg | | 05/03/23 11:30 | 05/03/23 14:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *136* | *S1+* | *70 - 130* | *05/03/23 11:30* | *05/03/23 14:55* | *1* |
| *1,4-Difluorobenzene (Surr)* | *79* | | *70 - 130* | *05/03/23 11:30* | *05/03/23 14:55* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | mg/Kg | | | 05/03/23 15:25 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Client Sample ID: SS03

**Lab Sample ID: 890-4600-3**
**Matrix: Solid**
**Date Collected: 05/01/23 11:50**
**Date Received: 05/01/23 14:20**
**Sample Depth: 0.5'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.8 | U | 49.8 | | mg/Kg | | | 05/04/23 14:01 | 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 | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:58 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:58 | 1 |
| Total TPH | <49.8 | U | 49.8 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 23:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *95* | | *70 - 130* | *05/03/23 12:02* | *05/03/23 23:58* | *1* |
| *o-Terphenyl* | *72* | | *70 - 130* | *05/03/23 12:02* | *05/03/23 23:58* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **61.5** | | 4.99 | | mg/Kg | | | 05/04/23 05:53 | 1 |

## Client Sample ID: SS04

**Lab Sample ID: 890-4600-4**
**Matrix: Solid**
**Date Collected: 05/01/23 11:55**
**Date Received: 05/01/23 14:20**
**Sample Depth: 0.5'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/03/23 11:30 | 05/03/23 15:33 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/03/23 11:30 | 05/03/23 15:33 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/03/23 11:30 | 05/03/23 15:33 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 05/03/23 11:30 | 05/03/23 15:33 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/03/23 11:30 | 05/03/23 15:33 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 05/03/23 11:30 | 05/03/23 15:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *153* | *S1+* | *70 - 130* | *05/03/23 11:30* | *05/03/23 15:33* | *1* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* | *05/03/23 11:30* | *05/03/23 15:33* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 05/05/23 15:57 | 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 | | | 05/04/23 14:01 | 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 | | 05/03/23 12:02 | 05/04/23 00:20 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/03/23 12:02 | 05/04/23 00:20 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/03/23 12:02 | 05/04/23 00:20 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

**Client Sample ID: SS04**
**Date Collected: 05/01/23 11:55**
**Date Received: 05/01/23 14:20**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4600-4**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | 05/03/23 12:02 | 05/04/23 00:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *78* | | *70 - 130* | *05/03/23 12:02* | *05/04/23 00:20* | *1* |
| *o-Terphenyl* | *56* | *S1-* | *70 - 130* | *05/03/23 12:02* | *05/04/23 00:20* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **51.0** | | 4.99 | | mg/Kg | | | 05/04/23 05:59 | 1 |

# Surrogate Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

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

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | BFB1 | DFBZ1 |
| Lab Sample ID | Client Sample ID | (70-130) | (70-130) |
| 890-4587-A-1-E MS | Matrix Spike | 120 | 77 |
| 890-4587-A-1-F MSD | Matrix Spike Duplicate | 113 | 88 |
| 890-4600-1 | SS01 | 140 S1+ | 87 |
| 890-4600-2 | SS02 | 127 | 95 |
| 890-4600-3 | SS03 | 136 S1+ | 79 |
| 890-4600-4 | SS04 | 153 S1+ | 94 |
| LCS 880-52289/1-A | Lab Control Sample | 117 | 92 |
| LCSD 880-52289/2-A | Lab Control Sample Dup | 112 | 104 |
| MB 880-52289/5-A | Method Blank | 70 | 82 |
| MB 880-52339/5-A | Method Blank | 68 S1- | 83 |

**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) | |
|---|---|---|---|
| | | 1CO1 | OTPH1 |
| Lab Sample ID | Client Sample ID | (70-130) | (70-130) |
| 890-4600-1 | SS01 | 85 | 62 S1- |
| 890-4600-2 | SS02 | 85 | 61 S1- |
| 890-4600-3 | SS03 | 95 | 72 |
| 890-4600-4 | SS04 | 78 | 56 S1- |
| 890-4603-A-19-C MS | Matrix Spike | 89 | 63 S1- |
| 890-4603-A-19-D MSD | Matrix Spike Duplicate | 86 | 60 S1- |
| LCS 880-52499/2-A | Lab Control Sample | 87 | 66 S1- |
| LCSD 880-52499/3-A | Lab Control Sample Dup | 95 | 72 |
| MB 880-52499/1-A | Method Blank | 121 | 106 |

**Surrogate Legend**

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

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

**Lab Sample ID: MB 880-52289/5-A**
**Matrix: Solid**
**Analysis Batch: 52362**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 52289**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/01/23 11:17 | 05/03/23 05:20 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/01/23 11:17 | 05/03/23 05:20 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/01/23 11:17 | 05/03/23 05:20 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 05/01/23 11:17 | 05/03/23 05:20 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/01/23 11:17 | 05/03/23 05:20 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/01/23 11:17 | 05/03/23 05:20 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *70* | | *70 - 130* | *05/01/23 11:17* | *05/03/23 05:20* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *05/01/23 11:17* | *05/03/23 05:20* | *1* |

**Lab Sample ID: LCS 880-52289/1-A**
**Matrix: Solid**
**Analysis Batch: 52362**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 52289**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1195 | | mg/Kg | | 119 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1194 | | mg/Kg | | 119 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1056 | | mg/Kg | | 106 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.200 | 0.2132 | | mg/Kg | | 107 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1059 | | mg/Kg | | 106 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *117* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* |

**Lab Sample ID: LCSD 880-52289/2-A**
**Matrix: Solid**
**Analysis Batch: 52362**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 52289**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1247 | | mg/Kg | | 125 | 70 - 130 | 4 | 35 |
| Toluene | | | 0.100 | 0.1244 | | mg/Kg | | 124 | 70 - 130 | 4 | 35 |
| Ethylbenzene | | | 0.100 | 0.1055 | | mg/Kg | | 105 | 70 - 130 | 0 | 35 |
| m-Xylene & p-Xylene | | | 0.200 | 0.2008 | | mg/Kg | | 100 | 70 - 130 | 6 | 35 |
| o-Xylene | | | 0.100 | 0.1050 | | mg/Kg | | 105 | 70 - 130 | 1 | 35 |

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

**Lab Sample ID: 890-4587-A-1-E MS**
**Matrix: Solid**
**Analysis Batch: 52362**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 52289**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U F1 | 0.0998 | <0.00200 | U F1 | mg/Kg | | 2 | 70 - 130 | | |
| Toluene | <0.00198 | U F1 | 0.0998 | <0.00200 | U F1 | mg/Kg | | 0 | 70 - 130 | | |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

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

**Lab Sample ID: 890-4587-A-1-E MS**
**Matrix: Solid**
**Analysis Batch: 52362**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 52289**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00198 | U F1 F2 | 0.0998 | 0.002590 | F1 | mg/Kg | | 3 | 70 - 130 |
| m-Xylene & p-Xylene | <0.00396 | U F1 F2 | 0.200 | 0.004991 | F1 | mg/Kg | | 3 | 70 - 130 |
| o-Xylene | <0.00198 | U F1 F2 | 0.0998 | 0.002593 | F1 | mg/Kg | | 3 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *77* | | *70 - 130* |

**Lab Sample ID: 890-4587-A-1-F MSD**
**Matrix: Solid**
**Analysis Batch: 52362**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 52289**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U F1 | 0.100 | <0.00201 | U F1 | mg/Kg | | 1 | 70 - 130 | 28 | 35 |
| Toluene | <0.00198 | U F1 | 0.100 | <0.00201 | U F1 | mg/Kg | | 0 | 70 - 130 | NC | 35 |
| Ethylbenzene | <0.00198 | U F1 F2 | 0.100 | <0.00201 | U F1 F2 | mg/Kg | | 0.6 | 70 - 130 | 122 | 35 |
| m-Xylene & p-Xylene | <0.00396 | U F1 F2 | 0.201 | <0.00402 | U F1 F2 | mg/Kg | | 0.7 | 70 - 130 | 108 | 35 |
| o-Xylene | <0.00198 | U F1 F2 | 0.100 | <0.00201 | U F1 F2 | mg/Kg | | 1 | 70 - 130 | 71 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *88* | | *70 - 130* |

**Lab Sample ID: MB 880-52339/5-A**
**Matrix: Solid**
**Analysis Batch: 52362**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 52339**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | mg/Kg | | 05/01/23 15:45 | 05/02/23 15:51 | 1 |
| Toluene | <0.00200 | U | 0.00200 | mg/Kg | | 05/01/23 15:45 | 05/02/23 15:51 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | mg/Kg | | 05/01/23 15:45 | 05/02/23 15:51 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | mg/Kg | | 05/01/23 15:45 | 05/02/23 15:51 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | mg/Kg | | 05/01/23 15:45 | 05/02/23 15:51 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | mg/Kg | | 05/01/23 15:45 | 05/02/23 15:51 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *68* | *S1-* | *70 - 130* | *05/01/23 15:45* | *05/02/23 15:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *83* | | *70 - 130* | *05/01/23 15:45* | *05/02/23 15:51* | *1* |

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

**Lab Sample ID: MB 880-52499/1-A**
**Matrix: Solid**
**Analysis Batch: 52451**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 52499**

| 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 | | 05/03/23 12:02 | 05/03/23 21:05 | 1 |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

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

**Lab Sample ID: MB 880-52499/1-A**
**Matrix: Solid**
**Analysis Batch: 52451**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 52499**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 21:05 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 21:05 | 1 |
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | 05/03/23 12:02 | 05/03/23 21:05 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *121* | | *70 - 130* | *05/03/23 12:02* | *05/03/23 21:05* | *1* |
| *o-Terphenyl* | *106* | | *70 - 130* | *05/03/23 12:02* | *05/03/23 21:05* | *1* |

**Lab Sample ID: LCS 880-52499/2-A**
**Matrix: Solid**
**Analysis Batch: 52451**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 52499**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 960.0 | | mg/Kg | | 96 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 982.8 | | mg/Kg | | 98 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *87* | | *70 - 130* |
| *o-Terphenyl* | *66* | *S1-* | *70 - 130* |

**Lab Sample ID: LCSD 880-52499/3-A**
**Matrix: Solid**
**Analysis Batch: 52451**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 52499**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 992.4 | | mg/Kg | | 99 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1029 | | mg/Kg | | 103 | 70 - 130 | 5 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *95* | | *70 - 130* |
| *o-Terphenyl* | *72* | | *70 - 130* |

**Lab Sample ID: 890-4603-A-19-C MS**
**Matrix: Solid**
**Analysis Batch: 52451**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 52499**

| 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 | 997 | 789.2 | | mg/Kg | | 77 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | 80.7 | F1 | 997 | 555.1 | F1 | mg/Kg | | 48 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *89* | | *70 - 130* |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

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

**Lab Sample ID: 890-4603-A-19-C MS**
**Matrix: Solid**
**Analysis Batch: 52451**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 52499**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| o-Terphenyl | 63 | S1- | 70 - 130 |

**Lab Sample ID: 890-4603-A-19-D MSD**
**Matrix: Solid**
**Analysis Batch: 52451**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 52499**

| 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 | 999 | 760.6 | | mg/Kg | | 74 | 70 - 130 | 4 | 20 |
| Diesel Range Organics (Over C10-C28) | 80.7 | F1 | 999 | 535.7 | F1 | mg/Kg | | 46 | 70 - 130 | 4 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 86 | | 70 - 130 |
| o-Terphenyl | 60 | S1- | 70 - 130 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-52486/1-A**
**Matrix: Solid**
**Analysis Batch: 52596**

**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 | | | 05/04/23 04:06 | 1 |

**Lab Sample ID: LCS 880-52486/2-A**
**Matrix: Solid**
**Analysis Batch: 52596**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 235.8 | | mg/Kg | | 94 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-52486/3-A**
**Matrix: Solid**
**Analysis Batch: 52596**

**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 | 236.8 | | mg/Kg | | 95 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 890-4600-2 MS**
**Matrix: Solid**
**Analysis Batch: 52596**

**Client Sample ID: SS02**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 49.5 | | 249 | 310.0 | | mg/Kg | | 105 | 90 - 110 | | |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 890-4600-2 MSD**
**Matrix: Solid**
**Analysis Batch: 52596**

**Client Sample ID: SS02**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 49.5 | | 249 | 311.3 | | mg/Kg | | 105 | 90 - 110 | 0 | 20 |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## GC VOA

### Prep Batch: 52289

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Total/NA | Solid | 5035 | |
| 890-4600-2 | SS02 | Total/NA | Solid | 5035 | |
| 890-4600-3 | SS03 | Total/NA | Solid | 5035 | |
| 890-4600-4 | SS04 | Total/NA | Solid | 5035 | |
| MB 880-52289/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-52289/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-52289/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 890-4587-A-1-E MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 890-4587-A-1-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Prep Batch: 52339

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-52339/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Analysis Batch: 52362

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Total/NA | Solid | 8021B | 52289 |
| 890-4600-2 | SS02 | Total/NA | Solid | 8021B | 52289 |
| 890-4600-3 | SS03 | Total/NA | Solid | 8021B | 52289 |
| 890-4600-4 | SS04 | Total/NA | Solid | 8021B | 52289 |
| MB 880-52289/5-A | Method Blank | Total/NA | Solid | 8021B | 52289 |
| MB 880-52339/5-A | Method Blank | Total/NA | Solid | 8021B | 52339 |
| LCS 880-52289/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 52289 |
| LCSD 880-52289/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 52289 |
| 890-4587-A-1-E MS | Matrix Spike | Total/NA | Solid | 8021B | 52289 |
| 890-4587-A-1-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 8021B | 52289 |

