



September 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  
Superman Water Treatment Facility  
Incident Number NAPP2319140286  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of ConocoPhillips Company (COP), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Superman Water Treatment Facility (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacted soil resulting from a release of treated produced water at the Site. Based on field observations, excavation activities, and laboratory analytical results from the soil sampling events, COP is submitting this *Closure Request*, describing remediation that has occurred and requesting no further action for Incident Number NAPP2319140286.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit B, Section 30, Township 26 South, Range 32 East, in Lea County, New Mexico ( $32.0186^\circ$ ,  $-103.7138^\circ$ ) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On June 23, 2023, a lay-flat line failed, resulting in the release of approximately 9.2 barrels (bbls) of treated produced water into the surrounding pasture. No released fluids were recovered. COP reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 (Form C-141) on July 10, 2023. The release was assigned Incident Number NAPP2319140286.

**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 between 51 and 100 feet below ground surface (bgs) based on a recent soil boring (BH-1), located approximately 0.49 miles northeast of the Site. Soil boring BH-1 was drilled via air rotary drilling rig during October 2019 to a depth of 60 feet bgs. No groundwater was encountered while drilling and the boring was properly abandoned. The lithologic/soil sampling log

is included in Appendix A. 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 freshwater emergent wetland, located approximately 5,000 feet south 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 (medium 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: 10,000 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 and lease road that were 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

On July 10, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four assessment soil samples (SS01 through SS04) were collected around the release extent at an approximate depth of 0.5 feet bgs to confirm the lateral extent of the release. Seven assessment soil samples (SS05 through SS11) were collected within the release extent at an approximate depth of 0.5 feet bgs to assess the surface soil within the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The 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 B.

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 release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for assessment samples SS05 through SS11, collected within the release extent, indicated chloride



concentrations exceeded the Site Closure Criteria and/or reclamation requirements. The laboratory analytical results are summarized in Table 1.

## DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On August 2, 2023, Ensolum personnel returned to the Site to complete vertical delineation activities within the release extent. Four boreholes (BH01 through BH04) were advanced via hand-auger, hydrovac, or back-hoe within the release extent. Soil from the boreholes was field screened at 1-foot intervals for VOCs and chloride. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix C. Based on field screening results, discrete delineation soil samples were selected from each borehole for laboratory analysis from depths ranging from 1-foot to 14 feet bgs. The delineation soil samples were collected, handled, and analyzed following the same procedures as described above. The boreholes were backfilled with the soil removed. The delineation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 3.

Laboratory analytical results for delineation soil samples BH01A through BH04A collected at 1-foot bgs, and BH02B collected at 2 feet bgs, indicated chloride concentrations exceeded the reclamation requirements. Laboratory analytical results for delineation soil samples BH01D/BH01N, BH02D, BH03D/BH03G, and BH04C, collected at depths ranging from 3 feet to 14 feet bgs, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements where applicable.

Based on laboratory analytical results for the assessment and delineation soil samples, excavation of chloride impacted soil was warranted to depths ranging from 3 feet to 4 feet bgs within the release extent. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix D.

## EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On September 13, 2023 and September 14, 2023, Ensolum personnel were at the Site to oversee excavation of impacted soil within the release extent. Excavation activities were performed using a hydrovac, back-hoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to depths ranging from 3 feet to 4 feet bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS21 were collected from the floor of the excavation at depths ranging from 3 feet to 4 feet bgs. Composite soil samples SW01 through SW05 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. 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 4.

Laboratory analytical results for excavation floor samples FS01 through FS21 and sidewall samples SW01 through SW05 indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements where applicable. 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 4,065 square feet. A total of approximately 602 cubic yards of impacted soil was removed, transported, and properly disposed of at Northern Delaware Basin Landfill in Jal, New Mexico.

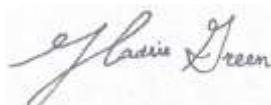
## CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the June 23, 2023, release of treated produced water. Laboratory analytical results for the excavation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements where applicable. Additionally, the release was laterally delineated to the most stringent Table I Closure Criteria. Based on the laboratory analytical results, no further remediation is required.

COP believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, COP respectfully requests closure for Incident Number NAPP2319140286. 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: Justin Carlile, ConocoPhillips Company  
Bureau of Land Management

### Appendices:

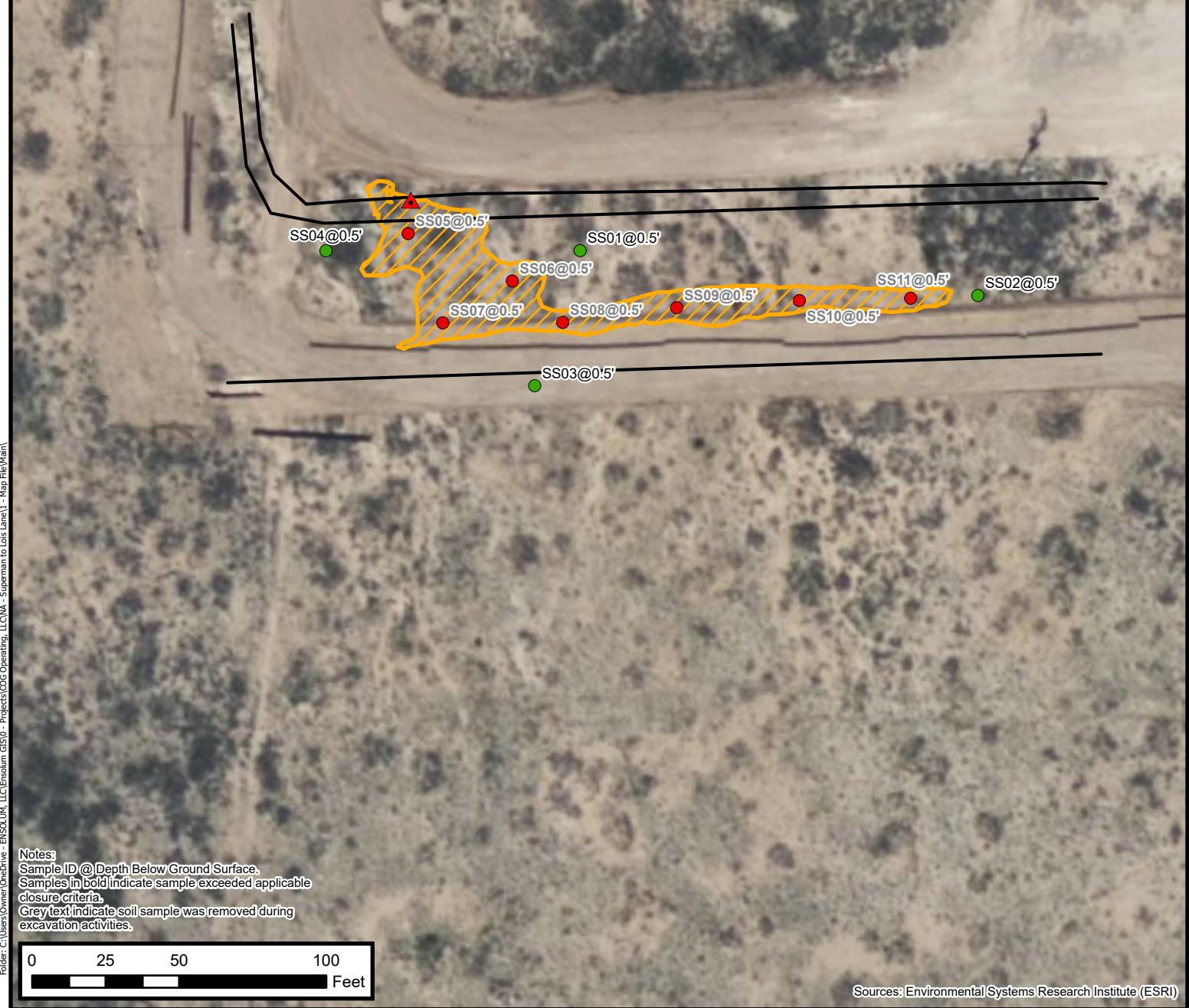
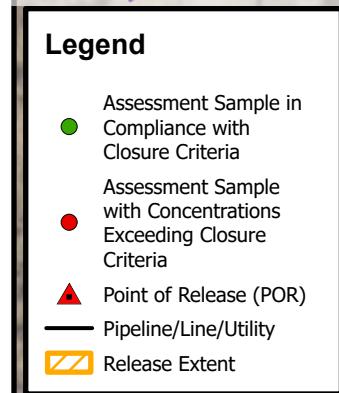
- Figure 1 Site Receptor Map
- Figure 2 Assessment Soil Sample Locations
- Figure 3 Delineation Soil Sample Locations
- Figure 4 Excavation Soil Sample Locations
- Table 1 Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Photographic Log
- Appendix C Lithologic/Soil Sampling Logs
- Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix E NMOCD Notifications
- Appendix F Final C-141