### Analysis Batch: 52553

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Total/NA | Solid | Total BTEX | |
| 890-4600-2 | SS02 | Total/NA | Solid | Total BTEX | |
| 890-4600-3 | SS03 | Total/NA | Solid | Total BTEX | |
| 890-4600-4 | SS04 | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Analysis Batch: 52451

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Total/NA | Solid | 8015B NM | 52499 |
| 890-4600-2 | SS02 | Total/NA | Solid | 8015B NM | 52499 |
| 890-4600-3 | SS03 | Total/NA | Solid | 8015B NM | 52499 |
| 890-4600-4 | SS04 | Total/NA | Solid | 8015B NM | 52499 |
| MB 880-52499/1-A | Method Blank | Total/NA | Solid | 8015B NM | 52499 |
| LCS 880-52499/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 52499 |
| LCSD 880-52499/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 52499 |
| 890-4603-A-19-C MS | Matrix Spike | Total/NA | Solid | 8015B NM | 52499 |
| 890-4603-A-19-D MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B NM | 52499 |

### Prep Batch: 52499

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## GC Semi VOA (Continued)

### Prep Batch: 52499 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-2 | SS02 | Total/NA | Solid | 8015NM Prep | |
| 890-4600-3 | SS03 | Total/NA | Solid | 8015NM Prep | |
| 890-4600-4 | SS04 | Total/NA | Solid | 8015NM Prep | |
| MB 880-52499/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-52499/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-52499/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-4603-A-19-C MS | Matrix Spike | Total/NA | Solid | 8015NM Prep | |
| 890-4603-A-19-D MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 52626

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Total/NA | Solid | 8015 NM | |
| 890-4600-2 | SS02 | Total/NA | Solid | 8015 NM | |
| 890-4600-3 | SS03 | Total/NA | Solid | 8015 NM | |
| 890-4600-4 | SS04 | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 52486

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Soluble | Solid | DI Leach | |
| 890-4600-2 | SS02 | Soluble | Solid | DI Leach | |
| 890-4600-3 | SS03 | Soluble | Solid | DI Leach | |
| 890-4600-4 | SS04 | Soluble | Solid | DI Leach | |
| MB 880-52486/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-52486/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-52486/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 890-4600-2 MS | SS02 | Soluble | Solid | DI Leach | |
| 890-4600-2 MSD | SS02 | Soluble | Solid | DI Leach | |

### Analysis Batch: 52596

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Soluble | Solid | 300.0 | 52486 |
| 890-4600-2 | SS02 | Soluble | Solid | 300.0 | 52486 |
| 890-4600-3 | SS03 | Soluble | Solid | 300.0 | 52486 |
| 890-4600-4 | SS04 | Soluble | Solid | 300.0 | 52486 |
| MB 880-52486/1-A | Method Blank | Soluble | Solid | 300.0 | 52486 |
| LCS 880-52486/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 52486 |
| LCSD 880-52486/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 52486 |
| 890-4600-2 MS | SS02 | Soluble | Solid | 300.0 | 52486 |
| 890-4600-2 MSD | SS02 | Soluble | Solid | 300.0 | 52486 |

# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Client Sample ID: SS01
**Date Collected: 05/01/23 11:35**
**Date Received: 05/01/23 14:20**

## Lab Sample ID: 890-4600-1
**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 | | | 5.02 g | 5 mL | 52289 | 05/03/23 11:17 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 52362 | 05/03/23 14:04 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 52553 | 05/03/23 15:25 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 52626 | 05/04/23 14:01 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 52499 | 05/03/23 12:02 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 52451 | 05/03/23 23:16 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 52486 | 05/03/23 10:38 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 52596 | 05/04/23 05:32 | SMC | EET MID |

## Client Sample ID: SS02
**Date Collected: 05/01/23 11:40**
**Date Received: 05/01/23 14:20**

## Lab Sample ID: 890-4600-2
**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 | 52289 | 05/03/23 11:17 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 52362 | 05/03/23 14:30 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 52553 | 05/03/23 15:25 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 52626 | 05/04/23 14:01 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 52499 | 05/03/23 12:02 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 52451 | 05/03/23 23:37 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 52486 | 05/03/23 10:38 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 52596 | 05/04/23 05:37 | SMC | EET MID |

## Client Sample ID: SS03
**Date Collected: 05/01/23 11:50**
**Date Received: 05/01/23 14:20**

## Lab Sample ID: 890-4600-3
**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 | | | 5.05 g | 5 mL | 52289 | 05/03/23 11:30 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 52362 | 05/03/23 14:55 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 52553 | 05/03/23 15:25 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 52626 | 05/04/23 14:01 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 52499 | 05/03/23 12:02 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 52451 | 05/03/23 23:58 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 52486 | 05/03/23 10:38 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 52596 | 05/04/23 05:53 | SMC | EET MID |

## Client Sample ID: SS04
**Date Collected: 05/01/23 11:55**
**Date Received: 05/01/23 14:20**

## Lab Sample ID: 890-4600-4
**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 | | | 4.98 g | 5 mL | 52289 | 05/03/23 11:30 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 52362 | 05/03/23 15:33 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 52553 | 05/05/23 15:57 | SM | EET MID |

# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Client Sample ID: SS04

**Date Collected: 05/01/23 11:55**
**Date Received: 05/01/23 14:20**

## Lab Sample ID: 890-4600-4

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 52626 | 05/04/23 14:01 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 52499 | 05/03/23 12:02 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 52451 | 05/04/23 00:20 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 52486 | 05/03/23 10:38 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 52596 | 05/04/23 05:59 | SMC | 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: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

## Laboratory: Eurofins Midland

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

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

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

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

# Method Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

| 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: Warbler State Com 2Y

Job ID: 890-4600-1
SDG: 03D2024186

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Depth |
|---|---|---|---|---|---|
| 890-4600-1 | SS01 | Solid | 05/01/23 11:35 | 05/01/23 14:20 | 0.5' |
| 890-4600-2 | SS02 | Solid | 05/01/23 11:40 | 05/01/23 14:20 | 0.5' |
| 890-4600-3 | SS03 | Solid | 05/01/23 11:50 | 05/01/23 14:20 | 0.5' |
| 890-4600-4 | SS04 | Solid | 05/01/23 11:55 | 05/01/23 14:20 | 0.5' |

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# 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 1 of 1

| | | | |
|---|---|---|---|
| Project Manager: | Hadlie Green | Bill to: (if different) | Kalei Jennings |
| Company Name: | Ensolum LLC | Company Name: | Ensolum LLC |
| Address: | 3122 National Parks Hwy | Address: | |
| City, State ZIP: | Carlsbad, NM 88220 | City, State ZIP: | |
| Phone: | 432-557-8895 | Email: | hgreen@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: | Warbler State Com 2Y | Turn Around | |
| Project Number: | 03D2024186 | ☒ Routine ☐ Rush | |
| Project Location: | 32.4565, -103.5793 | Due Date: | 5 days |
| Sampler's Name: | Ronni Hayes | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | (Yes) No | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | TNN 007 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.2 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 5.2 |
| Total Containers: | | Corrected Temperature: | 5.0 |

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | BTEX | TPH | Cl- |
|---|---|---|---|---|---|---|---|---|---|
| SS01 | S | 5/1/23 | 1135 | 0.5' | G | 1 | x | x | x |
| SS02 | ↓ | ↓ | 1140 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| SS03 | | | 1150 | | | | | | |
| SS04 | | | 1155 | | | | | | |

AM 5/1/23

ANALYSIS REQUEST

890-4600 Chain of Custody

**Preservative Codes**

None: NO DI Water: $H_2O$
Cool: Cool MeOH: Me
HCL: HC $HNO_3$: HN
$H_2SO_4$: $H_2$ NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

**Sample Comments**

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 $SiO_2$ Na Sr Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471



| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 AM | Amanda Stuff | 5/1/23 1420 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date 08/25/2020 Rev. 2020.2

# Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4600-1
SDG Number: 03D2024186

**Login Number: 4600**
**List Number: 1**
**Creator: Stutzman, Amanda**

**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: 890-4600-1
SDG Number: 03D2024186

**Login Number: 4600**
**List Number: 2**
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**
**List Creation: 05/03/23 10:57 AM**

| 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 | |

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 5/31/2023 9:55:06 AM

## JOB DESCRIPTION

Warbler State Com 2Y
SDG NUMBER 32.4565,-103.5795

## JOB NUMBER

890-4726-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.





my EOL

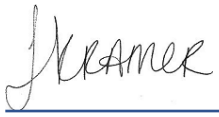
# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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
5/31/2023 9:55:06 AM

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

Client: Ensolum
Project/Site: Warbler State Com 2Y

Laboratory Job ID: 890-4726-1
SDG: 32.4565,-103.5795

# Table of Contents

# Definitions/Glossary

Client: Ensolum Job ID: 890-4726-1
Project/Site: Warbler State Com 2Y SDG: 32.4565,-103.5795

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| *+ | LCS and/or LCSD is outside acceptance limits, high biased. |
| 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. |
| S1+ | Surrogate recovery exceeds control limits, high biased. |
| U | Indicates the analyte was analyzed for but not detected. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| 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: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Job ID: 890-4726-1

**Laboratory: Eurofins Carlsbad**

**Narrative**

**Job Narrative**
**890-4726-1**

**Receipt**
The samples were received on 5/23/2023 4:53 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 1.0°C

**Receipt Exceptions**
The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-4726-1), FS02 (890-4726-2), FS03 (890-4726-3), FS04 (890-4726-4), FS05 (890-4726-5), SS05 (890-4726-6), SS05A (890-4726-7), SS06 (890-4726-8), SS06A (890-4726-9), SS07 (890-4726-10), SS07A (890-4726-11), SS08 (890-4726-12), SS08A (890-4726-13), SS09 (890-4726-14), SS09A (890-4726-15), SS10 (890-4726-16), SS10A (890-4726-17), SS11 (890-4726-18), SS11A (890-4726-19), SS12 (890-4726-20), SS12A (890-4726-21), SS13 (890-4726-22), SS13A (890-4726-23), SS14 (890-4726-24) and SS14A (890-4726-25).

**GC VOA**
Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 880-54206 recovered outside control limits for the following analytes: Benzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (CCV 880-54206/11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-54098 and analytical batch 880-54206 was outside the upper control limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54206 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-54206/6). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-54265/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-54265 and analytical batch 880-54206 recovered outside control limits for the following analytes: Benzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-54265 and analytical batch 880-54206 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-54318/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-54318 and analytical batch 880-54336 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-54318 and analytical batch 880-54336 recovered outside control limits for the following analytes: Benzene.

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

# Case Narrative

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Job ID: 890-4726-1 (Continued)

### Laboratory: Eurofins Carlsbad (Continued)

**GC Semi VOA**

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-54161 and analytical batch 880-54121 was outside the upper control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-54161 and analytical batch 880-54121 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-54121 recovered below the lower control limit for Diesel Range Organics (Over C10-C28). An acceptable CCV was ran within the 12 hour window therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-54121/31).

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS02 (890-4726-2), SS05A (890-4726-7) and SS08 (890-4726-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-54172 and analytical batch 880-54197 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-54197/20). 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.

**HPLC/IC**

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-54140 and analytical batch 880-54186 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: FS01

**Lab Sample ID: 890-4726-1**
**Matrix: Solid**
**Date Collected: 05/23/23 10:55**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U *+ F1 | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 23:53 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 23:53 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 23:53 | 1 |
| m-Xylene & p-Xylene | <0.00403 | U | 0.00403 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 23:53 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 23:53 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 23:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *83* | | *70 - 130* | *05/26/23 15:50* | *05/27/23 23:53* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *05/26/23 15:50* | *05/27/23 23:53* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 11:01 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 11:01 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 11:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *103* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 11:01* | *1* |
| *o-Terphenyl* | *112* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 11:01* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **106** | | 5.01 | | mg/Kg | | | 05/25/23 21:31 | 1 |

## Client Sample ID: FS02

**Lab Sample ID: 890-4726-2**
**Matrix: Solid**
**Date Collected: 05/23/23 11:00**
**Date Received: 05/23/23 16:53**
**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 | | 05/26/23 15:50 | 05/28/23 00:20 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:20 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:20 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:20 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:20 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 00:20* | *1* |

Eurofins Carlsbad

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: FS02

**Date Collected: 05/23/23 11:00**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4726-2**
**Matrix: Solid**

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

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 00:20* | *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 | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | mg/Kg | | 05/25/23 13:43 | 05/26/23 12:38 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | mg/Kg | | 05/25/23 13:43 | 05/26/23 12:38 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | mg/Kg | | 05/25/23 13:43 | 05/26/23 12:38 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *123* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 12:38* | *1* |
| *o-Terphenyl* | *134* | *S1+* | *70 - 130* | *05/25/23 13:43* | *05/26/23 12:38* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Chloride** | **137** | | 4.97 | mg/Kg | | | 05/25/23 21:47 | 1 |

## Client Sample ID: FS03

**Date Collected: 05/23/23 11:20**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

**Lab Sample ID: 890-4726-3**
**Matrix: Solid**

### 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 | | 05/26/23 15:50 | 05/28/23 00:46 | 1 |
| Toluene | <0.00198 | U | 0.00198 | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:46 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:46 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U | 0.00396 | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:46 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:46 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | mg/Kg | | 05/26/23 15:50 | 05/28/23 00:46 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 00:46* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 00:46* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | mg/Kg | | | 05/31/23 10:19 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.8 | U | 49.8 | mg/Kg | | | 05/30/23 15:35 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: FS03

**Lab Sample ID: 890-4726-3**
**Matrix: Solid**
**Date Collected: 05/23/23 11:20**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

### 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 | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:00 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:00 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *121* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 13:00* | *1* |
| *o-Terphenyl* | *128* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 13:00* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **62.3** | | 4.98 | | mg/Kg | | | 05/25/23 21:52 | 1 |