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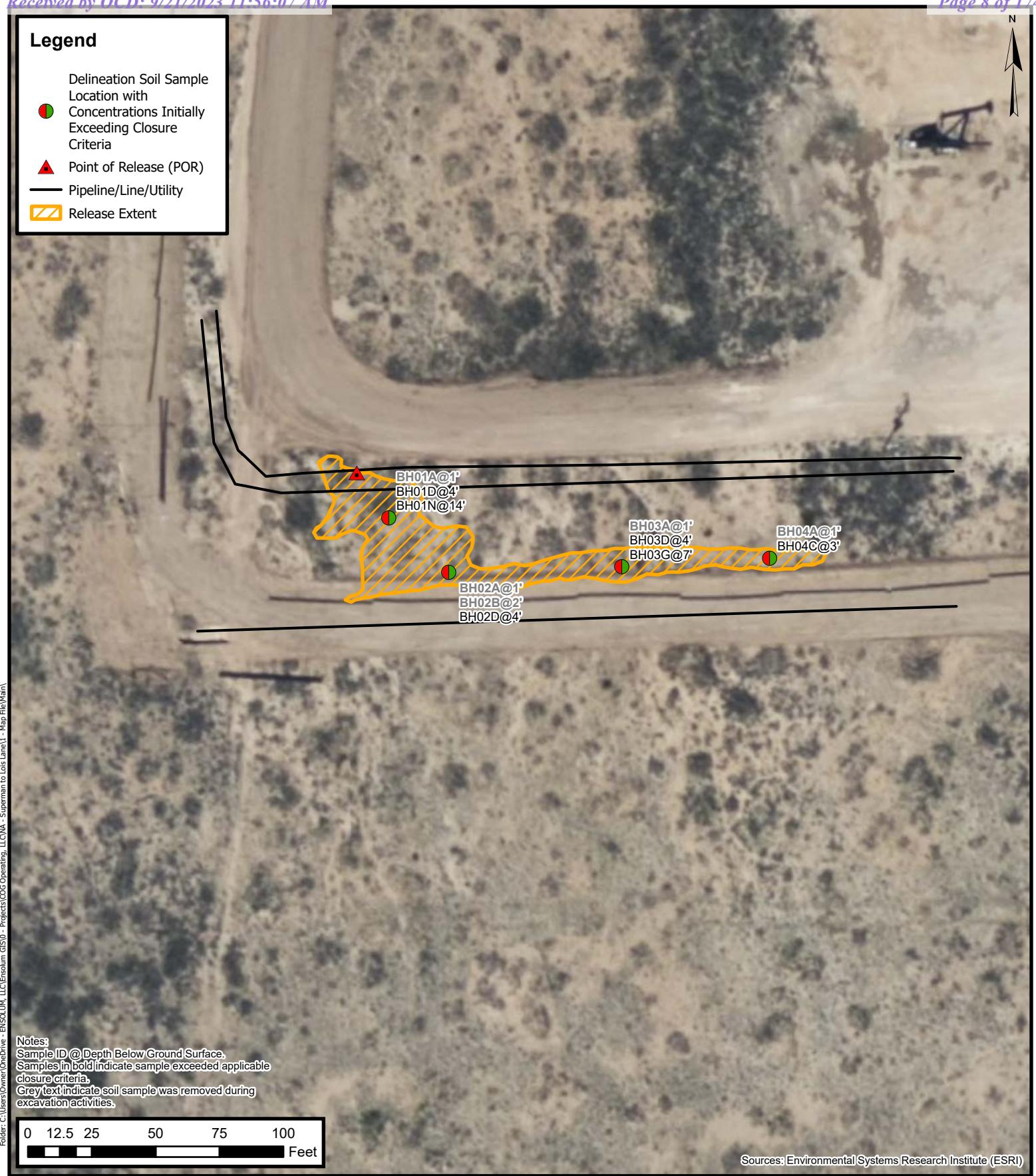
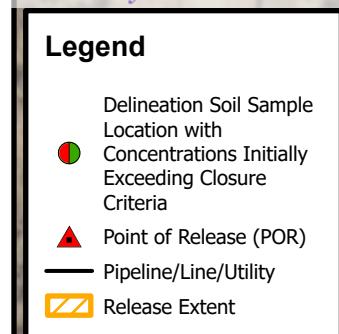
## FIGURES





**Assessment Soil Sample Locations**  
ConocoPhillips Company  
Superman Water Treatment Facility  
Incident Number: NAPP2319140286  
Unit B, Sec 30, T26S, R32E  
Lea County, New Mexico

**FIGURE**  
**2**

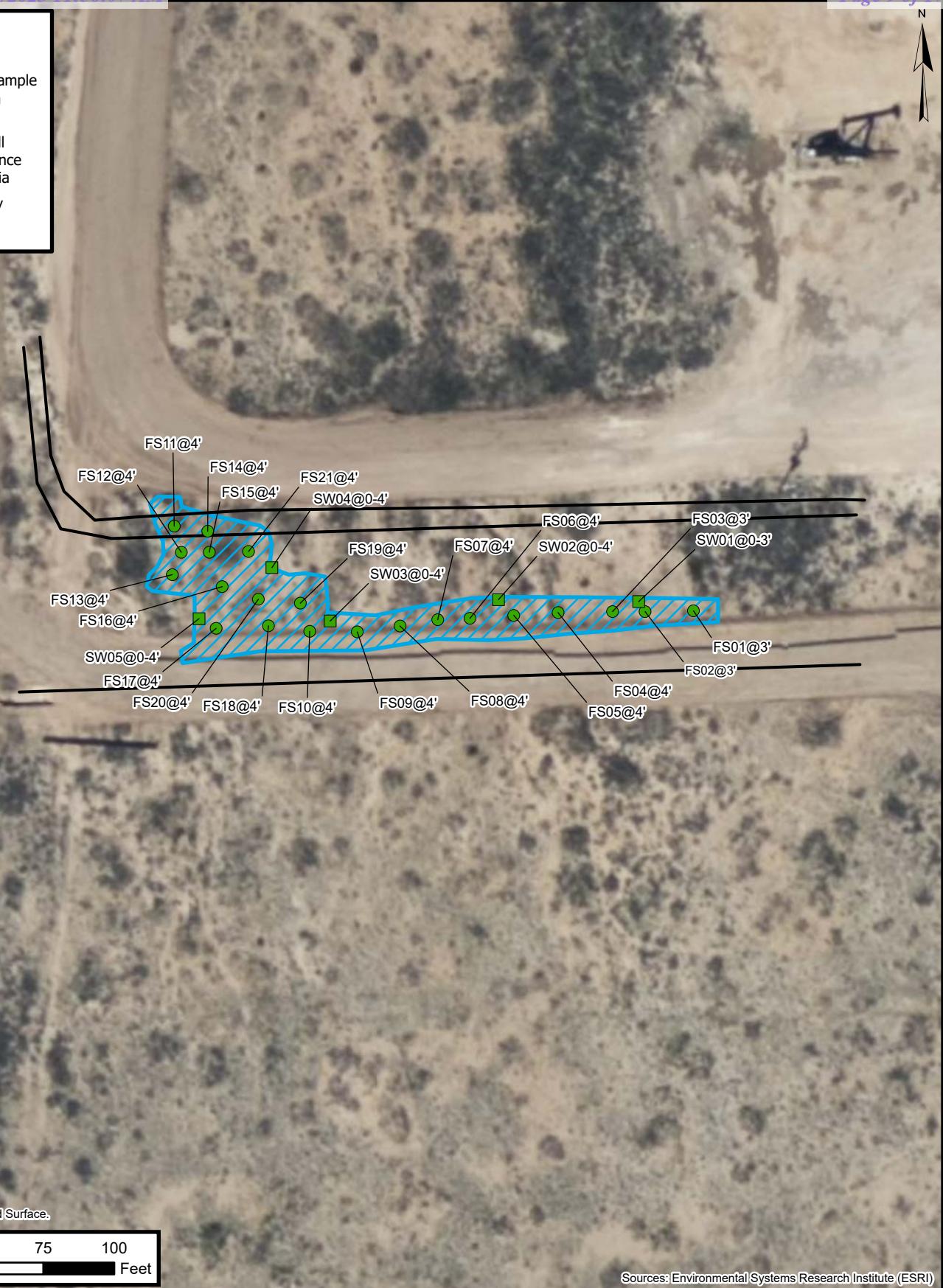


**Delineation Soil Sample Locations**  
ConocoPhillips Company  
Superman Water Treatment Facility  
Incident Number: NAPP2319140286  
Unit B, Sec 30, T26S, R32E  
Lea County, New Mexico

**FIGURE**  
**3**

**Legend**

- Excavation Floor Sample in Compliance with Closure Criteria
- Excavation Sidewall Sample in Compliance with Closure Criteria
- Pipeline/Line/Utility
- Excavation Extent



Sources: Environmental Systems Research Institute (ESRI)



**Excavation Soil Sample Locations**  
ConocoPhillips Company  
Superman Water Treatment Facility  
Incident Number: NAPP2319140286  
Unit B, Sec 30, T26S, R32E  
Lea County, New Mexico

**FIGURE**  
**4**



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## TABLES

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Superman Water Treatment Facility  
 ConocoPhillips Company  
 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)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			10	50	NE	NE	NE	1,000	2,500	10,000
<b>Assessment Soil Samples</b>										
SS01*	07/10/2023	0.5	<0.00198	<0.00397	<50.2	<50.2	<50.2	<50.2	<50.2	55.0
SS02*	07/10/2023	0.5	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	44.9
SS03*	07/10/2023	0.5	<0.00202	<0.00403	<50.4	<50.4	<50.4	<50.4	<50.4	62.6
SS04*	07/10/2023	0.5	<0.00202	<0.00404	<50.5	<50.5	<50.5	<50.5	<50.5	32.9
SS05*	07/10/2023	0.5	<0.00198	<0.00397	<49.7	<49.7	<49.7	<49.7	<49.7	4,640
SS06*	07/10/2023	0.5	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	6,400
SS07*	07/10/2023	0.5	<0.00200	<0.00401	<50.4	<50.4	<50.4	<50.4	<50.4	11,200
SS08*	07/10/2023	0.5	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	10,100
SS09*	07/10/2023	0.5	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	9,040
SS10*	07/10/2023	0.5	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	10,300
SS11*	07/10/2023	0.5	<0.00201	<0.00402	<50.5	<50.5	<50.5	<50.5	<50.5	7,650
<b>Delineation Soil Samples</b>										
BH01A*	08/02/2023	1	<0.00200	<0.00399	<50.1	51.9	<50.1	<50.1	51.9	1,530
BH01D	08/02/2023	4	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	8,170
BH01N	08/02/2023	14	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	4,630
BH02A*	08/02/2023	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	6,100
BH02B*	08/02/2023	2	<0.00200	<0.00401	<49.7	<49.7	<49.7	<49.7	<49.7	6,340
BH02D	08/02/2023	4	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	3,150
BH03A*	08/02/2023	1	<0.00198	<0.00396	<50.1	<50.1	<50.1	<50.1	<50.1	9,220
BH03D	08/02/2023	4	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	7,970
BH03G	08/02/2023	7	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	3,900
BH04A*	08/02/2023	1	<0.00198	<0.00397	<50.2	<50.2	<50.2	<50.2	<50.2	4,720
BH04C*	08/02/2023	3	<0.00200	<0.00400	<49.9	56.0	<49.9	<49.9	56.0	427



TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Superman Water Treatment Facility  
ConocoPhillips Company  
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	10,000
Excavation Floor Soil Samples										
FS01*	09/14/2023	3	0.00952	0.183	<50.4	<50.4	<50.4	<50.4	<50.4	71.2
FS02*	09/14/2023	3	<0.00198	<0.00396	<49.6	<49.6	<49.6	<49.6	<49.6	49.8
FS03*	09/14/2023	3	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	49.4
FS04	09/14/2023	4	<0.00198	<0.00396	<49.6	<49.6	<49.6	<49.6	<49.6	1,130
FS05	09/14/2023	4	<0.00200	<0.00399	<50.3	<50.3	<50.3	<50.3	<50.3	2,610
FS06	09/14/2023	4	<0.00200	<0.00401	<50.2	<50.2	<50.2	<50.2	<50.2	2,830
FS07	09/14/2023	4	<0.00202	<0.00403	<50.1	<50.1	<50.1	<50.1	<50.1	5,590
FS08	09/14/2023	4	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	5,770
FS09	09/14/2023	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	6,070
FS10	09/14/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	4,160
FS11	09/14/2023	4	<0.00201	0.011	<49.8	<49.8	<49.8	<49.8	<49.8	6,050
FS12	09/14/2023	4	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	5,890
FS13	09/14/2023	4	<0.00202	<0.00403	<50.3	<50.3	<50.3	<50.3	<50.3	3,990
FS14	09/14/2023	4	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	5,400
FS15	09/14/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	3,190
FS16	09/14/2023	4	<0.00198	0.004	<49.9	<49.9	<49.9	<49.9	<49.9	6,470
FS17	09/14/2023	4	<0.00200	<0.00401	<49.6	<49.6	<49.6	<49.6	<49.6	3,740
FS18	09/14/2023	4	<0.00200	<0.00399	<50.3	<50.3	<50.3	<50.3	<50.3	2,820
FS19	09/14/2023	4	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	2,410
FS20	09/14/2023	4	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	4,780
FS21	09/14/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	8,460

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Superman Water Treatment Facility  
 ConocoPhillips Company  
 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	10,000	
<b>Excavation Sidewall Soil Samples</b>										
SW01*	09/14/2023	0 - 3	<0.00200	<0.00399	<50.3	<50.3	<50.3	<50.3	<50.3	64.6
SW02*	09/14/2023	0 - 4	<0.00201	<0.00402	<50.5	<50.5	<50.5	<50.5	<50.5	61.0
SW03*	09/14/2023	0 - 4	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	91.9
SW04*	09/14/2023	0 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	53.5
SW05*	09/14/2023	0 - 4	<0.00200	<0.00399	<49.6	<49.6	<49.6	<49.6	<49.6	54.2

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

NE: Not Established

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

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## Sample Types:



-  Acetate Liner
-  Vane Shear
-  California
-  Test Pit

## Operation Types:



### Notes:

Analytical samples are shown in the "Remarks" column.  
Surface elevation is an estimated value.

Logger: Joe Tyler

## Drilling Equipment: Air Rotary

Driller: Scarborough Drilling

212C-MD-01867		TETRATECH		LOG OF BORING BH-1							Page 2 of 3			
Project Name: Golden Spur to Wilder Federal Pipeline Release														
Borehole Location: GPS: N 32.020165° E -103.704807°						Surface Elevation: 3155 ft								
Borehole Number: BH-1						Borehole Diameter (in.): 8		Date Started: 10/7/2019		Date Finished: 10/7/2019				
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		
												While Drilling	<input checked="" type="checkbox"/> DRY	ft
Remarks:														
MATERIAL DESCRIPTION														
												DEPTH (ft)	REMARKS	
30													BH-1 (29'-30')	
35													BH-1 (34'-35')	
40												37		
45													BH-1 (39'-40')	
50													BH-1 (44'-45')	
BH-1 (44'-45')														
Sampler Types:	<input checked="" type="checkbox"/> Split Spoon	<input type="checkbox"/> Acetate Liner	Operation Types:	<input type="checkbox"/> Auger	Notes:									
	<input type="checkbox"/> Shelby	<input type="checkbox"/> Vane Shear	<input type="checkbox"/> Mud Rotary	<input type="checkbox"/> Air Rotary	Analytical samples are shown in the "Remarks" column.									
	<input type="checkbox"/> Bulk Sample	<input checked="" type="checkbox"/> California	<input type="checkbox"/> Continuous Flight Auger	<input type="checkbox"/> Core Barrel	Surface elevation is an estimated value.									
	<input type="checkbox"/> Grab Sample	<input type="checkbox"/> Test Pit	<input type="checkbox"/> Wash Rotary	<input type="checkbox"/> Direct Push										
Logger: Joe Tyler				Drilling Equipment: Air Rotary				Driller: Scarborough Drilling						
GOLDEN SPUR TO WILDER-LOGS.GPR 11-21-19 TT AUSTIN GEOTECH_NOWELL3 2015 TT TEMPLATE DECEMBER WELL.GDT														

212C-MD-01867	 TETRATECH		LOG OF BORING BH-1						Page 3 of 3				
Project Name: Golden Spur to Wilder Federal Pipeline Release													
Borehole Location: GPS: N 32.020165° E -103.704807°						Surface Elevation: 3155 ft							
Borehole Number: BH-1					Borehole Diameter (in.): 8	Date Started: 10/7/2019			Date Finished: 10/7/2019				
DEPTH (ft)	OPERATION TYPE SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT FL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		
											While Drilling	<input checked="" type="checkbox"/> DRY	ft
Remarks:													
MATERIAL DESCRIPTION										DEPTH (ft)	REMARKS		
55		3110											BH-1 (54'-55')
60		419											57
60													BH-1 (59'-60')

Bottom of borehole at 60.0 feet.

Sampler Types:	 Split Spoon  Shelby  Bulk Sample 	 Acetate Liner   	Operation Types:	 Auger  Mud Rotary  Continuous Flight Auger 	 Air Rotary  	Notes: Analytical samples are shown in the "Remarks" column. Surface elevation is an estimated value.
Logger:	Joe Tyler		Drilling Equipment:	Air Rotary	Driller:	Scarborough Drilling



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## National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater  Geographic Area: New Mexico

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- [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 =

- 320134103384101

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

### USGS 320134103384101 26S.32E.21.32311

Lea County, New Mexico

Latitude 32°01'35.2", Longitude 103°41'01.8" NAD83

Land-surface elevation 3,130 feet above NAVD88

The depth of the well is 405 feet below land surface.

The depth of the hole is 405 feet below land surface.

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Dockum Group (231DCKM) local aquifer.

#### Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1993-06-16		D	62610		2723.41	NGVD29	1		L	
1993-06-16		D	62611		2725.00	NAVD88	1		L	
1993-06-16		D	72019	405.00					L	
2013-01-16 19:10 UTC		m	62610		2906.47	NGVD29	P	S	USGS	
2013-01-16 19:10 UTC		m	62611		2908.06	NAVD88	P	S	USGS	
2013-01-16 19:10 UTC		m	72019	221.94			P	S	USGS	

#### Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet

Section	Code	Description
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
Status	P	Pumping
Method of measurement	L	Interpreted from geophysical logs.
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions or Comments](#)[Automated retrievals](#)[Help](#)[Data Tips](#)[Explanation of terms](#)[Subscribe for system changes](#)[News](#)[Accessibility](#)    [FOIA](#)    [Privacy](#)    [Policies and Notices](#)[U.S. Department of the Interior | U.S. Geological Survey](#)**Title:** Groundwater for New Mexico: Water Levels**URL:** <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2023-07-03 15:49:19 EDT

0.31 0.25 nadww02



## **WELL RECORD & LOG**

## **OFFICE OF THE STATE ENGINEER**

[www.ose.state.nm.us](http://www.ose.state.nm.us)

STATE ENGINEER OFFICE  
ROSWELL, NEW MEXICO

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER C-3595 POD NUMBER 1 TRN NUMBER 517513  
LOCATION EX01 PAGE 1 OF 2

FOR OSE INTERNAL USE

**FILE NUMBER**

**SIGNATURE OF DRILLER / PRINT SIGNEE NAME**

**WR-20 WELL RECORD & LOG (Version 06/08/2012)**

Released to Imaging: 1/19/2024 10:51:37 AM



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## APPENDIX B

### Photographic Log

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### Photographic Log

ConocoPhillips Company  
Superman Water Treatment Facility  
Incident Number NAPP2319140286



Photograph: 1 Date: 6/28/2023  
Description: Soil staining in release footprint  
View: West



Photograph: 2 Date: 7/10/2023  
Description: Soil staining in release footprint  
View: Southeast



Photograph: 3 Date: 8/2/2023  
Description: Delineation activities using Hydrovac  
View: Southeast



Photograph: 4 Date: 9/14/2023  
Description: Excavation activities  
View: West



## APPENDIX C

### Lithologic Soil Sampling Logs

 <b>ENSOLUM</b>     								Sample Name: BH01	Date: 8/2/2023		
								Site Name: Superman Water Treatment Facility			
								Incident Number: NAPP2319140286			
								Job Number: 03D2024208			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: Peter Van Patten	Method: Backhoe				
Coordinates: 32.018686,-103.713974						Hole Diameter: N/A	Total Depth: 14'				
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 factor included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
Damp	1,153	0.0	N	BH01A	1	0	SP-SM	Sand: brown, medium to fine grain, poorly graded, some caliche gravel, no odor			
Damp	8,534	0.0	N	BH01B		1	SP-SM	Sand: brown, light brown, fine grain, poorly graded, no odor			
Damp	10,561	0.0	N	BH01C		2	SP-SM	SAA (same as above): increased light brown			
Damp	10,130	0.0	N	BH01D	4	3	CHHE	Caliche: light tan, pinkish tan, some light brown sand, no odor			
Damp	9,290	0.0	N	BH01E		4	CHHE	SAA: trace sand			
Damp	17,920	0.0	N	BH01F		5	CHHE	SAA			
Damp	9,828	0.0	N	BH01G		6	CHHE	SAA			
Damp	9,710	0.0	N	BH01H		7	CHHE	SAA			
Damp	10,676	0.0	N	BH01I		8	CHHE	SAA			
Damp	9,281	0.0	N	BH01J		9	CHHE	SAA			
	9,806	0.0	N	BH01K		10	SP-SM	Sand: Redish brown, fine grain, moderately sorted some caliche			
Damp	7,946	0.0	N	BH01L		11	CHHE	Caliche: light tan, some sand			
	7,946	0.0	N	BH01M		12	SP-SM	Sand: light brown, fine grain, moderately sorted			
Damp	5,596	0.0	N	BH01N	14	13	SP-SM	SAA			