## Client Sample ID: FS04

**Lab Sample ID: 890-4726-4**
**Matrix: Solid**
**Date Collected: 05/23/23 12:50**
**Date Received: 05/23/23 16:53**
**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 | | 05/26/23 15:50 | 05/28/23 01:13 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:13 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:13 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:13 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:13 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *84* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 01:13* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 01:13* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 05/31/23 10:19 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.8 | U | 49.8 | | mg/Kg | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:22 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:22 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *103* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 13:22* | *1* |
| *o-Terphenyl* | *110* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 13:22* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: FS04

**Lab Sample ID: 890-4726-4**
**Matrix: Solid**
**Date Collected: 05/23/23 12:50**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 71.2 | | 4.98 | | mg/Kg | | | 05/25/23 21:58 | 1 |

## Client Sample ID: FS05

**Lab Sample ID: 890-4726-5**
**Matrix: Solid**
**Date Collected: 05/23/23 12:55**
**Date Received: 05/23/23 16:53**
**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 | | 05/26/23 15:50 | 05/28/23 01:39 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:39 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:39 | 1 |
| m-Xylene & p-Xylene | <0.00397 | U | 0.00397 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:39 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:39 | 1 |
| Xylenes, Total | <0.00397 | U | 0.00397 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 01:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 01:39* | *1* |
| *1,4-Difluorobenzene (Surr)* | *105* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 01:39* | *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 | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:44 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:44 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 13:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *113* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 13:44* | *1* |
| *o-Terphenyl* | *121* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 13:44* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 41.9 | | 5.02 | | mg/Kg | | | 05/25/23 22:03 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS05

**Date Collected: 05/23/23 10:40**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4726-6**
**Matrix: Solid**

### 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 | | 05/26/23 15:50 | 05/28/23 02:06 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:06 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:06 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:06 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:06 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 02:06* | *1* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 02:06* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:06 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:06 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *114* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 14:06* | *1* |
| *o-Terphenyl* | *120* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 14:06* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **55.1** | | 5.03 | | mg/Kg | | | 05/25/23 22:19 | 1 |

## Client Sample ID: SS05A

**Date Collected: 05/23/23 10:45**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

**Lab Sample ID: 890-4726-7**
**Matrix: Solid**

### 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 | | 05/26/23 15:50 | 05/28/23 02:32 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:32 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:32 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:32 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:32 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *92* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 02:32* | *1* |

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# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS05A

**Date Collected: 05/23/23 10:45**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

## Lab Sample ID: 890-4726-7

**Matrix: Solid**

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

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 02:32* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:28 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:28 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *128* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 14:28* | *1* |
| *o-Terphenyl* | *136* | *S1+* | *70 - 130* | *05/25/23 13:43* | *05/26/23 14:28* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Chloride** | **65.5** | | 5.04 | mg/Kg | | | 05/25/23 22:25 | 1 |

## Client Sample ID: SS06

**Date Collected: 05/23/23 12:05**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-4726-8

**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *+ | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:59 | 1 |
| Toluene | <0.00201 | U | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:59 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:59 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:59 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:59 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | mg/Kg | | 05/26/23 15:50 | 05/28/23 02:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 02:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 02:59* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS06

**Date Collected: 05/23/23 12:05**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4726-8**
**Matrix: Solid**

### 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 | | 05/25/23 13:43 | 05/26/23 14:50 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:50 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 14:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *120* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 14:50* | *1* |
| *o-Terphenyl* | *124* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 14:50* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **67.1** | | 4.99 | | mg/Kg | | | 05/25/23 22:30 | 1 |

## Client Sample ID: SS06A

**Date Collected: 05/23/23 12:10**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

**Lab Sample ID: 890-4726-9**
**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 | | 05/26/23 15:50 | 05/28/23 03:26 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:26 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:26 | 1 |
| m-Xylene & p-Xylene | <0.00404 | U | 0.00404 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:26 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:26 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 03:26* | *1* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 03:26* | *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 | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 15:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 15:13 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 15:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *111* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 15:13* | *1* |
| *o-Terphenyl* | *117* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 15:13* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS06A

**Lab Sample ID: 890-4726-9**
**Matrix: Solid**
**Date Collected: 05/23/23 12:10**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 61.1 | | 4.96 | | mg/Kg | | | 05/25/23 22:35 | 1 |

## Client Sample ID: SS07

**Lab Sample ID: 890-4726-10**
**Matrix: Solid**
**Date Collected: 05/23/23 12:30**
**Date Received: 05/23/23 16:53**
**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 | | 05/26/23 15:50 | 05/28/23 03:53 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:53 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:53 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:53 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:53 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 03:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *91* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 03:53* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 03:53* | *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 | | | 05/31/23 10:19 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.8 | U | 49.8 | | mg/Kg | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 15:35 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 15:35 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 15:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *106* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 15:35* | *1* |
| *o-Terphenyl* | *114* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 15:35* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 48.2 | | 5.05 | | mg/Kg | | | 05/25/23 22:41 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS07A

**Lab Sample ID: 890-4726-11**
**Matrix: Solid**
**Date Collected: 05/23/23 12:35**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

### 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 | | 05/26/23 15:50 | 05/28/23 05:40 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 05:40 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 05:40 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 05:40 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 05:40 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 05:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *82* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 05:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 05:40* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 16:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 16:48 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 16:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *119* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 16:48* | *1* |
| *o-Terphenyl* | *125* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 16:48* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **50.7** | | 5.05 | | mg/Kg | | | 05/25/23 22:46 | 1 |

## Client Sample ID: SS08

**Lab Sample ID: 890-4726-12**
**Matrix: Solid**
**Date Collected: 05/23/23 13:05**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:06 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:06 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:06 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:06 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:06 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *91* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 06:06* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS08

**Date Collected: 05/23/23 13:05**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4726-12**
**Matrix: Solid**

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

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 06:06* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | mg/Kg | | | 05/31/23 10:19 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **59.9** | | 49.9 | mg/Kg | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:10 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **59.9** | | 49.9 | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:10 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *121* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 17:10* | *1* |
| *o-Terphenyl* | *131* | *S1+* | *70 - 130* | *05/25/23 13:43* | *05/26/23 17:10* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Chloride** | **145** | | 4.98 | mg/Kg | | | 05/25/23 23:02 | 1 |

## Client Sample ID: SS08A

**Date Collected: 05/23/23 13:10**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

**Lab Sample ID: 890-4726-13**
**Matrix: Solid**

### 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 | | 05/26/23 15:50 | 05/28/23 06:33 | 1 |
| Toluene | <0.00199 | U | 0.00199 | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:33 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:33 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:33 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:33 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | mg/Kg | | 05/26/23 15:50 | 05/28/23 06:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 06:33* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 06:33* | *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 | | | 05/31/23 10:19 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **58.4** | | 50.0 | mg/Kg | | | 05/30/23 15:35 | 1 |

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# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS08A

**Lab Sample ID: 890-4726-13**
**Matrix: Solid**
**Date Collected: 05/23/23 13:10**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

### 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 | | 05/25/23 13:43 | 05/26/23 17:32 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **58.4** | | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:32 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *110* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 17:32* | *1* |
| *o-Terphenyl* | *117* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 17:32* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **242** | | 4.97 | | mg/Kg | | | 05/25/23 23:07 | 1 |

## Client Sample ID: SS09

**Lab Sample ID: 890-4726-14**
**Matrix: Solid**
**Date Collected: 05/23/23 13:15**
**Date Received: 05/23/23 16:53**
**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 | | 05/26/23 15:50 | 05/28/23 07:00 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:00 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:00 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U | 0.00401 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:00 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:00 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 07:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 07:00* | *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 | | | 05/31/23 10:19 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.8 | U | 49.8 | | mg/Kg | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:54 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:54 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 17:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *110* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 17:54* | *1* |
| *o-Terphenyl* | *119* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 17:54* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS09

**Date Collected: 05/23/23 13:15**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4726-14**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 78.2 | | 5.01 | | mg/Kg | | | 05/25/23 23:24 | 1 |

## Client Sample ID: SS09A

**Date Collected: 05/23/23 13:20**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

**Lab Sample ID: 890-4726-15**
**Matrix: Solid**

### 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 | | 05/26/23 15:50 | 05/28/23 07:28 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:28 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:28 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:28 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:28 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *83* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 07:28* | *1* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 07:28* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:15 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:15 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *108* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 18:15* | *1* |
| *o-Terphenyl* | *116* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 18:15* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 60.2 | | 5.04 | | mg/Kg | | | 05/25/23 23:29 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS10

**Lab Sample ID: 890-4726-16**
**Matrix: Solid**
**Date Collected: 05/23/23 13:25**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

### 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 | | 05/26/23 15:50 | 05/28/23 07:55 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:55 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:55 | 1 |
| m-Xylene & p-Xylene | <0.00403 | U | 0.00403 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:55 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:55 | 1 |
| Xylenes, Total | <0.00403 | U | 0.00403 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 07:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *84* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 07:55* | *1* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 07:55* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00403 | U | 0.00403 | | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:37 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:37 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *121* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 18:37* | *1* |
| *o-Terphenyl* | *127* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 18:37* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **73.0** | | 5.00 | | mg/Kg | | | 05/25/23 23:34 | 1 |

## Client Sample ID: SS10A

**Lab Sample ID: 890-4726-17**
**Matrix: Solid**
**Date Collected: 05/23/23 13:30**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

### 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 | | 05/26/23 15:50 | 05/28/23 08:23 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:23 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:23 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U | 0.00396 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:23 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:23 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:23 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *94* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 08:23* | *1* |

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# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS10A

**Lab Sample ID: 890-4726-17**
**Matrix: Solid**
**Date Collected: 05/23/23 13:30**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

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

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 08:23* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:58 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:58 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | mg/Kg | | 05/25/23 13:43 | 05/26/23 18:58 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *108* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 18:58* | *1* |
| *o-Terphenyl* | *114* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 18:58* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Chloride** | **105** | | 5.05 | mg/Kg | | | 05/25/23 23:40 | 1 |

## Client Sample ID: SS11

**Lab Sample ID: 890-4726-18**
**Matrix: Solid**
**Date Collected: 05/23/23 13:35**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *+ | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:50 | 1 |
| Toluene | <0.00201 | U | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:50 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:50 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:50 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:50 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | mg/Kg | | 05/26/23 15:50 | 05/28/23 08:50 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 08:50* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 08:50* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS11

**Lab Sample ID: 890-4726-18**
**Matrix: Solid**
**Date Collected: 05/23/23 13:35**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

### 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 | | 05/25/23 13:43 | 05/26/23 19:20 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 19:20 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 19:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *108* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 19:20* | *1* |
| *o-Terphenyl* | *112* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 19:20* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **64.1** | | 5.02 | | mg/Kg | | | 05/25/23 23:45 | 1 |

## Client Sample ID: SS11A

**Lab Sample ID: 890-4726-19**
**Matrix: Solid**
**Date Collected: 05/23/23 13:40**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *+ | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:18 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:18 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:18 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:18 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:18 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 09:18* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 09:18* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 19:41 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 19:41 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 19:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *114* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 19:41* | *1* |
| *o-Terphenyl* | *119* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 19:41* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS11A

**Lab Sample ID: 890-4726-19**
**Matrix: Solid**
**Date Collected: 05/23/23 13:40**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 84.1 | | 4.98 | | mg/Kg | | | 05/25/23 23:50 | 1 |

## Client Sample ID: SS12

**Lab Sample ID: 890-4726-20**
**Matrix: Solid**
**Date Collected: 05/23/23 13:45**
**Date Received: 05/23/23 16:53**
**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 | | 05/26/23 15:50 | 05/28/23 09:45 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:45 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:45 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:45 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:45 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 05/26/23 15:50 | 05/28/23 09:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 09:45* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *05/26/23 15:50* | *05/28/23 09:45* | *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 | | | 05/31/23 10:19 | 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 | | | 05/30/23 15:35 | 1 |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 20:03 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 20:03 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 20:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *111* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 20:03* | *1* |
| *o-Terphenyl* | *117* | | *70 - 130* | *05/25/23 13:43* | *05/26/23 20:03* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 189 | | 4.98 | | mg/Kg | | | 05/25/23 23:56 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS12A

**Date Collected: 05/23/23 13:50**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

**Lab Sample ID: 890-4726-21**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U *+ F1 | 0.00199 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:32 | 1 |
| **Toluene** | **0.00436** | | 0.00199 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:32 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:32 | 1 |
| **m-Xylene & p-Xylene** | **0.00467** | | 0.00398 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:32 | 1 |
| **o-Xylene** | **0.00237** | | 0.00199 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:32 | 1 |
| **Xylenes, Total** | **0.00704** | | 0.00398 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *82* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 12:32* | *1* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 12:32* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total BTEX** | **0.0114** | | 0.00398 | | mg/Kg | | | 05/31/23 10:24 | 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 | | | 05/26/23 09:04 | 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 | | 05/25/23 12:10 | 05/25/23 19:30 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U *1 | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 19:30 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 19:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *97* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 19:30* | *1* |
| *o-Terphenyl* | *112* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 19:30* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **112** | | 4.97 | | mg/Kg | | | 05/26/23 07:12 | 1 |

## Client Sample ID: SS13

**Date Collected: 05/23/23 13:55**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4726-22**
**Matrix: Solid**

### 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 | | 05/27/23 12:55 | 05/30/23 12:58 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:58 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:58 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U | 0.00396 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:58 | 1 |
| **o-Xylene** | **0.00213** | | 0.00198 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:58 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 12:58* | *1* |

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# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS13