 <b>ENSOLUM</b> <b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Sample Name: BH02	Date: 8/2/2023
							Site Name: Superman Water Treatment Facility	
							Incident Number: NAPP2319140286	
							Job Number: 03D2024208	
Coordinates: 32.018627,-103.713899					Logged By: Peter Van Patten	Method: Hydrovac		
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 factor included.					Hole Diameter: N/A	Total Depth: 4'		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Damp	8,534	0.0	N	BH02A	1	0	SP-SM	Sand: brown, medium to fine grain, poorly graded, some caliche gravel, no odor
Damp	10,007	0.0	N	BH02B	2	1	SP-SM	Sand: brown, light brown, fine grain, poorly graded, no odor
Damp	6,249	0.0	N	BH02C	3	2	SP-SM	SAA (same as above): increased light brown
Damp	2,727	0.0	N	BH02D	4	3	CHHE	Caliche: light tan, pinkish tan, some light brown sand, no odor
Note: refusal at 4 feet bgs, next to buried line, too close for backhoe TD @ 4 feet bgs								

 <b>ENSOLUM</b>								Sample Name: BH03	Date: 8/2/2023
Site Name: Superman Water Treatment Facility									
Incident Number: NAPP2319140286									
Job Number: 03D2024208									
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten	Method: Hydrovac
Coordinates: 32.018630,-103.713680					Hole Diameter: N/A		Total Depth: 7'		
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 factor included.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
Damp	11,502	0.0	N	BH03A	1	0	SP-SM	Sand: brown, medium to fine grain, poorly graded, some caliche gravel, no odor	
Damp	10,007	0.0	N	BH03B		1	SP-SM	Sand: brown, light brown, fine grain, poorly graded, no odor	
Damp	13,300	0.0	N	BH03C		2	SP-SM	SAA (same as above): increased light brown	
Damp	11,244	0.0	N	BH03D	4	3	CHHE	Caliche: light tan, pinkish tan, some light brown sand, no odor	
Damp	9,290	0.0	N	BH03E		4	CHHE	SAA: trace sand	
Damp	6,820	0.0	N	BH03F		5	CHHE	SAA	
Damp	2,548	0.0	N	BH03G	7	6	CHHE	SAA	
						7	CHHE	Note: Refusal @ 7 feet bgs, next to buried line, too close for backhoe	
TD @ 7 feet bgs									

 <b>ENSOLUM</b> LITHOLOGIC / SOIL SAMPLING LOG							Sample Name: BH04	Date: 8/2/2023
							Site Name: Superman Water Treatment Facility	
							Incident Number: NAPP2319140286	
							Job Number: 03D2024208	
Coordinates: 32.018638,-103.713494					Logged By: Peter Van Patten		Method: Hand Auger	
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 factor included.					Hole Diameter: 4"		Total Depth: 3'	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Damp	7,364	0.0	N	BH04A	1	0 1	SP-SM	Sand: brown, medium to fine grain, poorly graded, some caliche gravel, no odor
Damp	1,864	0.0	N	BH04B	2	2	SP-SM	Sand: brown, light brown, fine grain, poorly graded, no odor
Damp	532	0.0	N	BH04C	3	3	SP-SM	SAA (same as above): increased light brown
TD @ 3 feet bgs								



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## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 7/28/2023 11:34:06 AM

## JOB DESCRIPTION

Superman to Lois Lane

SDG NUMBER 03D2024208

## JOB NUMBER

890-4921-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# 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  
7/28/2023 11:34:06 AM

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

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Laboratory Job ID: 890-4921-1  
 SDG: 03D2024208

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
SDG: 03D2024208

### Qualifiers

#### GC VOA

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

#### GC Semi VOA

Qualifier	Qualifier Description
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.

#### 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

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**Case Narrative**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Job ID: 890-4921-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-4921-1****Receipt**

The samples were received on 7/10/2023 4:40 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 3.0°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4921-1), SS02 (890-4921-2), SS03 (890-4921-3), SS04 (890-4921-4), SS05 (890-4921-5), SS06 (890-4921-6), SS07 (890-4921-7), SS08 (890-4921-8), SS09 (890-4921-9), SS10 (890-4921-10) and SS11 (890-4921-11).

**GC VOA**

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS11 (890-4921-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-57503 and analytical batch 880-57534 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-57822/1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-58306/20), (CCV 880-58306/31) and (CCV 880-58306/5). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (890-4921-A-1-H MS) and (890-4921-A-1-I MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-58344/1-A). 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 880-57403 and analytical batch 880-57507 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: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS01**  
 Date Collected: 07/10/23 09:40  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-1**  
 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	07/12/23 12:26	07/12/23 19:43		1
Toluene	<0.00198	U	0.00198	mg/Kg	07/12/23 12:26	07/12/23 19:43		1
Ethylbenzene	<0.00198	U F1	0.00198	mg/Kg	07/12/23 12:26	07/12/23 19:43		1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg	07/12/23 12:26	07/12/23 19:43		1
o-Xylene	<0.00198	U	0.00198	mg/Kg	07/12/23 12:26	07/12/23 19:43		1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg	07/12/23 12:26	07/12/23 19:43		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		80		70 - 130		07/12/23 12:26	07/12/23 19:43	1
1,4-Difluorobenzene (Surr)		90		70 - 130		07/12/23 12:26	07/12/23 19:43	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			07/24/23 16:38	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	<50.2	U	50.2	mg/Kg	07/17/23 10:30	07/24/23 11:34		1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg	07/17/23 10:30	07/24/23 11:34		1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg	07/17/23 10:30	07/24/23 11:34		1
Total TPH	<50.2	U	50.2	mg/Kg	07/17/23 10:30	07/24/23 11:34		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane		110		70 - 130		07/17/23 10:30	07/24/23 11:34	1
o-Terphenyl		95		70 - 130		07/17/23 10:30	07/24/23 11:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.0		4.96	mg/Kg			07/12/23 21:26	1

**Client Sample ID: SS02**

Date Collected: 07/10/23 09:45  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-2**  
 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	07/12/23 12:26	07/12/23 20:03		1
Toluene	<0.00200	U	0.00200	mg/Kg	07/12/23 12:26	07/12/23 20:03		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	07/12/23 12:26	07/12/23 20:03		1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg	07/12/23 12:26	07/12/23 20:03		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	07/12/23 12:26	07/12/23 20:03		1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg	07/12/23 12:26	07/12/23 20:03		1

Eurofins Carlsbad

**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS02**  
 Date Collected: 07/10/23 09:45  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-2**  
 Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	07/12/23 12:26	07/12/23 20:03	1
1,4-Difluorobenzene (Surr)	92		70 - 130	07/12/23 12:26	07/12/23 20:03	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			07/27/23 19:12	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	<50.2	U	50.2	mg/Kg		07/24/23 14:34	07/27/23 18:24	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		07/24/23 14:34	07/27/23 18:24	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		07/24/23 14:34	07/27/23 18:24	1
Total TPH	<50.2	U	50.2	mg/Kg		07/24/23 14:34	07/27/23 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	07/24/23 14:34	07/27/23 18:24	1
o-Terphenyl	110		70 - 130	07/24/23 14:34	07/27/23 18:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.9		4.99	mg/Kg			07/12/23 21:41	1

**Client Sample ID: SS03****Lab Sample ID: 890-4921-3**

Date Collected: 07/10/23 09:50

Matrix: Solid

Date Received: 07/10/23 16:40

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		07/12/23 12:26	07/12/23 20:23	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/12/23 12:26	07/12/23 20:23	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/12/23 12:26	07/12/23 20:23	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		07/12/23 12:26	07/12/23 20:23	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/12/23 12:26	07/12/23 20:23	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		07/12/23 12:26	07/12/23 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	07/12/23 12:26	07/12/23 20:23	1
1,4-Difluorobenzene (Surr)	93		70 - 130	07/12/23 12:26	07/12/23 20:23	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			07/13/23 10:19	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS03**  
 Date Collected: 07/10/23 09:50  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-3**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			07/24/23 16:38	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	<50.4	U	50.4	mg/Kg		07/17/23 10:30	07/24/23 13:29	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		07/17/23 10:30	07/24/23 13:29	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		07/17/23 10:30	07/24/23 13:29	1
Total TPH	<50.4	U	50.4	mg/Kg		07/17/23 10:30	07/24/23 13:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			07/17/23 10:30	07/24/23 13:29	1
<i>o</i> -Terphenyl	94		70 - 130			07/17/23 10:30	07/24/23 13:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		4.97	mg/Kg			07/12/23 21:46	1

**Client Sample ID: SS04****Lab Sample ID: 890-4921-4**

Matrix: Solid

Date Collected: 07/10/23 09:55

Date Received: 07/10/23 16:40

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		07/12/23 12:26	07/12/23 20:44	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/12/23 12:26	07/12/23 20:44	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/12/23 12:26	07/12/23 20:44	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/12/23 12:26	07/12/23 20:44	1
<i>o</i> -Xylene	<0.00202	U	0.00202	mg/Kg		07/12/23 12:26	07/12/23 20:44	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/12/23 12:26	07/12/23 20:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130			07/12/23 12:26	07/12/23 20:44	1
1,4-Difluorobenzene (Surr)	93		70 - 130			07/12/23 12:26	07/12/23 20:44	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			07/24/23 16:38	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	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 13:50	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 13:50	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 13:50	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS04**  
 Date Collected: 07/10/23 09:55  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-4**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 13:50	1
<b>Surrogate</b>								
1-Chlorooctane	102		70 - 130			07/17/23 10:30	07/24/23 13:50	1
o-Terphenyl	88		70 - 130			07/17/23 10:30	07/24/23 13:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.9		5.03	mg/Kg			07/12/23 21:52	1

**Client Sample ID: SS05**

**Lab Sample ID: 890-4921-5**

Matrix: Solid

Date Collected: 07/10/23 10:00

Date Received: 07/10/23 16:40

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		07/12/23 12:26	07/12/23 21:04	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/12/23 12:26	07/12/23 21:04	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/12/23 12:26	07/12/23 21:04	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		07/12/23 12:26	07/12/23 21:04	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/12/23 12:26	07/12/23 21:04	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		07/12/23 12:26	07/12/23 21:04	1
<b>Surrogate</b>								
4-Bromofluorobenzene (Surr)	83		70 - 130			07/12/23 12:26	07/12/23 21:04	1
1,4-Difluorobenzene (Surr)	95		70 - 130			07/12/23 12:26	07/12/23 21:04	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			07/24/23 16:38	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	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 14:12	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 14:12	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 14:12	1
Total TPH	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 14:12	1
<b>Surrogate</b>								
1-Chlorooctane	128		70 - 130			07/17/23 10:30	07/24/23 14:12	1
o-Terphenyl	112		70 - 130			07/17/23 10:30	07/24/23 14:12	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS05**  
 Date Collected: 07/10/23 10:00  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-5**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4640		50.1	mg/Kg			07/12/23 21:57	10

**Client Sample ID: SS06**  
 Date Collected: 07/10/23 10:05  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-6**  
 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		07/12/23 12:26	07/12/23 21:25	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/12/23 12:26	07/12/23 21:25	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/12/23 12:26	07/12/23 21:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/12/23 12:26	07/12/23 21:25	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/12/23 12:26	07/12/23 21:25	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/12/23 12:26	07/12/23 21:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130			07/12/23 12:26	07/12/23 21:25	1
1,4-Difluorobenzene (Surr)	95		70 - 130			07/12/23 12:26	07/12/23 21:25	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			07/24/23 16:38	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	<49.6	U	49.6	mg/Kg		07/17/23 10:30	07/24/23 14:34	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		07/17/23 10:30	07/24/23 14:34	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		07/17/23 10:30	07/24/23 14:34	1
Total TPH	<49.6	U	49.6	mg/Kg		07/17/23 10:30	07/24/23 14:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			07/17/23 10:30	07/24/23 14:34	1
o-Terphenyl	99		70 - 130			07/17/23 10:30	07/24/23 14:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6400		50.4	mg/Kg			07/12/23 22:12	10

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS07**  
 Date Collected: 07/10/23 10:10  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-7**  
 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	07/12/23 12:26	07/12/23 21:45		1
Toluene	<0.00200	U	0.00200	mg/Kg	07/12/23 12:26	07/12/23 21:45		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	07/12/23 12:26	07/12/23 21:45		1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg	07/12/23 12:26	07/12/23 21:45		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	07/12/23 12:26	07/12/23 21:45		1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg	07/12/23 12:26	07/12/23 21:45		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		92		70 - 130		07/12/23 12:26	07/12/23 21:45	1
1,4-Difluorobenzene (Surr)		101		70 - 130		07/12/23 12:26	07/12/23 21:45	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			07/24/23 16:38	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	<50.4	U	50.4	mg/Kg	07/17/23 10:30	07/24/23 14:56		1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg	07/17/23 10:30	07/24/23 14:56		1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg	07/17/23 10:30	07/24/23 14:56		1
Total TPH	<50.4	U	50.4	mg/Kg	07/17/23 10:30	07/24/23 14:56		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane		113		70 - 130		07/17/23 10:30	07/24/23 14:56	1
o-Terphenyl		101		70 - 130		07/17/23 10:30	07/24/23 14:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11200		101	mg/Kg			07/12/23 22:17	20

**Client Sample ID: SS08**

Date Collected: 07/10/23 10:15  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-8**  
 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	07/12/23 12:26	07/12/23 22:05		1
Toluene	<0.00199	U	0.00199	mg/Kg	07/12/23 12:26	07/12/23 22:05		1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg	07/12/23 12:26	07/12/23 22:05		1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg	07/12/23 12:26	07/12/23 22:05		1
o-Xylene	<0.00199	U	0.00199	mg/Kg	07/12/23 12:26	07/12/23 22:05		1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg	07/12/23 12:26	07/12/23 22:05		1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS08**  
 Date Collected: 07/10/23 10:15  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-8**  
 Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	07/12/23 12:26	07/12/23 22:05	1
1,4-Difluorobenzene (Surr)	96		70 - 130	07/12/23 12:26	07/12/23 22:05	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			07/24/23 16:38	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	<50.1	U	50.1	mg/Kg		07/17/23 10:30	07/24/23 15:19	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		07/17/23 10:30	07/24/23 15:19	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		07/17/23 10:30	07/24/23 15:19	1
Total TPH	<50.1	U	50.1	mg/Kg		07/17/23 10:30	07/24/23 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	07/17/23 10:30	07/24/23 15:19	1
o-Terphenyl	100		70 - 130	07/17/23 10:30	07/24/23 15:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10100		101	mg/Kg			07/12/23 22:22	20

**Client Sample ID: SS09**

**Lab Sample ID: 890-4921-9**

Matrix: Solid

Date Collected: 07/10/23 10:20  
 Date Received: 07/10/23 16:40  
 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		07/12/23 12:26	07/12/23 22:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/12/23 12:26	07/12/23 22:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/12/23 12:26	07/12/23 22:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/12/23 12:26	07/12/23 22:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/12/23 12:26	07/12/23 22:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/12/23 12:26	07/12/23 22:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	07/12/23 12:26	07/12/23 22:26	1
1,4-Difluorobenzene (Surr)	97		70 - 130	07/12/23 12:26	07/12/23 22:26	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			07/13/23 10:19	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS09**  
 Date Collected: 07/10/23 10:20  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-9**  
 Matrix: Solid

**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			07/24/23 16:38	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		07/17/23 10:30	07/24/23 15:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/17/23 10:30	07/24/23 15:41	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/17/23 10:30	07/24/23 15:41	1
Total TPH	<49.8	U	49.8	mg/Kg		07/17/23 10:30	07/24/23 15:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			07/17/23 10:30	07/24/23 15:41	1
<i>o</i> -Terphenyl	101		70 - 130			07/17/23 10:30	07/24/23 15:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9040		99.8	mg/Kg			07/12/23 22:28	20

**Client Sample ID: SS10****Lab Sample ID: 890-4921-10**

Matrix: Solid

Date Collected: 07/10/23 10:25

Date Received: 07/10/23 16:40

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		07/12/23 12:26	07/12/23 22:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/12/23 12:26	07/12/23 22:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/12/23 12:26	07/12/23 22:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/12/23 12:26	07/12/23 22:46	1
<i>o</i> -Xylene	<0.00200	U	0.00200	mg/Kg		07/12/23 12:26	07/12/23 22:46	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/12/23 12:26	07/12/23 22:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			07/12/23 12:26	07/12/23 22:46	1
1,4-Difluorobenzene (Surr)	99		70 - 130			07/12/23 12:26	07/12/23 22:46	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			07/24/23 16:38	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	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 16:03	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 16:03	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 16:03	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS10**  
 Date Collected: 07/10/23 10:25  
 Date Received: 07/10/23 16:40  
 Sample Depth: 0.5

**Lab Sample ID: 890-4921-10**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg		07/17/23 10:30	07/24/23 16:03	1
<b>Surrogate</b>								
1-Chlorooctane	117		70 - 130			07/17/23 10:30	07/24/23 16:03	1
o-Terphenyl	102		70 - 130			07/17/23 10:30	07/24/23 16:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10300		99.4	mg/Kg			07/12/23 22:33	20

**Client Sample ID: SS11**

**Lab Sample ID: 890-4921-11**  
 Matrix: Solid

Date Collected: 07/10/23 10:30  
 Date Received: 07/10/23 16:40  
 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		07/12/23 12:26	07/13/23 00:37	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/12/23 12:26	07/13/23 00:37	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/12/23 12:26	07/13/23 00:37	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/12/23 12:26	07/13/23 00:37	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/12/23 12:26	07/13/23 00:37	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/12/23 12:26	07/13/23 00:37	1
<b>Surrogate</b>								
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130			07/12/23 12:26	07/13/23 00:37	1
1,4-Difluorobenzene (Surr)	96		70 - 130			07/12/23 12:26	07/13/23 00:37	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			07/13/23 10:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			07/25/23 11:35	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	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 16:47	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 16:47	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 16:47	1
Total TPH	<50.5	U	50.5	mg/Kg		07/17/23 10:30	07/24/23 16:47	1
<b>Surrogate</b>								
1-Chlorooctane	114		70 - 130			07/17/23 10:30	07/24/23 16:47	1
o-Terphenyl	107		70 - 130			07/17/23 10:30	07/24/23 16:47	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS11**  
**Date Collected: 07/10/23 10:30**  
**Date Received: 07/10/23 16:40**  
**Sample Depth: 0.5**

**Lab Sample ID: 890-4921-11**  
**Matrix: Solid**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7650	F1	50.3	mg/Kg			07/12/23 22:38	10

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**Surrogate Summary**

Client: Ensolum

Job ID: 890-4921-1

Project/Site: Superman to Lois Lane

SDG: 03D2024208

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-4921-1	SS01	80	90
890-4921-1 MS	SS01	91	99
890-4921-1 MSD	SS01	95	93
890-4921-2	SS02	88	92
890-4921-3	SS03	87	93
890-4921-4	SS04	83	93
890-4921-5	SS05	83	95
890-4921-6	SS06	90	95
890-4921-7	SS07	92	101
890-4921-8	SS08	95	96
890-4921-9	SS09	87	97
890-4921-10	SS10	86	99
890-4921-11	SS11	64 S1-	96
LCS 880-57503/1-A	Lab Control Sample	101	96
LCSD 880-57503/2-A	Lab Control Sample Dup	103	90
MB 880-57503/5-A	Method Blank	89	110

**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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-4921-1	SS01	110	95
890-4921-1 MS	SS01	13 S1-	10 S1-
890-4921-1 MSD	SS01	13 S1-	10 S1-
890-4921-2	SS02	93	110
890-4921-3	SS03	111	94
890-4921-4	SS04	102	88
890-4921-5	SS05	128	112
890-4921-6	SS06	111	99
890-4921-7	SS07	113	101
890-4921-8	SS08	111	100
890-4921-9	SS09	115	101
890-4921-10	SS10	117	102
890-4921-11	SS11	114	107
890-4967-A-3-D MS	Matrix Spike	88	98
890-4967-A-3-E MSD	Matrix Spike Duplicate	100	110
LCS 880-57822/2-A	Lab Control Sample	96	87
LCS 880-58344/2-A	Lab Control Sample	96	123
LCSD 880-57822/3-A	Lab Control Sample Dup	94	84
LCSD 880-58344/3-A	Lab Control Sample Dup	92	112
MB 880-57822/1-A	Method Blank	134 S1+	123
MB 880-58344/1-A	Method Blank	146 S1+	183 S1+