**Date Collected: 05/23/23 13:55**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-4726-22**
**Matrix: Solid**

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

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 12:58* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | mg/Kg | | | 05/31/23 10:24 | 1 |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.8 | U | 49.8 | mg/Kg | | | 05/26/23 09:04 | 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 | <49.8 | U | 49.8 | mg/Kg | | 05/25/23 12:10 | 05/25/23 19:51 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U *1 | 49.8 | mg/Kg | | 05/25/23 12:10 | 05/25/23 19:51 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | mg/Kg | | 05/25/23 12:10 | 05/25/23 19:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *116* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 19:51* | *1* |
| *o-Terphenyl* | *129* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 19:51* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Chloride** | **67.8** | | 5.03 | mg/Kg | | | 05/26/23 07:17 | 1 |

## Client Sample ID: SS13A

**Date Collected: 05/23/23 14:00**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

**Lab Sample ID: 890-4726-23**
**Matrix: Solid**

### 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 | | 05/27/23 12:55 | 05/30/23 13:25 | 1 |
| Toluene | <0.00200 | U | 0.00200 | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:25 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:25 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:25 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:25 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 13:25* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 13:25* | *1* |

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

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00400 | U | 0.00400 | mg/Kg | | | 05/31/23 10:24 | 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 | | | 05/26/23 09:04 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS13A

**Lab Sample ID: 890-4726-23**
**Matrix: Solid**
**Date Collected: 05/23/23 14:00**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

### 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 | | 05/25/23 12:10 | 05/25/23 20:12 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U *1 | 49.9 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 20:12 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 20:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *103* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 20:12* | *1* |
| *o-Terphenyl* | *117* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 20:12* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **115** | | 4.99 | | mg/Kg | | | 05/26/23 07:22 | 1 |

## Client Sample ID: SS14

**Lab Sample ID: 890-4726-24**
**Matrix: Solid**
**Date Collected: 05/23/23 14:05**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

### 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 | | 05/27/23 12:55 | 05/30/23 13:52 | 1 |
| Toluene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:52 | 1 |
| Ethylbenzene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:52 | 1 |
| m-Xylene & p-Xylene | <0.00404 | U | 0.00404 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:52 | 1 |
| o-Xylene | <0.00202 | U | 0.00202 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:52 | 1 |
| Xylenes, Total | <0.00404 | U | 0.00404 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 13:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *92* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 13:52* | *1* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 13:52* | *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 | | | 05/31/23 10:24 | 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 | | | 05/26/23 09:04 | 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 | | 05/25/23 12:10 | 05/25/23 20:33 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U *1 | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 20:33 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 20:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *97* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 20:33* | *1* |
| *o-Terphenyl* | *109* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 20:33* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS14

**Lab Sample ID: 890-4726-24**
**Matrix: Solid**
**Date Collected: 05/23/23 14:05**
**Date Received: 05/23/23 16:53**
**Sample Depth: 0.5'**

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **127** | | 4.98 | | mg/Kg | | | 05/26/23 07:28 | 1 |

## Client Sample ID: SS14A

**Lab Sample ID: 890-4726-25**
**Matrix: Solid**
**Date Collected: 05/23/23 14:10**
**Date Received: 05/23/23 16:53**
**Sample Depth: 1.0'**

### 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 | | 05/27/23 12:55 | 05/30/23 14:19 | 1 |
| **Toluene** | **0.00658** | | 0.00200 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 14:19 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 14:19 | 1 |
| **m-Xylene & p-Xylene** | **0.00544** | | 0.00401 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 14:19 | 1 |
| **o-Xylene** | **0.00347** | | 0.00200 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 14:19 | 1 |
| **Xylenes, Total** | **0.00891** | | 0.00401 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 14:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *91* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 14:19* | *1* |
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 14:19* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total BTEX** | **0.0155** | | 0.00401 | | mg/Kg | | | 05/31/23 10:24 | 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 | | | 05/26/23 09:04 | 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 | | 05/25/23 12:10 | 05/25/23 20:54 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U *1 | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 20:54 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 20:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *100* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 20:54* | *1* |
| *o-Terphenyl* | *114* | | *70 - 130* | *05/25/23 12:10* | *05/25/23 20:54* | *1* |

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

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **193** | | 5.01 | | mg/Kg | | | 05/26/23 07:33 | 1 |

# Surrogate Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## 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) |
| 890-4726-1 | FS01 | 83 | 99 |
| 890-4726-1 MS | FS01 | 78 | 122 |
| 890-4726-1 MSD | FS01 | 86 | 121 |
| 890-4726-2 | FS02 | 88 | 104 |
| 890-4726-3 | FS03 | 87 | 98 |
| 890-4726-4 | FS04 | 84 | 105 |
| 890-4726-5 | FS05 | 94 | 105 |
| 890-4726-6 | SS05 | 87 | 102 |
| 890-4726-7 | SS05A | 92 | 103 |
| 890-4726-8 | SS06 | 87 | 100 |
| 890-4726-9 | SS06A | 87 | 104 |
| 890-4726-10 | SS07 | 91 | 103 |
| 890-4726-11 | SS07A | 82 | 98 |
| 890-4726-12 | SS08 | 91 | 96 |
| 890-4726-13 | SS08A | 87 | 98 |
| 890-4726-14 | SS09 | 87 | 106 |
| 890-4726-15 | SS09A | 83 | 109 |
| 890-4726-16 | SS10 | 84 | 107 |
| 890-4726-17 | SS10A | 94 | 101 |
| 890-4726-18 | SS11 | 89 | 96 |
| 890-4726-19 | SS11A | 90 | 97 |
| 890-4726-20 | SS12 | 93 | 101 |
| 890-4726-21 | SS12A | 82 | 89 |
| 890-4726-21 MS | SS12A | 90 | 109 |
| 890-4726-21 MSD | SS12A | 89 | 124 |
| 890-4726-22 | SS13 | 86 | 87 |
| 890-4726-23 | SS13A | 86 | 93 |
| 890-4726-24 | SS14 | 92 | 101 |
| 890-4726-25 | SS14A | 91 | 87 |
| LCS 880-54265/1-A | Lab Control Sample | 84 | 118 |
| LCS 880-54318/1-A | Lab Control Sample | 84 | 86 |
| LCSD 880-54265/2-A | Lab Control Sample Dup | 85 | 116 |
| LCSD 880-54318/2-A | Lab Control Sample Dup | 87 | 101 |
| MB 880-54098/5-A | Method Blank | 53 S1- | 100 |
| MB 880-54265/5-A | Method Blank | 53 S1- | 98 |
| MB 880-54318/5-A | Method Blank | 54 S1- | 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) |
| 880-28743-A-6-D MS | Matrix Spike | 115 | 111 |
| 880-28743-A-6-E MSD | Matrix Spike Duplicate | 108 | 109 |
| 890-4726-1 | FS01 | 103 | 112 |

# Surrogate Summary

Client: Ensolum Job ID: 890-4726-1
Project/Site: Warbler State Com 2Y SDG: 32.4565,-103.5795

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

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO1 (70-130) | OTPH1 (70-130) | | | | | | | | |
| 890-4726-1 MS | FS01 | 104 | 103 | | | | | | | | |
| 890-4726-1 MSD | FS01 | 114 | 115 | | | | | | | | |
| 890-4726-2 | FS02 | 123 | 134 S1+ | | | | | | | | |
| 890-4726-3 | FS03 | 121 | 128 | | | | | | | | |
| 890-4726-4 | FS04 | 103 | 110 | | | | | | | | |
| 890-4726-5 | FS05 | 113 | 121 | | | | | | | | |
| 890-4726-6 | SS05 | 114 | 120 | | | | | | | | |
| 890-4726-7 | SS05A | 128 | 136 S1+ | | | | | | | | |
| 890-4726-8 | SS06 | 120 | 124 | | | | | | | | |
| 890-4726-9 | SS06A | 111 | 117 | | | | | | | | |
| 890-4726-10 | SS07 | 106 | 114 | | | | | | | | |
| 890-4726-11 | SS07A | 119 | 125 | | | | | | | | |
| 890-4726-12 | SS08 | 121 | 131 S1+ | | | | | | | | |
| 890-4726-13 | SS08A | 110 | 117 | | | | | | | | |
| 890-4726-14 | SS09 | 110 | 119 | | | | | | | | |
| 890-4726-15 | SS09A | 108 | 116 | | | | | | | | |
| 890-4726-16 | SS10 | 121 | 127 | | | | | | | | |
| 890-4726-17 | SS10A | 108 | 114 | | | | | | | | |
| 890-4726-18 | SS11 | 108 | 112 | | | | | | | | |
| 890-4726-19 | SS11A | 114 | 119 | | | | | | | | |
| 890-4726-20 | SS12 | 111 | 117 | | | | | | | | |
| 890-4726-21 | SS12A | 97 | 112 | | | | | | | | |
| 890-4726-22 | SS13 | 116 | 129 | | | | | | | | |
| 890-4726-23 | SS13A | 103 | 117 | | | | | | | | |
| 890-4726-24 | SS14 | 97 | 109 | | | | | | | | |
| 890-4726-25 | SS14A | 100 | 114 | | | | | | | | |
| LCS 880-54161/2-A | Lab Control Sample | 109 | 120 | | | | | | | | |
| LCS 880-54172/2-A | Lab Control Sample | 88 | 91 | | | | | | | | |
| LCSD 880-54161/3-A | Lab Control Sample Dup | 92 | 108 | | | | | | | | |
| LCSD 880-54172/3-A | Lab Control Sample Dup | 87 | 93 | | | | | | | | |
| MB 880-54161/1-A | Method Blank | 200 S1+ | 238 S1+ | | | | | | | | |
| MB 880-54172/1-A | Method Blank | 174 S1+ | 190 S1+ | | | | | | | | |

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

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

**Lab Sample ID: MB 880-54098/5-A**
**Matrix: Solid**
**Analysis Batch: 54206**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 54098**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/24/23 15:24 | 05/27/23 07:23 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/24/23 15:24 | 05/27/23 07:23 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/24/23 15:24 | 05/27/23 07:23 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 05/24/23 15:24 | 05/27/23 07:23 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/24/23 15:24 | 05/27/23 07:23 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/24/23 15:24 | 05/27/23 07:23 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *53* | *S1-* | *70 - 130* | *05/24/23 15:24* | *05/27/23 07:23* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *05/24/23 15:24* | *05/27/23 07:23* | *1* |

**Lab Sample ID: MB 880-54265/5-A**
**Matrix: Solid**
**Analysis Batch: 54206**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 54265**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 22:59 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 22:59 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 22:59 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 22:59 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 22:59 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/26/23 15:50 | 05/27/23 22:59 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *53* | *S1-* | *70 - 130* | *05/26/23 15:50* | *05/27/23 22:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *05/26/23 15:50* | *05/27/23 22:59* | *1* |

**Lab Sample ID: LCS 880-54265/1-A**
**Matrix: Solid**
**Analysis Batch: 54206**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 54265**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1447 | *+ | mg/Kg | | 145 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1252 | | mg/Kg | | 125 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1183 | | mg/Kg | | 118 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.200 | 0.2305 | | mg/Kg | | 115 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1133 | | mg/Kg | | 113 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *84* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *118* | | *70 - 130* |

**Lab Sample ID: LCSD 880-54265/2-A**
**Matrix: Solid**
**Analysis Batch: 54206**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 54265**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1484 | *+ | mg/Kg | | 148 | 70 - 130 | 3 | 35 |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

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

**Lab Sample ID: LCSD 880-54265/2-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 54206** — **Prep Batch: 54265**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Toluene | | | 0.100 | 0.1251 | | mg/Kg | | 125 | 70 - 130 | 0 | 35 |
| Ethylbenzene | | | 0.100 | 0.1192 | | mg/Kg | | 119 | 70 - 130 | 1 | 35 |
| m-Xylene & p-Xylene | | | 0.200 | 0.2303 | | mg/Kg | | 115 | 70 - 130 | 0 | 35 |
| o-Xylene | | | 0.100 | 0.1133 | | mg/Kg | | 113 | 70 - 130 | 0 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *85* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *116* | | *70 - 130* |

**Lab Sample ID: 890-4726-1 MS** — **Client Sample ID: FS01**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 54206** — **Prep Batch: 54265**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U *+ F1 | 0.101 | 0.1492 | F1 | mg/Kg | | 148 | 70 - 130 |
| Toluene | <0.00202 | U | 0.101 | 0.1242 | | mg/Kg | | 123 | 70 - 130 |
| Ethylbenzene | <0.00202 | U | 0.101 | 0.1158 | | mg/Kg | | 115 | 70 - 130 |
| m-Xylene & p-Xylene | <0.00403 | U | 0.202 | 0.2237 | | mg/Kg | | 111 | 70 - 130 |
| o-Xylene | <0.00202 | U | 0.101 | 0.1069 | | mg/Kg | | 106 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *78* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *122* | | *70 - 130* |

**Lab Sample ID: 890-4726-1 MSD** — **Client Sample ID: FS01**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 54206** — **Prep Batch: 54265**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U *+ F1 | 0.0994 | 0.1410 | F1 | mg/Kg | | 142 | 70 - 130 | 6 | 35 |
| Toluene | <0.00202 | U | 0.0994 | 0.1182 | | mg/Kg | | 119 | 70 - 130 | 5 | 35 |
| Ethylbenzene | <0.00202 | U | 0.0994 | 0.1108 | | mg/Kg | | 111 | 70 - 130 | 4 | 35 |
| m-Xylene & p-Xylene | <0.00403 | U | 0.199 | 0.2132 | | mg/Kg | | 107 | 70 - 130 | 5 | 35 |
| o-Xylene | <0.00202 | U | 0.0994 | 0.1048 | | mg/Kg | | 105 | 70 - 130 | 2 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *121* | | *70 - 130* |