**Surrogate Legend**

1CO = 1-Chlorooctane

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**Surrogate Summary**

Client: Ensolum

Job ID: 890-4921-1

Project/Site: Superman to Lois Lane

SDG: 03D2024208

[ ] OTPH = o-Terphenyl

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

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

Lab Sample ID: MB 880-57503/5-A

Matrix: Solid

Analysis Batch: 57534

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57503

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	07/12/23 12:26	07/12/23 19:13		1	
Toluene	<0.00200	U	0.00200		mg/Kg	07/12/23 12:26	07/12/23 19:13		1	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	07/12/23 12:26	07/12/23 19:13		1	
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	07/12/23 12:26	07/12/23 19:13		1	
o-Xylene	<0.00200	U	0.00200		mg/Kg	07/12/23 12:26	07/12/23 19:13		1	
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	07/12/23 12:26	07/12/23 19:13		1	
Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	89		70 - 130		07/12/23 12:26	07/12/23 19:13		1		
1,4-Difluorobenzene (Surr)	110		70 - 130		07/12/23 12:26	07/12/23 19:13		1		

Lab Sample ID: LCS 880-57503/1-A

Matrix: Solid

Analysis Batch: 57534

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57503

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec
	Added	Result	Qualifier							
Benzene	0.100	0.09941		mg/Kg	99	70 - 130				
Toluene	0.100	0.1070		mg/Kg	107	70 - 130				
Ethylbenzene	0.100	0.08252		mg/Kg	83	70 - 130				
m-Xylene & p-Xylene	0.200	0.1755		mg/Kg	88	70 - 130				
o-Xylene	0.100	0.09486		mg/Kg	95	70 - 130				
Surrogate	LCS	LCS	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	101		70 - 130							
1,4-Difluorobenzene (Surr)	96		70 - 130							

Lab Sample ID: LCSD 880-57503/2-A

Matrix: Solid

Analysis Batch: 57534

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57503

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Benzene	0.100	0.09747		mg/Kg	97	70 - 130		2	35		
Toluene	0.100	0.1112		mg/Kg	111	70 - 130		4	35		
Ethylbenzene	0.100	0.09424		mg/Kg	94	70 - 130		13	35		
m-Xylene & p-Xylene	0.200	0.2057		mg/Kg	103	70 - 130		16	35		
o-Xylene	0.100	0.1020		mg/Kg	102	70 - 130		7	35		
Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
	Result	Qualifier									
4-Bromofluorobenzene (Surr)	103		70 - 130								
1,4-Difluorobenzene (Surr)	90		70 - 130								

Lab Sample ID: 890-4921-1 MS

Matrix: Solid

Analysis Batch: 57534

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 57503

Analyte	Sample	Sample	Spike	MS	MS	Result	Qualifier	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<0.00198	U	0.0994	0.07585		mg/Kg	76	70 - 130			
Toluene	<0.00198	U	0.0994	0.08130		mg/Kg	82	70 - 130			

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

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

Lab Sample ID: 890-4921-1 MS										Client Sample ID: SS01		
Matrix: Solid										Prep Type: Total/NA		
Analysis Batch: 57534										Prep Batch: 57503		
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits			
Ethylbenzene	<0.00198	U F1	0.0994	0.06761	F1	mg/Kg	68	70 - 130				
m-Xylene & p-Xylene	<0.00397	U	0.199	0.1397		mg/Kg	70	70 - 130				
o-Xylene	<0.00198	U	0.0994	0.07131		mg/Kg	72	70 - 130				
Surrogate	MS %Recovery	MS Qualifier	MS Limits									
4-Bromofluorobenzene (Surr)	91		70 - 130									
1,4-Difluorobenzene (Surr)	99		70 - 130									

Lab Sample ID: 890-4921-1 MSD										Client Sample ID: SS01		
Matrix: Solid										Prep Type: Total/NA		
Analysis Batch: 57534										Prep Batch: 57503		
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits		RPD	
Benzene	<0.00198	U	0.0998	0.07504		mg/Kg	75	70 - 130		1	35	
Toluene	<0.00198	U	0.0998	0.08229		mg/Kg	82	70 - 130		1	35	
Ethylbenzene	<0.00198	U F1	0.0998	0.06577	F1	mg/Kg	66	70 - 130		3	35	
m-Xylene & p-Xylene	<0.00397	U	0.200	0.1393		mg/Kg	70	70 - 130		0	35	
o-Xylene	<0.00198	U	0.0998	0.07239		mg/Kg	73	70 - 130		2	35	
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits									
4-Bromofluorobenzene (Surr)	95		70 - 130									
1,4-Difluorobenzene (Surr)	93		70 - 130									

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

Lab Sample ID: MB 880-57822/1-A										Client Sample ID: Method Blank		
Matrix: Solid										Prep Type: Total/NA		
Analysis Batch: 58306										Prep Batch: 57822		
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		07/17/23 10:30	07/24/23 08:51		1	
Diesel Range Organics (Over C10-C28)	<50.0	U		50.0		mg/Kg		07/17/23 10:30	07/24/23 08:51		1	
Oil Range Organics (Over C28-C36)	<50.0	U		50.0		mg/Kg		07/17/23 10:30	07/24/23 08:51		1	
Total TPH	<50.0	U		50.0		mg/Kg		07/17/23 10:30	07/24/23 08:51		1	
Surrogate	MB %Recovery	MB Qualifier	MB Limits					Prepared	Analyzed		Dil Fac	
1-Chlorooctane	134	S1+	70 - 130					07/17/23 10:30	07/24/23 08:51		1	
o-Terphenyl	123		70 - 130					07/17/23 10:30	07/24/23 08:51		1	

Lab Sample ID: LCS 880-57822/2-A										Client Sample ID: Lab Control Sample		
Matrix: Solid										Prep Type: Total/NA		
Analysis Batch: 58306										Prep Batch: 57822		
Analyte	Spike Result	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits					
Gasoline Range Organics (GRO)-C6-C10	1000	935.9		mg/Kg	94	70 - 130						

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## QC Sample Results

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Lab Sample ID: LCS 880-57822/2-A****Matrix: Solid****Analysis Batch: 58306****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 57822**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD	Limit
Diesel Range Organics (Over C10-C28)	1000	888.1		mg/Kg		89	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
1-Chlorooctane	96		70 - 130					

**Lab Sample ID: LCSD 880-57822/3-A****Matrix: Solid****Analysis Batch: 58306****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 57822**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	924.4		mg/Kg		92	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	881.3		mg/Kg		88	70 - 130	1 20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits					
1-Chlorooctane	94		70 - 130					
o-Terphenyl	84		70 - 130					

**Lab Sample ID: 890-4921-1 MS****Matrix: Solid****Analysis Batch: 58306****Client Sample ID: SS01****Prep Type: Total/NA****Prep Batch: 57822**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	990	1075		mg/Kg		109	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.2	U	990	999.7		mg/Kg		99	70 - 130	
Surrogate	MS %Recovery	MS Qualifier	Limits							
1-Chlorooctane	13	S1-	70 - 130							
o-Terphenyl	10	S1-	70 - 130							

**Lab Sample ID: 890-4921-1 MSD****Matrix: Solid****Analysis Batch: 58306****Client Sample ID: SS01****Prep Type: Total/NA****Prep Batch: 57822**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	990	1080		mg/Kg		109	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.2	U	990	1028		mg/Kg		102	70 - 130	3 20
Surrogate	MSD %Recovery	MSD Qualifier	Limits							
1-Chlorooctane	13	S1-	70 - 130							
o-Terphenyl	10	S1-	70 - 130							

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## QC Sample Results

Client: Ensolum  
Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
SDG: 03D2024208

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Lab Sample ID: MB 880-58344/1-A****Matrix: Solid****Analysis Batch: 58605****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 58344**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	07/24/23 10:38	07/27/23 08:53		1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	07/24/23 10:38	07/27/23 08:53		1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	07/24/23 10:38	07/27/23 08:53		1
Total TPH	<50.0	U	50.0	mg/Kg	07/24/23 10:38	07/27/23 08:53		1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	146	S1+	70 - 130	07/24/23 10:38	07/27/23 08:53	1
o-Terphenyl	183	S1+	70 - 130	07/24/23 10:38	07/27/23 08:53	1

**Lab Sample ID: LCS 880-58344/2-A****Matrix: Solid****Analysis Batch: 58605****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 58344**

Analyte	Spikes	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	864.9		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	948.4		mg/Kg		95	70 - 130
Surrogate	LCS	LCS	Limits				
	%Recovery	Qualifier					
1-Chlorooctane	96		70 - 130				
o-Terphenyl	123		70 - 130				

**Lab Sample ID: LCSD 880-58344/3-A****Matrix: Solid****Analysis Batch: 58605****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 58344**

Analyte	Spikes	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	1000	811.0		mg/Kg		81	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	885.4		mg/Kg		89	70 - 130	7	20
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier							
1-Chlorooctane	92		70 - 130						
o-Terphenyl	112		70 - 130						

**Lab Sample ID: 890-4967-A-3-D MS****Matrix: Solid****Analysis Batch: 58605****Client Sample ID: Matrix Spike****Prep Type: Total/NA****Prep Batch: 58344**

Analyte	Sample	Sample	Spikes	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	997	1279		mg/Kg		125	70 - 130
Diesel Range Organics (Over C10-C28)	51.4		997	878.8		mg/Kg		83	70 - 130

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

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

Lab Sample ID: 890-4967-A-3-D MS

Matrix: Solid

Analysis Batch: 58605

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 58344

Surrogate	MS	MS	%Recovery	Qualifier	Limits
1-Chlorooctane			88		70 - 130
<i>o</i> -Terphenyl			98		70 - 130

Lab Sample ID: 890-4967-A-3-E MSD

Matrix: Solid

Analysis Batch: 58605

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 58344

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	997	1304		mg/Kg		128	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	51.4		997	996.1		mg/Kg		95	70 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1-Chlorooctane	100		70 - 130
<i>o</i> -Terphenyl	110		70 - 130

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

Lab Sample ID: MB 880-57403/1-A

Matrix: Solid

Analysis Batch: 57507

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			07/12/23 21:11	1

Lab Sample ID: LCS 880-57403/2-A

Matrix: Solid

Analysis Batch: 57507

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	250	252.3		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-57403/3-A