**Lab Sample ID: MB 880-54318/5-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 54336** — **Prep Batch: 54318**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:05 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:05 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:05 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:05 | 1 |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

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

**Lab Sample ID: MB 880-54318/5-A**
**Matrix: Solid**
**Analysis Batch: 54336**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 54318**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:05 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 05/27/23 12:55 | 05/30/23 12:05 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *54* | *S1-* | *70 - 130* | *05/27/23 12:55* | *05/30/23 12:05* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *05/27/23 12:55* | *05/30/23 12:05* | *1* |

**Lab Sample ID: LCS 880-54318/1-A**
**Matrix: Solid**
**Analysis Batch: 54336**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 54318**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1172 | | mg/Kg | | 117 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.1182 | | mg/Kg | | 118 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.1134 | | mg/Kg | | 113 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.200 | 0.2221 | | mg/Kg | | 111 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1082 | | mg/Kg | | 108 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *84* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *86* | | *70 - 130* |

**Lab Sample ID: LCSD 880-54318/2-A**
**Matrix: Solid**
**Analysis Batch: 54336**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 54318**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1369 | *+ | mg/Kg | | 137 | 70 - 130 | 16 | 35 |
| Toluene | | | 0.100 | 0.1295 | | mg/Kg | | 130 | 70 - 130 | 9 | 35 |
| Ethylbenzene | | | 0.100 | 0.1246 | | mg/Kg | | 125 | 70 - 130 | 9 | 35 |
| m-Xylene & p-Xylene | | | 0.200 | 0.2431 | | mg/Kg | | 122 | 70 - 130 | 9 | 35 |
| o-Xylene | | | 0.100 | 0.1180 | | mg/Kg | | 118 | 70 - 130 | 9 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* |

**Lab Sample ID: 890-4726-21 MS**
**Matrix: Solid**
**Analysis Batch: 54336**

**Client Sample ID: SS12A**
**Prep Type: Total/NA**
**Prep Batch: 54318**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U *+ F1 | 0.101 | 0.1431 | F1 | mg/Kg | | 141 | 70 - 130 | | |
| Toluene | 0.00436 | | 0.101 | 0.1197 | | mg/Kg | | 114 | 70 - 130 | | |
| Ethylbenzene | <0.00199 | U | 0.101 | 0.1159 | | mg/Kg | | 115 | 70 - 130 | | |
| m-Xylene & p-Xylene | 0.00467 | | 0.202 | 0.2260 | | mg/Kg | | 110 | 70 - 130 | | |
| o-Xylene | 0.00237 | | 0.101 | 0.1107 | | mg/Kg | | 107 | 70 - 130 | | |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

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

**Lab Sample ID: 890-4726-21 MS**
**Matrix: Solid**
**Analysis Batch: 54336**

**Client Sample ID: SS12A**
**Prep Type: Total/NA**
**Prep Batch: 54318**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* |

**Lab Sample ID: 890-4726-21 MSD**
**Matrix: Solid**
**Analysis Batch: 54336**

**Client Sample ID: SS12A**
**Prep Type: Total/NA**
**Prep Batch: 54318**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U *+ F1 | 0.0994 | 0.1285 | | mg/Kg | | 128 | 70 - 130 | 11 | 35 |
| Toluene | 0.00436 | | 0.0994 | 0.1065 | | mg/Kg | | 103 | 70 - 130 | 12 | 35 |
| Ethylbenzene | <0.00199 | U | 0.0994 | 0.1011 | | mg/Kg | | 102 | 70 - 130 | 14 | 35 |
| m-Xylene & p-Xylene | 0.00467 | | 0.199 | 0.1961 | | mg/Kg | | 96 | 70 - 130 | 14 | 35 |
| o-Xylene | 0.00237 | | 0.0994 | 0.09532 | | mg/Kg | | 93 | 70 - 130 | 15 | 35 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *124* | | *70 - 130* |

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

**Lab Sample ID: MB 880-54161/1-A**
**Matrix: Solid**
**Analysis Batch: 54121**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 54161**

| 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 | | 05/25/23 12:10 | 05/25/23 10:17 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 10:17 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 12:10 | 05/25/23 10:17 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *200* | *S1+* | *70 - 130* | *05/25/23 12:10* | *05/25/23 10:17* | *1* |
| *o-Terphenyl* | *238* | *S1+* | *70 - 130* | *05/25/23 12:10* | *05/25/23 10:17* | *1* |

**Lab Sample ID: LCS 880-54161/2-A**
**Matrix: Solid**
**Analysis Batch: 54121**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 54161**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 987.8 | | mg/Kg | | 99 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 1030 | | mg/Kg | | 103 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| *1-Chlorooctane* | *109* | | *70 - 130* |
| *o-Terphenyl* | *120* | | *70 - 130* |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

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

**Lab Sample ID: LCSD 880-54161/3-A**
**Matrix: Solid**
**Analysis Batch: 54121**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 54161**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 859.1 | | mg/Kg | | 86 | 70 - 130 | 14 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 823.6 | *1 | mg/Kg | | 82 | 70 - 130 | 22 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *92* | | *70 - 130* |
| *o-Terphenyl* | *108* | | *70 - 130* |

**Lab Sample ID: 880-28743-A-6-D MS**
**Matrix: Solid**
**Analysis Batch: 54121**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 54161**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 999 | 1048 | | mg/Kg | | 105 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U *1 | 999 | 1010 | | mg/Kg | | 99 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *115* | | *70 - 130* |
| *o-Terphenyl* | *111* | | *70 - 130* |

**Lab Sample ID: 880-28743-A-6-E MSD**
**Matrix: Solid**
**Analysis Batch: 54121**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 54161**

| 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 | <50.0 | U | 999 | 990.5 | | mg/Kg | | 99 | 70 - 130 | 6 | 20 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U *1 | 999 | 975.9 | | mg/Kg | | 96 | 70 - 130 | 3 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *108* | | *70 - 130* |
| *o-Terphenyl* | *109* | | *70 - 130* |

**Lab Sample ID: MB 880-54172/1-A**
**Matrix: Solid**
**Analysis Batch: 54197**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 54172**

| 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 | | 05/25/23 13:43 | 05/26/23 08:25 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 08:25 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 05/25/23 13:43 | 05/26/23 08:25 | 1 |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

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

**Lab Sample ID: MB 880-54172/1-A**
**Matrix: Solid**
**Analysis Batch: 54197**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 54172**

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 174 | S1+ | 70 - 130 | 05/25/23 13:43 | 05/26/23 08:25 | 1 |
| o-Terphenyl | 190 | S1+ | 70 - 130 | 05/25/23 13:43 | 05/26/23 08:25 | 1 |

**Lab Sample ID: LCS 880-54172/2-A**
**Matrix: Solid**
**Analysis Batch: 54197**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 54172**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 948.2 | | mg/Kg | | 95 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 736.7 | | mg/Kg | | 74 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 88 | | 70 - 130 |
| o-Terphenyl | 91 | | 70 - 130 |

**Lab Sample ID: LCSD 880-54172/3-A**
**Matrix: Solid**
**Analysis Batch: 54197**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 54172**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 914.4 | | mg/Kg | | 91 | 70 - 130 | 4 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 817.9 | | mg/Kg | | 82 | 70 - 130 | 10 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 87 | | 70 - 130 |
| o-Terphenyl | 93 | | 70 - 130 |

**Lab Sample ID: 890-4726-1 MS**
**Matrix: Solid**
**Analysis Batch: 54197**

**Client Sample ID: FS01**
**Prep Type: Total/NA**
**Prep Batch: 54172**

| 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 | 999 | 843.8 | | mg/Kg | | 83 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 999 | 885.4 | | mg/Kg | | 89 | 70 - 130 | | |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 104 | | 70 - 130 |
| o-Terphenyl | 103 | | 70 - 130 |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

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

**Lab Sample ID: 890-4726-1 MSD**
**Matrix: Solid**
**Analysis Batch: 54197**

**Client Sample ID: FS01**
**Prep Type: Total/NA**
**Prep Batch: 54172**

| 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 | 953.4 | | mg/Kg | | 94 | 70 - 130 | 12 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 1000 | 967.7 | | mg/Kg | | 97 | 70 - 130 | 9 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *114* | | *70 - 130* |
| *o-Terphenyl* | *115* | | *70 - 130* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-54140/1-A**
**Matrix: Solid**
**Analysis Batch: 54186**

**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 | | | 05/26/23 04:55 | 1 |

**Lab Sample ID: LCS 880-54140/2-A**
**Matrix: Solid**
**Analysis Batch: 54186**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 265.5 | | mg/Kg | | 106 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-54140/3-A**
**Matrix: Solid**
**Analysis Batch: 54186**

**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 | 259.3 | | mg/Kg | | 104 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 890-4725-A-11-F MS**
**Matrix: Solid**
**Analysis Batch: 54186**

**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 | 2540 | F1 | 2500 | 5458 | F1 | mg/Kg | | 117 | 90 - 110 | | |

**Lab Sample ID: 890-4725-A-11-G MSD**
**Matrix: Solid**
**Analysis Batch: 54186**

**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 | 2540 | F1 | 2500 | 5524 | F1 | mg/Kg | | 119 | 90 - 110 | 1 | 20 |

# QC Sample Results

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 880-54141/1-A**
**Matrix: Solid**
**Analysis Batch: 54188**

**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 | | | 05/25/23 21:15 | 1 |

**Lab Sample ID: LCS 880-54141/2-A**
**Matrix: Solid**
**Analysis Batch: 54188**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 245.0 | | mg/Kg | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-54141/3-A**
**Matrix: Solid**
**Analysis Batch: 54188**

**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 | 246.3 | | mg/Kg | | 99 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 890-4726-1 MS**
**Matrix: Solid**
**Analysis Batch: 54188**

**Client Sample ID: FS01**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 106 | | 251 | 353.3 | | mg/Kg | | 99 | 90 - 110 | | |

**Lab Sample ID: 890-4726-1 MSD**
**Matrix: Solid**
**Analysis Batch: 54188**

**Client Sample ID: FS01**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 106 | | 251 | 354.0 | | mg/Kg | | 99 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 890-4726-11 MS**
**Matrix: Solid**
**Analysis Batch: 54188**

**Client Sample ID: SS07A**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50.7 | | 253 | 329.7 | | mg/Kg | | 110 | 90 - 110 | | |

**Lab Sample ID: 890-4726-11 MSD**
**Matrix: Solid**
**Analysis Batch: 54188**

**Client Sample ID: SS07A**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50.7 | | 253 | 329.2 | | mg/Kg | | 110 | 90 - 110 | 0 | 20 |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## GC VOA

### Prep Batch: 54098

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-54098/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Analysis Batch: 54206

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-2 | FS02 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-3 | FS03 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-4 | FS04 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-5 | FS05 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-6 | SS05 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-7 | SS05A | Total/NA | Solid | 8021B | 54265 |
| 890-4726-8 | SS06 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-9 | SS06A | Total/NA | Solid | 8021B | 54265 |
| 890-4726-10 | SS07 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-11 | SS07A | Total/NA | Solid | 8021B | 54265 |
| 890-4726-12 | SS08 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-13 | SS08A | Total/NA | Solid | 8021B | 54265 |
| 890-4726-14 | SS09 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-15 | SS09A | Total/NA | Solid | 8021B | 54265 |
| 890-4726-16 | SS10 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-17 | SS10A | Total/NA | Solid | 8021B | 54265 |
| 890-4726-18 | SS11 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-19 | SS11A | Total/NA | Solid | 8021B | 54265 |
| 890-4726-20 | SS12 | Total/NA | Solid | 8021B | 54265 |
| MB 880-54098/5-A | Method Blank | Total/NA | Solid | 8021B | 54098 |
| MB 880-54265/5-A | Method Blank | Total/NA | Solid | 8021B | 54265 |
| LCS 880-54265/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 54265 |
| LCSD 880-54265/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 54265 |
| 890-4726-1 MS | FS01 | Total/NA | Solid | 8021B | 54265 |
| 890-4726-1 MSD | FS01 | Total/NA | Solid | 8021B | 54265 |

### Prep Batch: 54265

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Total/NA | Solid | 5035 | |
| 890-4726-2 | FS02 | Total/NA | Solid | 5035 | |
| 890-4726-3 | FS03 | Total/NA | Solid | 5035 | |
| 890-4726-4 | FS04 | Total/NA | Solid | 5035 | |
| 890-4726-5 | FS05 | Total/NA | Solid | 5035 | |
| 890-4726-6 | SS05 | Total/NA | Solid | 5035 | |
| 890-4726-7 | SS05A | Total/NA | Solid | 5035 | |
| 890-4726-8 | SS06 | Total/NA | Solid | 5035 | |
| 890-4726-9 | SS06A | Total/NA | Solid | 5035 | |
| 890-4726-10 | SS07 | Total/NA | Solid | 5035 | |
| 890-4726-11 | SS07A | Total/NA | Solid | 5035 | |
| 890-4726-12 | SS08 | Total/NA | Solid | 5035 | |
| 890-4726-13 | SS08A | Total/NA | Solid | 5035 | |
| 890-4726-14 | SS09 | Total/NA | Solid | 5035 | |
| 890-4726-15 | SS09A | Total/NA | Solid | 5035 | |
| 890-4726-16 | SS10 | Total/NA | Solid | 5035 | |
| 890-4726-17 | SS10A | Total/NA | Solid | 5035 | |
| 890-4726-18 | SS11 | Total/NA | Solid | 5035 | |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## GC VOA (Continued)

### Prep Batch: 54265 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-19 | SS11A | Total/NA | Solid | 5035 | |
| 890-4726-20 | SS12 | Total/NA | Solid | 5035 | |
| MB 880-54265/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-54265/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-54265/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 890-4726-1 MS | FS01 | Total/NA | Solid | 5035 | |
| 890-4726-1 MSD | FS01 | Total/NA | Solid | 5035 | |