Matrix: Solid

Analysis Batch: 57507

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit	
Chloride	250	254.5		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-4921-1 MS

Matrix: Solid

Analysis Batch: 57507

Client Sample ID: SS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chloride	55.0		248	303.6		mg/Kg		100	90 - 110

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

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

**Lab Sample ID: 890-4921-1 MSD**

**Matrix: Solid**

**Analysis Batch: 57507**

**Client Sample ID: SS01**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Chloride	55.0		248	304.8		mg/Kg		101	90 - 110	0 20

**Lab Sample ID: 890-4921-11 MS**

**Matrix: Solid**

**Analysis Batch: 57507**

**Client Sample ID: SS11**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	RPD	RPD Limit
Chloride	7650	F1	2520	10590	F1	mg/Kg		117	90 - 110	

**Lab Sample ID: 890-4921-11 MSD**

**Matrix: Solid**

**Analysis Batch: 57507**

**Client Sample ID: SS11**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Chloride	7650	F1	2520	10600	F1	mg/Kg		117	90 - 110	0 20

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**GC VOA****Prep Batch: 57503**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Total/NA	Solid	5035	
890-4921-2	SS02	Total/NA	Solid	5035	
890-4921-3	SS03	Total/NA	Solid	5035	
890-4921-4	SS04	Total/NA	Solid	5035	
890-4921-5	SS05	Total/NA	Solid	5035	
890-4921-6	SS06	Total/NA	Solid	5035	
890-4921-7	SS07	Total/NA	Solid	5035	
890-4921-8	SS08	Total/NA	Solid	5035	
890-4921-9	SS09	Total/NA	Solid	5035	
890-4921-10	SS10	Total/NA	Solid	5035	
890-4921-11	SS11	Total/NA	Solid	5035	
MB 880-57503/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57503/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57503/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4921-1 MS	SS01	Total/NA	Solid	5035	
890-4921-1 MSD	SS01	Total/NA	Solid	5035	

**Analysis Batch: 57534**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Total/NA	Solid	8021B	57503
890-4921-2	SS02	Total/NA	Solid	8021B	57503
890-4921-3	SS03	Total/NA	Solid	8021B	57503
890-4921-4	SS04	Total/NA	Solid	8021B	57503
890-4921-5	SS05	Total/NA	Solid	8021B	57503
890-4921-6	SS06	Total/NA	Solid	8021B	57503
890-4921-7	SS07	Total/NA	Solid	8021B	57503
890-4921-8	SS08	Total/NA	Solid	8021B	57503
890-4921-9	SS09	Total/NA	Solid	8021B	57503
890-4921-10	SS10	Total/NA	Solid	8021B	57503
890-4921-11	SS11	Total/NA	Solid	8021B	57503
MB 880-57503/5-A	Method Blank	Total/NA	Solid	8021B	57503
LCS 880-57503/1-A	Lab Control Sample	Total/NA	Solid	8021B	57503
LCSD 880-57503/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57503
890-4921-1 MS	SS01	Total/NA	Solid	8021B	57503
890-4921-1 MSD	SS01	Total/NA	Solid	8021B	57503

**Analysis Batch: 57578**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Total/NA	Solid	Total BTEX	
890-4921-2	SS02	Total/NA	Solid	Total BTEX	
890-4921-3	SS03	Total/NA	Solid	Total BTEX	
890-4921-4	SS04	Total/NA	Solid	Total BTEX	
890-4921-5	SS05	Total/NA	Solid	Total BTEX	
890-4921-6	SS06	Total/NA	Solid	Total BTEX	
890-4921-7	SS07	Total/NA	Solid	Total BTEX	
890-4921-8	SS08	Total/NA	Solid	Total BTEX	
890-4921-9	SS09	Total/NA	Solid	Total BTEX	
890-4921-10	SS10	Total/NA	Solid	Total BTEX	
890-4921-11	SS11	Total/NA	Solid	Total BTEX	

**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**GC Semi VOA****Prep Batch: 57822**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Total/NA	Solid	8015NM Prep	
890-4921-3	SS03	Total/NA	Solid	8015NM Prep	
890-4921-4	SS04	Total/NA	Solid	8015NM Prep	
890-4921-5	SS05	Total/NA	Solid	8015NM Prep	
890-4921-6	SS06	Total/NA	Solid	8015NM Prep	
890-4921-7	SS07	Total/NA	Solid	8015NM Prep	
890-4921-8	SS08	Total/NA	Solid	8015NM Prep	
890-4921-9	SS09	Total/NA	Solid	8015NM Prep	
890-4921-10	SS10	Total/NA	Solid	8015NM Prep	
890-4921-11	SS11	Total/NA	Solid	8015NM Prep	
MB 880-57822/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57822/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4921-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-4921-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 58306**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Total/NA	Solid	8015B NM	57822
890-4921-3	SS03	Total/NA	Solid	8015B NM	57822
890-4921-4	SS04	Total/NA	Solid	8015B NM	57822
890-4921-5	SS05	Total/NA	Solid	8015B NM	57822
890-4921-6	SS06	Total/NA	Solid	8015B NM	57822
890-4921-7	SS07	Total/NA	Solid	8015B NM	57822
890-4921-8	SS08	Total/NA	Solid	8015B NM	57822
890-4921-9	SS09	Total/NA	Solid	8015B NM	57822
890-4921-10	SS10	Total/NA	Solid	8015B NM	57822
890-4921-11	SS11	Total/NA	Solid	8015B NM	57822
MB 880-57822/1-A	Method Blank	Total/NA	Solid	8015B NM	57822
LCS 880-57822/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57822
LCSD 880-57822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57822
890-4921-1 MS	SS01	Total/NA	Solid	8015B NM	57822
890-4921-1 MSD	SS01	Total/NA	Solid	8015B NM	57822

**Prep Batch: 58344**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-58344/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58344/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4967-A-3-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4967-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 58397**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Total/NA	Solid	8015 NM	
890-4921-2	SS02	Total/NA	Solid	8015 NM	
890-4921-3	SS03	Total/NA	Solid	8015 NM	
890-4921-4	SS04	Total/NA	Solid	8015 NM	
890-4921-5	SS05	Total/NA	Solid	8015 NM	
890-4921-6	SS06	Total/NA	Solid	8015 NM	

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**GC Semi VOA (Continued)****Analysis Batch: 58397 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-7	SS07	Total/NA	Solid	8015 NM	
890-4921-8	SS08	Total/NA	Solid	8015 NM	
890-4921-9	SS09	Total/NA	Solid	8015 NM	
890-4921-10	SS10	Total/NA	Solid	8015 NM	
890-4921-11	SS11	Total/NA	Solid	8015 NM	

**Analysis Batch: 58605**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-2	SS02	Total/NA	Solid	8015B NM	58344
MB 880-58344/1-A	Method Blank	Total/NA	Solid	8015B NM	58344
LCS 880-58344/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58344
LCSD 880-58344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58344
890-4967-A-3-D MS	Matrix Spike	Total/NA	Solid	8015B NM	58344
890-4967-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	58344

**HPLC/IC****Leach Batch: 57403**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Soluble	Solid	DI Leach	
890-4921-2	SS02	Soluble	Solid	DI Leach	
890-4921-3	SS03	Soluble	Solid	DI Leach	
890-4921-4	SS04	Soluble	Solid	DI Leach	
890-4921-5	SS05	Soluble	Solid	DI Leach	
890-4921-6	SS06	Soluble	Solid	DI Leach	
890-4921-7	SS07	Soluble	Solid	DI Leach	
890-4921-8	SS08	Soluble	Solid	DI Leach	
890-4921-9	SS09	Soluble	Solid	DI Leach	
890-4921-10	SS10	Soluble	Solid	DI Leach	
890-4921-11	SS11	Soluble	Solid	DI Leach	
MB 880-57403/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57403/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57403/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4921-1 MS	SS01	Soluble	Solid	DI Leach	
890-4921-1 MSD	SS01	Soluble	Solid	DI Leach	
890-4921-11 MS	SS11	Soluble	Solid	DI Leach	
890-4921-11 MSD	SS11	Soluble	Solid	DI Leach	

**Analysis Batch: 57507**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4921-1	SS01	Soluble	Solid	300.0	57403
890-4921-2	SS02	Soluble	Solid	300.0	57403
890-4921-3	SS03	Soluble	Solid	300.0	57403
890-4921-4	SS04	Soluble	Solid	300.0	57403
890-4921-5	SS05	Soluble	Solid	300.0	57403
890-4921-6	SS06	Soluble	Solid	300.0	57403
890-4921-7	SS07	Soluble	Solid	300.0	57403
890-4921-8	SS08	Soluble	Solid	300.0	57403
890-4921-9	SS09	Soluble	Solid	300.0	57403
890-4921-10	SS10	Soluble	Solid	300.0	57403
890-4921-11	SS11	Soluble	Solid	300.0	57403

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**HPLC/IC (Continued)****Analysis Batch: 57507 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57403/1-A	Method Blank	Soluble	Solid	300.0	57403
LCS 880-57403/2-A	Lab Control Sample	Soluble	Solid	300.0	57403
LCSD 880-57403/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57403
890-4921-1 MS	SS01	Soluble	Solid	300.0	57403
890-4921-1 MSD	SS01	Soluble	Solid	300.0	57403
890-4921-11 MS	SS11	Soluble	Solid	300.0	57403
890-4921-11 MSD	SS11	Soluble	Solid	300.0	57403

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS01**

Date Collected: 07/10/23 09:40  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-1**

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			5.04 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 19:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 11:34	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57507	07/12/23 21:26	CH	EET MID

**Client Sample ID: SS02**

Date Collected: 07/10/23 09:45  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-2**

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			5.01 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 20:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/27/23 19:12	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	58344	07/24/23 14:34	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 18:24	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57507	07/12/23 21:41	CH	EET MID

**Client Sample ID: SS03**

Date Collected: 07/10/23 09:50  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-3**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 20:23	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 13:29	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57507	07/12/23 21:46	CH	EET MID

**Client Sample ID: SS04**

Date Collected: 07/10/23 09:55  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-4**

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			4.95 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 20:44	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS04**

Date Collected: 07/10/23 09:55  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-4**