### Prep Batch: 54318

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-21 | SS12A | Total/NA | Solid | 5035 | |
| 890-4726-22 | SS13 | Total/NA | Solid | 5035 | |
| 890-4726-23 | SS13A | Total/NA | Solid | 5035 | |
| 890-4726-24 | SS14 | Total/NA | Solid | 5035 | |
| 890-4726-25 | SS14A | Total/NA | Solid | 5035 | |
| MB 880-54318/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-54318/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-54318/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 890-4726-21 MS | SS12A | Total/NA | Solid | 5035 | |
| 890-4726-21 MSD | SS12A | Total/NA | Solid | 5035 | |

### Analysis Batch: 54336

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-21 | SS12A | Total/NA | Solid | 8021B | 54318 |
| 890-4726-22 | SS13 | Total/NA | Solid | 8021B | 54318 |
| 890-4726-23 | SS13A | Total/NA | Solid | 8021B | 54318 |
| 890-4726-24 | SS14 | Total/NA | Solid | 8021B | 54318 |
| 890-4726-25 | SS14A | Total/NA | Solid | 8021B | 54318 |
| MB 880-54318/5-A | Method Blank | Total/NA | Solid | 8021B | 54318 |
| LCS 880-54318/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 54318 |
| LCSD 880-54318/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 54318 |
| 890-4726-21 MS | SS12A | Total/NA | Solid | 8021B | 54318 |
| 890-4726-21 MSD | SS12A | Total/NA | Solid | 8021B | 54318 |

### Analysis Batch: 54479

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Total/NA | Solid | Total BTEX | |
| 890-4726-2 | FS02 | Total/NA | Solid | Total BTEX | |
| 890-4726-3 | FS03 | Total/NA | Solid | Total BTEX | |
| 890-4726-4 | FS04 | Total/NA | Solid | Total BTEX | |
| 890-4726-5 | FS05 | Total/NA | Solid | Total BTEX | |
| 890-4726-6 | SS05 | Total/NA | Solid | Total BTEX | |
| 890-4726-7 | SS05A | Total/NA | Solid | Total BTEX | |
| 890-4726-8 | SS06 | Total/NA | Solid | Total BTEX | |
| 890-4726-9 | SS06A | Total/NA | Solid | Total BTEX | |
| 890-4726-10 | SS07 | Total/NA | Solid | Total BTEX | |
| 890-4726-11 | SS07A | Total/NA | Solid | Total BTEX | |
| 890-4726-12 | SS08 | Total/NA | Solid | Total BTEX | |
| 890-4726-13 | SS08A | Total/NA | Solid | Total BTEX | |
| 890-4726-14 | SS09 | Total/NA | Solid | Total BTEX | |
| 890-4726-15 | SS09A | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## GC VOA (Continued)

### Analysis Batch: 54479 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-16 | SS10 | Total/NA | Solid | Total BTEX | |
| 890-4726-17 | SS10A | Total/NA | Solid | Total BTEX | |
| 890-4726-18 | SS11 | Total/NA | Solid | Total BTEX | |
| 890-4726-19 | SS11A | Total/NA | Solid | Total BTEX | |
| 890-4726-20 | SS12 | Total/NA | Solid | Total BTEX | |
| 890-4726-21 | SS12A | Total/NA | Solid | Total BTEX | |
| 890-4726-22 | SS13 | Total/NA | Solid | Total BTEX | |
| 890-4726-23 | SS13A | Total/NA | Solid | Total BTEX | |
| 890-4726-24 | SS14 | Total/NA | Solid | Total BTEX | |
| 890-4726-25 | SS14A | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Analysis Batch: 54121

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-21 | SS12A | Total/NA | Solid | 8015B NM | 54161 |
| 890-4726-22 | SS13 | Total/NA | Solid | 8015B NM | 54161 |
| 890-4726-23 | SS13A | Total/NA | Solid | 8015B NM | 54161 |
| 890-4726-24 | SS14 | Total/NA | Solid | 8015B NM | 54161 |
| 890-4726-25 | SS14A | Total/NA | Solid | 8015B NM | 54161 |
| MB 880-54161/1-A | Method Blank | Total/NA | Solid | 8015B NM | 54161 |
| LCS 880-54161/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 54161 |
| LCSD 880-54161/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 54161 |
| 880-28743-A-6-D MS | Matrix Spike | Total/NA | Solid | 8015B NM | 54161 |
| 880-28743-A-6-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B NM | 54161 |

### Prep Batch: 54161

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-21 | SS12A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-22 | SS13 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-23 | SS13A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-24 | SS14 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-25 | SS14A | Total/NA | Solid | 8015NM Prep | |
| MB 880-54161/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-54161/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-54161/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-28743-A-6-D MS | Matrix Spike | Total/NA | Solid | 8015NM Prep | |
| 880-28743-A-6-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015NM Prep | |

### Prep Batch: 54172

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-2 | FS02 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-3 | FS03 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-4 | FS04 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-5 | FS05 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-6 | SS05 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-7 | SS05A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-8 | SS06 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-9 | SS06A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-10 | SS07 | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## GC Semi VOA (Continued)

### Prep Batch: 54172 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-11 | SS07A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-12 | SS08 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-13 | SS08A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-14 | SS09 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-15 | SS09A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-16 | SS10 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-17 | SS10A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-18 | SS11 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-19 | SS11A | Total/NA | Solid | 8015NM Prep | |
| 890-4726-20 | SS12 | Total/NA | Solid | 8015NM Prep | |
| MB 880-54172/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-54172/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-54172/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-4726-1 MS | FS01 | Total/NA | Solid | 8015NM Prep | |
| 890-4726-1 MSD | FS01 | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 54197

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-2 | FS02 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-3 | FS03 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-4 | FS04 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-5 | FS05 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-6 | SS05 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-7 | SS05A | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-8 | SS06 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-9 | SS06A | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-10 | SS07 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-11 | SS07A | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-12 | SS08 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-13 | SS08A | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-14 | SS09 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-15 | SS09A | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-16 | SS10 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-17 | SS10A | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-18 | SS11 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-19 | SS11A | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-20 | SS12 | Total/NA | Solid | 8015B NM | 54172 |
| MB 880-54172/1-A | Method Blank | Total/NA | Solid | 8015B NM | 54172 |
| LCS 880-54172/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 54172 |
| LCSD 880-54172/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-1 MS | FS01 | Total/NA | Solid | 8015B NM | 54172 |
| 890-4726-1 MSD | FS01 | Total/NA | Solid | 8015B NM | 54172 |

### Analysis Batch: 54237

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Total/NA | Solid | 8015 NM | |
| 890-4726-2 | FS02 | Total/NA | Solid | 8015 NM | |
| 890-4726-3 | FS03 | Total/NA | Solid | 8015 NM | |
| 890-4726-4 | FS04 | Total/NA | Solid | 8015 NM | |
| 890-4726-5 | FS05 | Total/NA | Solid | 8015 NM | |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## GC Semi VOA (Continued)

### Analysis Batch: 54237 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-6 | SS05 | Total/NA | Solid | 8015 NM | |
| 890-4726-7 | SS05A | Total/NA | Solid | 8015 NM | |
| 890-4726-8 | SS06 | Total/NA | Solid | 8015 NM | |
| 890-4726-9 | SS06A | Total/NA | Solid | 8015 NM | |
| 890-4726-10 | SS07 | Total/NA | Solid | 8015 NM | |
| 890-4726-11 | SS07A | Total/NA | Solid | 8015 NM | |
| 890-4726-12 | SS08 | Total/NA | Solid | 8015 NM | |
| 890-4726-13 | SS08A | Total/NA | Solid | 8015 NM | |
| 890-4726-14 | SS09 | Total/NA | Solid | 8015 NM | |
| 890-4726-15 | SS09A | Total/NA | Solid | 8015 NM | |
| 890-4726-16 | SS10 | Total/NA | Solid | 8015 NM | |
| 890-4726-17 | SS10A | Total/NA | Solid | 8015 NM | |
| 890-4726-18 | SS11 | Total/NA | Solid | 8015 NM | |
| 890-4726-19 | SS11A | Total/NA | Solid | 8015 NM | |
| 890-4726-20 | SS12 | Total/NA | Solid | 8015 NM | |
| 890-4726-21 | SS12A | Total/NA | Solid | 8015 NM | |
| 890-4726-22 | SS13 | Total/NA | Solid | 8015 NM | |
| 890-4726-23 | SS13A | Total/NA | Solid | 8015 NM | |
| 890-4726-24 | SS14 | Total/NA | Solid | 8015 NM | |
| 890-4726-25 | SS14A | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 54140

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-21 | SS12A | Soluble | Solid | DI Leach | |
| 890-4726-22 | SS13 | Soluble | Solid | DI Leach | |
| 890-4726-23 | SS13A | Soluble | Solid | DI Leach | |
| 890-4726-24 | SS14 | Soluble | Solid | DI Leach | |
| 890-4726-25 | SS14A | Soluble | Solid | DI Leach | |
| MB 880-54140/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-54140/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-54140/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 890-4725-A-11-F MS | Matrix Spike | Soluble | Solid | DI Leach | |
| 890-4725-A-11-G MSD | Matrix Spike Duplicate | Soluble | Solid | DI Leach | |

### Leach Batch: 54141

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Soluble | Solid | DI Leach | |
| 890-4726-2 | FS02 | Soluble | Solid | DI Leach | |
| 890-4726-3 | FS03 | Soluble | Solid | DI Leach | |
| 890-4726-4 | FS04 | Soluble | Solid | DI Leach | |
| 890-4726-5 | FS05 | Soluble | Solid | DI Leach | |
| 890-4726-6 | SS05 | Soluble | Solid | DI Leach | |
| 890-4726-7 | SS05A | Soluble | Solid | DI Leach | |
| 890-4726-8 | SS06 | Soluble | Solid | DI Leach | |
| 890-4726-9 | SS06A | Soluble | Solid | DI Leach | |
| 890-4726-10 | SS07 | Soluble | Solid | DI Leach | |
| 890-4726-11 | SS07A | Soluble | Solid | DI Leach | |
| 890-4726-12 | SS08 | Soluble | Solid | DI Leach | |
| 890-4726-13 | SS08A | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## HPLC/IC (Continued)

### Leach Batch: 54141 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-14 | SS09 | Soluble | Solid | DI Leach | |
| 890-4726-15 | SS09A | Soluble | Solid | DI Leach | |
| 890-4726-16 | SS10 | Soluble | Solid | DI Leach | |
| 890-4726-17 | SS10A | Soluble | Solid | DI Leach | |
| 890-4726-18 | SS11 | Soluble | Solid | DI Leach | |
| 890-4726-19 | SS11A | Soluble | Solid | DI Leach | |
| 890-4726-20 | SS12 | Soluble | Solid | DI Leach | |
| MB 880-54141/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-54141/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-54141/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 890-4726-1 MS | FS01 | Soluble | Solid | DI Leach | |
| 890-4726-1 MSD | FS01 | Soluble | Solid | DI Leach | |
| 890-4726-11 MS | SS07A | Soluble | Solid | DI Leach | |
| 890-4726-11 MSD | SS07A | Soluble | Solid | DI Leach | |

### Analysis Batch: 54186

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-21 | SS12A | Soluble | Solid | 300.0 | 54140 |
| 890-4726-22 | SS13 | Soluble | Solid | 300.0 | 54140 |
| 890-4726-23 | SS13A | Soluble | Solid | 300.0 | 54140 |
| 890-4726-24 | SS14 | Soluble | Solid | 300.0 | 54140 |
| 890-4726-25 | SS14A | Soluble | Solid | 300.0 | 54140 |
| MB 880-54140/1-A | Method Blank | Soluble | Solid | 300.0 | 54140 |
| LCS 880-54140/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 54140 |
| LCSD 880-54140/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 54140 |
| 890-4725-A-11-F MS | Matrix Spike | Soluble | Solid | 300.0 | 54140 |
| 890-4725-A-11-G MSD | Matrix Spike Duplicate | Soluble | Solid | 300.0 | 54140 |

### Analysis Batch: 54188

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-2 | FS02 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-3 | FS03 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-4 | FS04 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-5 | FS05 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-6 | SS05 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-7 | SS05A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-8 | SS06 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-9 | SS06A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-10 | SS07 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-11 | SS07A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-12 | SS08 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-13 | SS08A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-14 | SS09 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-15 | SS09A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-16 | SS10 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-17 | SS10A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-18 | SS11 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-19 | SS11A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-20 | SS12 | Soluble | Solid | 300.0 | 54141 |
| MB 880-54141/1-A | Method Blank | Soluble | Solid | 300.0 | 54141 |

# QC Association Summary

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## HPLC/IC (Continued)

### Analysis Batch: 54188 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 880-54141/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 54141 |
| LCSD 880-54141/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 54141 |
| 890-4726-1 MS | FS01 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-1 MSD | FS01 | Soluble | Solid | 300.0 | 54141 |
| 890-4726-11 MS | SS07A | Soluble | Solid | 300.0 | 54141 |
| 890-4726-11 MSD | SS07A | Soluble | Solid | 300.0 | 54141 |

# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: FS01
**Date Collected: 05/23/23 10:55**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-1
**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 | | | 4.96 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/27/23 23:53 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 11:01 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 21:31 | CH | EET MID |

## Client Sample ID: FS02
**Date Collected: 05/23/23 11:00**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-2
**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 | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 00:20 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 12:38 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 21:47 | CH | EET MID |

## Client Sample ID: FS03
**Date Collected: 05/23/23 11:20**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-3
**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 | | | 5.05 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 00:46 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 13:00 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 21:52 | CH | EET MID |

## Client Sample ID: FS04
**Date Collected: 05/23/23 12:50**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-4
**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 | | | 5.00 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 01:13 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |

# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: FS04
**Date Collected: 05/23/23 12:50**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-4
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 13:22 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 21:58 | CH | EET MID |

## Client Sample ID: FS05
**Date Collected: 05/23/23 12:55**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-5
**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 | | | 5.04 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 01:39 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 13:44 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 22:03 | CH | EET MID |

## Client Sample ID: SS05
**Date Collected: 05/23/23 10:40**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-6
**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 | | | 5.01 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 02:06 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 14:06 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 22:19 | CH | EET MID |

## Client Sample ID: SS05A
**Date Collected: 05/23/23 10:45**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-7
**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 | | | 5.00 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 02:32 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 14:28 | SM | EET MID |

# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS05A
**Date Collected: 05/23/23 10:45**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-7
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 22:25 | CH | EET MID |

## Client Sample ID: SS06
**Date Collected: 05/23/23 12:05**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-8
**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 | | | 4.98 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 02:59 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 14:50 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 22:30 | CH | EET MID |

## Client Sample ID: SS06A
**Date Collected: 05/23/23 12:10**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-9
**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 | | | 4.95 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 03:26 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 15:13 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 22:35 | CH | EET MID |

## Client Sample ID: SS07
**Date Collected: 05/23/23 12:30**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-10
**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 | | | 5.02 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 03:53 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 15:35 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 22:41 | CH | EET MID |

# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS07A
**Date Collected: 05/23/23 12:35**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-11
**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 | | | 5.01 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 05:40 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 16:48 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 22:46 | CH | EET MID |

## Client Sample ID: SS08
**Date Collected: 05/23/23 13:05**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-12
**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 | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 06:06 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 17:10 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:02 | CH | EET MID |

## Client Sample ID: SS08A
**Date Collected: 05/23/23 13:10**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-13
**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 | | | 5.02 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 06:33 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 17:32 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:07 | CH | EET MID |

## Client Sample ID: SS09
**Date Collected: 05/23/23 13:15**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-14
**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 | | | 4.99 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 07:00 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |

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# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS09
**Date Collected: 05/23/23 13:15**
**Date Received: 05/23/23 16:53**

**Lab Sample ID: 890-4726-14**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 17:54 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:24 | CH | EET MID |

## Client Sample ID: SS09A
**Date Collected: 05/23/23 13:20**
**Date Received: 05/23/23 16:53**

**Lab Sample ID: 890-4726-15**
**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 | | | 5.00 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 07:28 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 18:15 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:29 | CH | EET MID |

## Client Sample ID: SS10
**Date Collected: 05/23/23 13:25**
**Date Received: 05/23/23 16:53**

**Lab Sample ID: 890-4726-16**
**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 | | | 4.96 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 07:55 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 18:37 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:34 | CH | EET MID |

## Client Sample ID: SS10A
**Date Collected: 05/23/23 13:30**
**Date Received: 05/23/23 16:53**

**Lab Sample ID: 890-4726-17**
**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 | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 08:23 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 18:58 | SM | EET MID |

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# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS10A
**Date Collected: 05/23/23 13:30**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-17
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:40 | CH | EET MID |

## Client Sample ID: SS11
**Date Collected: 05/23/23 13:35**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-18
**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 | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 08:50 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 19:20 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:45 | CH | EET MID |

## Client Sample ID: SS11A
**Date Collected: 05/23/23 13:40**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-19
**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 | | | 4.98 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 09:18 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 19:41 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:50 | CH | EET MID |

## Client Sample ID: SS12
**Date Collected: 05/23/23 13:45**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-20
**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 | | | 5.02 g | 5 mL | 54265 | 05/26/23 15:50 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54206 | 05/28/23 09:45 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:19 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/30/23 15:35 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 54172 | 05/25/23 13:43 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54197 | 05/26/23 20:03 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 54141 | 05/25/23 10:17 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54188 | 05/25/23 23:56 | CH | EET MID |

# Lab Chronicle

Client: Ensolum
Job ID: 890-4726-1
Project/Site: Warbler State Com 2Y
SDG: 32.4565,-103.5795

## Client Sample ID: SS12A
**Lab Sample ID: 890-4726-21**
**Date Collected: 05/23/23 13:50**
**Matrix: Solid**
**Date Received: 05/23/23 16:53**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.02 g | 5 mL | 54318 | 05/27/23 12:55 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54336 | 05/30/23 12:32 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:24 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/26/23 09:04 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 54161 | 05/25/23 12:10 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54121 | 05/25/23 19:30 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 54140 | 05/25/23 10:16 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54186 | 05/26/23 07:12 | CH | EET MID |

## Client Sample ID: SS13
**Lab Sample ID: 890-4726-22**
**Date Collected: 05/23/23 13:55**
**Matrix: Solid**
**Date Received: 05/23/23 16:53**

| 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 | 54318 | 05/27/23 12:55 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54336 | 05/30/23 12:58 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:24 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/26/23 09:04 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 54161 | 05/25/23 12:10 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54121 | 05/25/23 19:51 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 54140 | 05/25/23 10:16 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54186 | 05/26/23 07:17 | CH | EET MID |

## Client Sample ID: SS13A
**Lab Sample ID: 890-4726-23**
**Date Collected: 05/23/23 14:00**
**Matrix: Solid**
**Date Received: 05/23/23 16:53**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.00 g | 5 mL | 54318 | 05/27/23 12:55 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54336 | 05/30/23 13:25 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:24 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/26/23 09:04 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 54161 | 05/25/23 12:10 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54121 | 05/25/23 20:12 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 54140 | 05/25/23 10:16 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54186 | 05/26/23 07:22 | CH | EET MID |

## Client Sample ID: SS14
**Lab Sample ID: 890-4726-24**
**Date Collected: 05/23/23 14:05**
**Matrix: Solid**
**Date Received: 05/23/23 16:53**

| 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 | 54318 | 05/27/23 12:55 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54336 | 05/30/23 13:52 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:24 | SM | EET MID |

Eurofins Carlsbad

# Lab Chronicle

Client: Ensolum
Project/Site: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

## Client Sample ID: SS14

**Date Collected: 05/23/23 14:05**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-24

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/26/23 09:04 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 54161 | 05/25/23 12:10 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54121 | 05/25/23 20:33 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 54140 | 05/25/23 10:16 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54186 | 05/26/23 07:28 | CH | EET MID |

## Client Sample ID: SS14A

**Date Collected: 05/23/23 14:10**
**Date Received: 05/23/23 16:53**

## Lab Sample ID: 890-4726-25

**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 | | | 4.99 g | 5 mL | 54318 | 05/27/23 12:55 | EL | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 54336 | 05/30/23 14:19 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 54479 | 05/31/23 10:24 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 54237 | 05/26/23 09:04 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 54161 | 05/25/23 12:10 | AJ | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 54121 | 05/25/23 20:54 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 54140 | 05/25/23 10:16 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 54186 | 05/26/23 07:33 | 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
Job ID: 890-4726-1
Project/Site: Warbler State Com 2Y
SDG: 32.4565,-103.5795

## 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 Job ID: 890-4726-1
Project/Site: Warbler State Com 2Y SDG: 32.4565,-103.5795

| 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: Warbler State Com 2Y

Job ID: 890-4726-1
SDG: 32.4565,-103.5795

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Depth |
|---|---|---|---|---|---|
| 890-4726-1 | FS01 | Solid | 05/23/23 10:55 | 05/23/23 16:53 | 0.5' |
| 890-4726-2 | FS02 | Solid | 05/23/23 11:00 | 05/23/23 16:53 | 0.5' |
| 890-4726-3 | FS03 | Solid | 05/23/23 11:20 | 05/23/23 16:53 | 1.0' |
| 890-4726-4 | FS04 | Solid | 05/23/23 12:50 | 05/23/23 16:53 | 0.5' |
| 890-4726-5 | FS05 | Solid | 05/23/23 12:55 | 05/23/23 16:53 | 0.5' |
| 890-4726-6 | SS05 | Solid | 05/23/23 10:40 | 05/23/23 16:53 | 0.5' |
| 890-4726-7 | SS05A | Solid | 05/23/23 10:45 | 05/23/23 16:53 | 1.0' |
| 890-4726-8 | SS06 | Solid | 05/23/23 12:05 | 05/23/23 16:53 | 0.5' |
| 890-4726-9 | SS06A | Solid | 05/23/23 12:10 | 05/23/23 16:53 | 1.0' |
| 890-4726-10 | SS07 | Solid | 05/23/23 12:30 | 05/23/23 16:53 | 0.5' |
| 890-4726-11 | SS07A | Solid | 05/23/23 12:35 | 05/23/23 16:53 | 1.0' |
| 890-4726-12 | SS08 | Solid | 05/23/23 13:05 | 05/23/23 16:53 | 0.5' |
| 890-4726-13 | SS08A | Solid | 05/23/23 13:10 | 05/23/23 16:53 | 1.0' |
| 890-4726-14 | SS09 | Solid | 05/23/23 13:15 | 05/23/23 16:53 | 0.5' |
| 890-4726-15 | SS09A | Solid | 05/23/23 13:20 | 05/23/23 16:53 | 1.0' |
| 890-4726-16 | SS10 | Solid | 05/23/23 13:25 | 05/23/23 16:53 | 0.5' |
| 890-4726-17 | SS10A | Solid | 05/23/23 13:30 | 05/23/23 16:53 | 1.0' |
| 890-4726-18 | SS11 | Solid | 05/23/23 13:35 | 05/23/23 16:53 | 0.5' |
| 890-4726-19 | SS11A | Solid | 05/23/23 13:40 | 05/23/23 16:53 | 1.0' |
| 890-4726-20 | SS12 | Solid | 05/23/23 13:45 | 05/23/23 16:53 | 0.5' |
| 890-4726-21 | SS12A | Solid | 05/23/23 13:50 | 05/23/23 16:53 | 1.0' |
| 890-4726-22 | SS13 | Solid | 05/23/23 13:55 | 05/23/23 16:53 | 0.5' |
| 890-4726-23 | SS13A | Solid | 05/23/23 14:00 | 05/23/23 16:53 | 1.0' |
| 890-4726-24 | SS14 | Solid | 05/23/23 14:05 | 05/23/23 16:53 | 0.5' |
| 890-4726-25 | SS14A | Solid | 05/23/23 14:10 | 05/23/23 16:53 | 1.0' |

eurofins | 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 1 of 3

| | | | |
|---|---|---|---|
| Project Manager: | Hadlie Green | Bill to: (if different) | Kalei Jennings |
| Company Name: | Ensolum, LLC | Company Name: | Ensolum, LLC |
| Address: | 601 N Marienfeld St Suite 400 | Address: | 601 N Marienfeld St Suite 400 |
| City, State ZIP: | Midland, TX 79701 | City, State ZIP: | Midland, TX 79701 |
| Phone: | 432-557-8895 | Email: | hgreen@ensolum.com, kjennings@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: | Warbler State Com 2Y | Turn Around | ☑ Routine ☐ Rush |
| Project Number: | 03D2024186 | Due Date: | |
| Project Location: | 32.4565,-103.5795 | TAT starts the day received by the lab, if received by 4:30pm | |
| Sampler's Name: | Peter Van Patten | | |
| PO #: | | | |

| | | | |
|---|---|---|---|
| SAMPLE RECEIPT | Temp Blank: (Yes) No | Wet Ice: (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | TAM-007 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.2 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 1.2 |
| Total Containers: | | Corrected Temperature: | 1.0 |

**Preservative Codes**

None: NO; DI Water: $H_2O$; Cool: Cool; MeOH: Me; HCL: HC; $HNO_3$: HN; $H_2SO_4$: $H_2$; NaOH: Na; $H_3PO_4$: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

890-4726 Chain of Custody

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | CHLORIDES (EPA: 300.0) | TPH (8015) | BTEX (8021) | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| FS01 | Soil | 5/23/2023 | 1055 | 0.5' | Comp | 1 | x | x | x | |
| FS02 | Soil | 5/23/2023 | 1100 | 0.5' | Comp | 1 | x | x | x | |
| FS03 | Soil | 5/23/2023 | 1120 | 1.0' | Comp | 1 | x | x | x | |
| FS04 | Soil | 5/23/2023 | 1250 | 0.5' | Comp | 1 | x | x | x | |
| FS05 | Soil | 5/23/2023 | 1255 | 0.5' | Comp | 1 | x | x | x | |
| SS05 | Soil | 5/23/2023 | 1040 | 0.5' | Comp | 1 | x | x | x | |
| SS05A | Soil | 5/23/2023 | 1045 | 1.0' | Comp | 1 | x | x | x | |
| ~~SS06~~ | ~~Soil~~ | ~~5/23/2023~~ | 1205 | 0.5' | Comp | 1 | x | x | x | |
| SS06A | Soil | 5/23/2023 | 1210 | 1.0' | Comp | 1 | x | x | x | |
| SS07 | Soil | 5/23/2023 | 1230 | 0.5' | Comp | 1 | x | x | x | |

**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 $SiO_2$ Na Sr Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471



| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| Peter Van Patten | Amanda Sutton | 5/23/23 1153 | | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date 08/25/2020 Rev. 2020.2

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# 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 2 of 3

| | | | |
|---|---|---|---|
| Project Manager: | Hadlie Green | Bill to: (if different) | Kalei Jennings |
| Company Name: | Ensolum, LLC | Company Name: | Ensolum, LLC |
| Address: | 601 N Marienfeld St Suite 400 | Address: | 601 N Marienfeld St Suite 400 |
| City, State ZIP: | Midland, TX 79701 | City, State ZIP: | Midland, TX 79701 |
| Phone: | 432-557-8895 | Email: | hgreen@ensolum.com, kjennings@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: | Warbler State Com 2Y | Turn Around | |
| Project Number: | 03D2024186 | ☑ Routine ☐ Rush | |
| Project Location: | 32.4565,-103.5795 | Due Date: | |
| Sampler's Name: | Peter Van Patten | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes No | Wet Ice: | Yes No | |
| Samples Received Intact: | Yes No | Thermometer ID: | | |
| Cooler Custody Seals: | Yes No N/A | Correction Factor: | | |
| Sample Custody Seals: | Yes No N/A | Temperature Reading: | | |
| Total Containers: | | Corrected Temperature: | | |

**Preservative Codes**

None: NO; DI Water: $H_2O$; Cool: Cool; MeOH: Me; HCL: HC; $HNO_3$: HN; $H_2SO_4$: $H_2$; NaOH: Na; $H_3PO_4$: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: CHLORIDES (EPA: 300.0) | TPH (8015) | BTEX (8021) | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SS07A | Soil | 5/23/2023 | 1235 | 1.0' | Comp | 1 | | x | x | x | |
| SS08 | Soil | 5/23/2023 | 1305 | 0.5' | Comp | 1 | | x | x | x | |
| SS08A | Soil | 5/23/2023 | 1310 | 1.0' | Comp | 1 | | x | x | x | |
| SS09 | Soil | 5/23/2023 | 1315 | 0.5' | Comp | 1 | | x | x | x | |
| SS09A | Soil | 5/23/2023 | 1320 | 1.0' | Comp | 1 | | x | x | x | |
| SS10 | Soil | 5/23/2023 | 1325 | 0.5' | Comp | 1 | | x | x | x | |
| SS10A | Soil | 5/23/2023 | 1330 | 1.0' | Comp | 1 | | x | x | x | |
| ~~SS11~~ | ~~Soil~~ | ~~5/23/2023~~ | ~~1335~~ | ~~0.5'~~ | ~~Comp~~ | ~~1~~ | | x | x | x | |
| SS11A | Soil | 5/23/2023 | 1340 | 1.0' | Comp | 1 | | x | x | x | |
| SS12 | Soil | 5/23/2023 | 1345 | 0.5' | Comp | 1 | | x | x | x | |

**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 $SiO_2$ Na Sr Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471



| | Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|---|
| 1 | Peter Van Patten | Amanda Stutz | 5/23/23 1653 | | | |
| 3 | | | | 4 | | |
| 5 | | | | 6 | | |

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# 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 3 of 3

| | | | |
|---|---|---|---|
| Project Manager: | Hadlie Green | Bill to: (if different) | Kalei Jennings |
| Company Name: | Ensolum, LLC | Company Name: | Ensolum, LLC |
| Address: | 601 N Marienfeld St Suite 400 | Address: | 601 N Marienfeld St Suite 400 |
| City, State ZIP: | Midland, TX 79701 | City, State ZIP: | Midland, TX 79701 |
| Phone: | 432-557-8895 | Email: | hgreen@ensolum.com, kjennings@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: | Warbler State Com 2Y | Turn Around | |
| Project Number: | 03D2024186 | ☑ Routine ☐ Rush | |
| Project Location: | 32.4565,-103.5795 | Due Date: | |
| Sampler's Name: | Peter Van Patten | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes No | Wet Ice: | Yes No | |
| Samples Received Intact: | Yes No | Thermometer ID: | | |
| Cooler Custody Seals: | Yes No N/A | Correction Factor: | | |
| Sample Custody Seals: | Yes No N/A | Temperature Reading: | | |
| Total Containers: | | Corrected Temperature: | | |

**Preservative Codes**

None: NO; DI Water: $H_2O$; Cool: Cool; MeOH: Me; HCL: HC; $HNO_3$: HN; $H_2S0_4$: $H_2$; NaOH: Na; $H_3PO_4$: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: CHLORIDES (EPA: 300.0) | TPH (8015) | BTEX (8021) | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SS12A | Soil | 5/23/2023 | 1350 | 1.0' | Comp | 1 | | x | x | x | |
| SS13 | Soil | 5/23/2023 | 1355 | 0.5' | Comp | 1 | | x | x | x | |
| SS13A | Soil | 5/23/2023 | 1400 | 1.0' | Comp | 1 | | x | x | x | |
| SS14 | Soil | 5/23/2023 | 1405 | 0.5' | Comp | 1 | | x | x | x | |
| SS14A | Soil | 5/23/2023 | 1410 | 1.0' | Comp | 1 | | x | x | x | |

Peter Van Patten

**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 $SiO_2$ Na Sr Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471



| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 Peter Van Patten | Amanda Sitaf | 5/23/23 1643 | | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

# Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4726-1
SDG Number: 32.4565,-103.5795

**Login Number: 4726**
**List Number: 1**
**Creator: Stutzman, Amanda**

**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: 890-4726-1
SDG Number: 32.4565,-103.5795

**Login Number: 4726**
**List Number: 2**
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**
**List Creation: 05/25/23 11:10 AM**

| 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 | |

ENSOLUM

# APPENDIX E

## NMOCD Notifications

**From:** Enviro, OCD, EMNRD
**To:** Hadlie Green
**Cc:** Bratcher, Michael, EMNRD
**Subject:** RE: [EXTERNAL] COP - Sampling Notification (Week of 5/22/2023)
**Date:** Friday, May 19, 2023 1:26:13 PM
**Attachments:** image005.jpg
image006.png
image007.png
image008.png
image009.png

---

[ **EXTERNAL EMAIL**]

Hadlie,

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

JH

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

---

**From:** Hadlie Green <hgreen@ensolum.com>
**Sent:** Thursday, May 18, 2023 11:41 AM
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
**Cc:** Kalei Jennings <kjennings@ensolum.com>
**Subject:** [EXTERNAL] COP - Sampling Notification (Week of 5/22/2023)

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

All,

ConocoPhillips Company (COP) plans to complete sampling activities at the following site the week of May 22, 2023.

- Warbler State Com 002Y / NAPP2313130641
  - Sampling Date: 5/23-24/2023 @ 10:00 AM MST
-

Thank you,

**Hadlie Green**
Project Geologist
432-557-8895
hgreen@ensolum.com
**Ensolum, LLC**

ENSOLUM

# APPENDIX F

# Final 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 | NAPP2313130641 |
| District RP | |
| Facility ID | fAPP2131530650 |
| Application ID | |

# Release Notification

## Responsible Party

| | | | |
|---|---|---|---|
| Responsible Party | COG Operating, LLC | OGRID | 217817 |
| Contact Name | Jacob Laird | Contact Telephone | (575) 703-5482 |
| Contact email | Jacob.Laird@ConocoPhillips.com | Incident # *(assigned by OCD)* | NAPP2313130641 |
| Contact mailing address | 600 West Illinois Avenue, Midland, Texas 79701 | | |

## Location of Release Source

Latitude 32.4565 Longitude -103.5795

*(NAD 83 in decimal degrees to 5 decimal places)*

| | | | |
|---|---|---|---|
| Site Name | Warbler State Com 002Y | Site Type | Tank Battery |
| Date Release Discovered | April 27, 2023 | API# *(if applicable)* | 30-025-42904 |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| C | 28 | 21S | 33E | Lea |

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* Merchant Livestock )

## Nature and Volume of Release

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

| | | |
|---|---|---|
| ☒ Crude Oil | Volume Released (bbls) 3.924 | Volume Recovered (bbls) 0 |
| ☒ Produced Water | Volume Released (bbls) 1.68 | Volume Recovered (bbls) 0 |
| | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | ☒ Yes ☐ No |
| ☐ Condensate | Volume Released (bbls) | Volume Recovered (bbls) |
| ☐ Natural Gas | Volume Released (Mcf) | Volume Recovered (Mcf) |
| ☐ Other (describe) | Volume/Weight Released (provide units) | Volume/Weight Recovered (provide units) |

Cause of Release

The release was caused by a dump failure on the FWKO sending fluid out the flare. No fire occurred. The release was on the pad.
Evaluation will be made of the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NAPP2313130641 |
| District RP | |
| Facility ID | fAPP2131530650 |
| Application ID | |

| | |
|---|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br>☐ Yes ■ 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*

- ■ The source of the release has been stopped.
- ■ The impacted area has been secured to protect human health and the environment.
- ■ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ■ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Brittany N. Esparza  Title: Environmental Technician

Signature: Brittany Esparza  Date: 5/11/2023

email: Brittany.Esparza@ConocoPhillips.com  Telephone: (432) 221-0398

**OCD Only**

Received by: Jocelyn Harimon  Date: 05/11/2023

NAPP2313130641

## L48 Spill Volume Estimate Form - Fill In Gray Cells

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Facility Name & Well Number(s): | Warbler St. Com 2Y | | | | | Release Discovery Date & Time: | 4/27/23 9:00 AM | | | | |
| Provide any known details about the event: | Oil dump on KO failed to open sending fueled out the gas line. 5.607 bbl, 32.45679 N/ 103.57997 W | | | | | Primary Cause (dropdown): | Mechanical Damage/Failure | Secondary Cause (dropdown): | Mechanical Damage/Failure | | |
| | Recovered Volume (bbl.) (if available, not included in volume calculations) | | Method of Determination (dropdown) | Release Type (dropdown): | | > 1/2" of Rain in Last 24 Hours (dropdown): | | % Rainwater Recovered (not included in volume calculations, informational): | | | |
| BU: Permian | Asset Area: | DBE - Asset Avg. | | Field Measurement | Oil Mixture | No | | | | | |
| Known Volume (dropdown): | No | | | | | | | | | | |
| Known Area (dropdown): | No | | | | | | | | | | |

| Spill Calculation - Subsurface Spill - Rectangle | | | | | | | | | | | Remediation Recommendation | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Convert Irregular shape into a series of rectangles | Length (ft.) | Width (ft.) | Average Depth (in.) | On/Off Pad (dropdown) | Soil Spilled-Fluid Saturation (%.) | Estimated volume of each area (bbl.) | Total Estimated Volume of Spill (bbl.) | Percentage of Oil if Spilled Fluid is a Mixture (%.) | Total Estimated Volume of Spilled Oil (bbl.) | Total Estimated Volume of Spilled Liquid other than Oil (bbl.) | Total Estimated Contaminated Soil, uncompacted, 25% ($yd^3$.) | Current Rule of Thumb - RMR Handover Volume, ($yd^3$.) |
| Rectangle A | 280.0 | 90.0 | 0.1 | On-Pad | 10.50% | 37.38 | 3.92 | 70% | 2.75 | 1.18 | 9.72 | 750 |
| Rectangle B | 60.0 | 60.0 | 0.1 | On-Pad | 10.50% | 5.34 | 0.56 | | 0.39 | 0.17 | 1.39 | |
| Rectangle C | 60.0 | 30.0 | 0.4 | On-Pad | 10.50% | 10.68 | 1.12 | | 0.78 | 0.34 | 2.78 | |
| Rectangle D | | | | | | 0.00 | | | | | 0.00 | |
| Rectangle E | | | | | | 0.00 | | | | | 0.00 | |
| Rectangle F | | | | | | 0.00 | | | | | 0.00 | |
| Rectangle G | | | | | | 0.00 | | | | | 0.00 | |
| Rectangle H | | | | | | 0.00 | | | | | 0.00 | |
| Rectangle I | | | | | | 0.00 | | | | | 0.00 | |
| Rectangle J | | | | | | 0.00 | | | | | 0.00 | |
| Total Subsurface Volume Released: | | | | | | | 5.6070 | | 3.9249 | 1.6821 | 13.89 | BU |

**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
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**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

| | |
|---|---|
| Operator:<br>COG OPERATING LLC<br>600 W Illinois Ave<br>Midland, TX 79701 | OGRID:<br>229137 |
| | Action Number:<br>215847 |
| | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| jharimon | None | 5/11/2023 |

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NAPP2313130641 |
| District RP | |
| Facility ID | fAPP2131530650 |
| 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? | >100 (ft bgs) |
| Did this release impact groundwater or surface water? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | ☐ Yes ☒ 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)? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | ☐ Yes ☒ 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? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | ☐ Yes ☒ No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 300 feet of a wetland? | ☐ Yes ☒ No |
| Are the lateral extents of the release overlying a subsurface mine? | ☐ Yes ☒ No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | ☐ Yes ☒ No |
| Are the lateral extents of the release within a 100-year floodplain? | ☐ Yes ☒ No |
| Did the release impact areas **not** on an exploration, development, production, or storage site? | ☒ Yes ☐ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NAPP2313130641 |
| District RP | |
| Facility ID | fAPP2131530650 |
| 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: ___Jacob Laird___ Title: __Environmental Engineer__

Signature: Jacob Laird Date: __07/20/2023__

email: __Jacob.Laird@conocophillips.com__ Telephone: ___(575)703-5482___

**OCD Only**

Received by: Shelly Wells Date: 7/24/2023

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NAPP2313130641 |
| District RP | |
| Facility ID | fAPP2131530650 |
| 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: Jacob Laird Title: Environmental Engineer

Signature: Jacob Laird Date: 07/20/2023

email: Jacob.Laird@conocophillips.com Telephone: (575)703-5482

**OCD Only**

Received by: Shelly Wells Date: 7/24/2023

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

Closure Approved by: Nelson Velez Date: 10/16/2023

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

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Phone:(575) 393-6161 Fax:(575) 393-0720
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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505

CONDITIONS

Action 243588

## CONDITIONS

| | |
|---|---|
| Operator:<br>COG OPERATING LLC<br>600 W Illinois Ave<br>Midland, TX 79701 | OGRID:<br>229137 |
| | Action Number:<br>243588 |
| | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| nvelez | None | 10/16/2023 |