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			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 13:50	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57507	07/12/23 21:52	CH	EET MID

**Client Sample ID: SS05**

Date Collected: 07/10/23 10:00  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-5**

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	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 21:04	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 14:12	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	57507	07/12/23 21:57	CH	EET MID

**Client Sample ID: SS06**

Date Collected: 07/10/23 10:05  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-6**

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			4.98 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 21:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 14:34	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	57507	07/12/23 22:12	CH	EET MID

**Client Sample ID: SS07**

Date Collected: 07/10/23 10:10  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-7**

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			4.99 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 21:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 14:56	SM	EET MID

Eurofins Carlsbad

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS07**

Date Collected: 07/10/23 10:10  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-7**

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			4.95 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	57507	07/12/23 22:17	CH	EET MID

**Client Sample ID: SS08**

Date Collected: 07/10/23 10:15  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-8**

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			5.03 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 22:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 15:19	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	57507	07/12/23 22:22	CH	EET MID

**Client Sample ID: SS09**

Date Collected: 07/10/23 10:20  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-9**

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			5.00 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 22:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 15:41	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	57507	07/12/23 22:28	CH	EET MID

**Client Sample ID: SS10**

Date Collected: 07/10/23 10:25  
 Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-10**

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			5.01 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/12/23 22:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/24/23 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 16:03	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	57507	07/12/23 22:33	CH	EET MID

Eurofins Carlsbad

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

**Client Sample ID: SS11**

Date Collected: 07/10/23 10:30

Date Received: 07/10/23 16:40

**Lab Sample ID: 890-4921-11**

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			4.98 g	5 mL	57503	07/12/23 12:26	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57534	07/13/23 00:37	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57578	07/13/23 10:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			58397	07/25/23 11:35	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	57822	07/17/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58306	07/24/23 16:47	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	57403	07/11/23 12:04	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	57507	07/12/23 22:38	CH	EET MID

**Laboratory References:**

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

Eurofins Carlsbad

## Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
SDG: 03D2024208

### **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	T104704400-23-26	06-30-24

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

1  
2  
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Eurofins Carlsbad

**Method Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-4921-1  
 SDG: 03D2024208

<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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

Eurofins Carlsbad

**Sample Summary**

Client: Ensolum

Job ID: 890-4921-1

Project/Site: Superman to Lois Lane

SDG: 03D2024208

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-4921-1	SS01	Solid	07/10/23 09:40	07/10/23 16:40	0.5	1
890-4921-2	SS02	Solid	07/10/23 09:45	07/10/23 16:40	0.5	2
890-4921-3	SS03	Solid	07/10/23 09:50	07/10/23 16:40	0.5	3
890-4921-4	SS04	Solid	07/10/23 09:55	07/10/23 16:40	0.5	4
890-4921-5	SS05	Solid	07/10/23 10:00	07/10/23 16:40	0.5	5
890-4921-6	SS06	Solid	07/10/23 10:05	07/10/23 16:40	0.5	6
890-4921-7	SS07	Solid	07/10/23 10:10	07/10/23 16:40	0.5	7
890-4921-8	SS08	Solid	07/10/23 10:15	07/10/23 16:40	0.5	8
890-4921-9	SS09	Solid	07/10/23 10:20	07/10/23 16:40	0.5	9
890-4921-10	SS10	Solid	07/10/23 10:25	07/10/23 16:40	0.5	10
890-4921-11	SS11	Solid	07/10/23 10:30	07/10/23 16:40	0.5	11



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 2

Project Manager:	Hadie 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	
<input checked="" type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund	
State of Project:	
<input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV	
Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:	

Project Name:		Superman to Lois Lane		Turn Around		Pres. Code	ANALYSIS REQUEST										Preservative Codes					
Project Number:		03D2024208		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush			Parameters															
Project Location:		32.0186,-103.7133		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: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		
Samples Received Intact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID: <i>7/10/2023</i>																		
Cooler Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>N/A</i>		Correction Factor: <i>-0.2</i>																		
Sample Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>N/A</i>		Temperature Reading: <i>32.0</i>																		
Total Containers:				Corrected Temperature: <i>30.0</i>																		
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp		# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											
SS01		Soil	7/10/2023	940	0.5'	Comp	1	x	x	x												
SS02		Soil	7/10/2023	945	0.5'	Comp	1	x	x	x												
SS03		Soil	7/10/2023	950	0.5'	Comp	1	x	x	x												
SS04		Soil	7/10/2023	955	0.5'	Comp	1	x	x	x												
SS05		Soil	7/10/2023	1000	0.5'	Comp	1	x	x	x												
SS06		Soil	7/10/2023	1005	0.5'	Comp	1	x	x	x												
SS07		Soil	7/10/2023	1010	0.5'	Comp	1	x	x	x												
SS08		Soil	7/10/2023	1015	0.5'	Comp	1	x	x	x												
SS09		Soil	7/10/2023	1020	0.5'	Comp	1	x	x	x												
SS10		Soil	7/10/2023	1025	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 <sub>2</sub> Na Sr Ti Sn U V Zn	Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471
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Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.			
---	--	--	--

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Pete Van Patten</i>	<i>Cleo Ap</i>	7-10-23 1640			
3			4		
5			6		



Environment Testing  
Xenon

## **Chain of Custody**

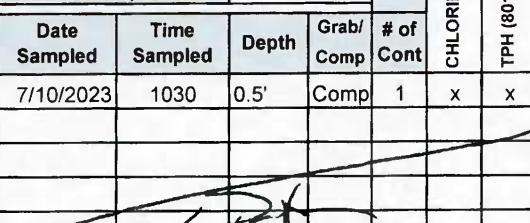
Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs NM (575) 392-7550, Carlsbad, NM (575) 988-3199

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

www.xenco.com Page 2 of 2

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

Project Name:	Superman to Lois Lane		Turn Around		Pres. Code	ANALYSIS REQUEST										PRESERVATIVE CODES				
Project Number:	03D2024208		<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush												None: NO	DI Water: H <sub>2</sub> O			
Project Location:	32.0186,-103.7133		Due Date:													Cool: Cool	MeOH: Me			
Sampler's Name:	Peter Van Patten		TAT starts the day received by the lab, if received by 4:30pm													HCl: HC	HNO <sub>3</sub> : HN			
PO #:																H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na			
<b>SAMPLE RECEIPT</b>		Temp Blank:	Yes	No		Wet Ice:	Yes	No									H <sub>3</sub> PO <sub>4</sub> : HP			
Samples Received Intact:		Yes	No	Thermometer ID:															NaHSO <sub>4</sub> : NABIS	
Cooler Custody Seals:		Yes	No	N/A	Correction Factor:															Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
Sample Custody Seals:		Yes	No	N/A	Temperature Reading:															Zn Acetate+NaOH: Zn
Total Containers:				Corrected Temperature:															NaOH+Ascorbic Acid: SAPC	
Sample Identification			Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)						Sample Comments			
SS11			Soil	7/10/2023	1030	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<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed      **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U      Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Peter C. Smith	Cle Gip	7-10-23 1640			
3			4		
5			6		

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4921-1

SDG Number: 03D2024208

**Login Number:** 4921**List Source:** Eurofins Carlsbad**List Number:** 1**Creator:** Clifton, Cloe

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: 890-4921-1

SDG Number: 03D2024208

**Login Number:** 4921**List Source:** Eurofins Midland**List Number:** 2**List Creation:** 07/12/23 11:15 AM**Creator:** Rodriguez, Leticia

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A		



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 8/21/2023 2:34:12 PM

## JOB DESCRIPTION

Superman to Lois Lane  
SDG NUMBER 03D2024208

## JOB NUMBER

890-5034-1

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  
8/21/2023 2:34:12 PM

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

Client: Ensolum  
Project/Site: Superman to Lois Lane

Laboratory Job ID: 890-5034-1  
SDG: 03D2024208

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**Definitions/Glossary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Qualifiers****GC VOA**

Qualifier	Qualifier Description
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.
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: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Job ID: 890-5034-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-5034-1****Receipt**

The samples were received on 8/4/2023 11:23 AM. 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: BH01A (890-5034-1), BH01D (890-5034-2), BH01N (890-5034-3), BH02A (890-5034-4), BH02B (890-5034-5), BH02D (890-5034-6), BH03A (890-5034-7), BH03D (890-5034-8), BH03G (890-5034-9), BH04A (890-5034-10) and BH04A (890-5034-11).

**GC VOA**

Method 8021B: The following sample was added for analysis outside of holding time: (880-31066-B-24-E).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-59922 recovered outside the control limits for Benzene and o-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-59922/20).

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

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60522/20), (CCV 880-60522/31) and (CCV 880-60522/5). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-60299 and analytical batch 880-60522 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-59363 and 880-59363 and analytical batch 880-59623 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: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH01**  
 Date Collected: 08/02/23 09:00  
 Date Received: 08/04/23 11:23  
 Sample Depth: 1

**Lab Sample ID: 890-5034-1**  
 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	08/11/23 09:56	08/11/23 14:24		1
Toluene	<0.00200	U	0.00200	mg/Kg	08/11/23 09:56	08/11/23 14:24		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	08/11/23 09:56	08/11/23 14:24		1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg	08/11/23 09:56	08/11/23 14:24		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	08/11/23 09:56	08/11/23 14:24		1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg	08/11/23 09:56	08/11/23 14:24		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		86		70 - 130		08/11/23 09:56	08/11/23 14:24	1
1,4-Difluorobenzene (Surr)		111		70 - 130		08/11/23 09:56	08/11/23 14:24	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	51.9		50.1	mg/Kg			08/21/23 14:34	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	<50.1	U	50.1	mg/Kg	08/15/23 14:06	08/18/23 14:59		1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>51.9</b>		50.1	mg/Kg	08/15/23 14:06	08/18/23 14:59		1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg	08/15/23 14:06	08/18/23 14:59		1
<b>Surrogate</b>								
1-Chlorooctane	103		70 - 130		08/15/23 14:06	08/18/23 14:59		1
<i>o-Terphenyl</i>	111		70 - 130		08/15/23 14:06	08/18/23 14:59		1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1530	F1	25.0	mg/Kg			08/09/23 02:16	5

**Client Sample ID: BH01A**

Date Collected: 08/02/23 13:40  
 Date Received: 08/04/23 11:23  
 Sample Depth: 4

**Lab Sample ID: 890-5034-2**  
 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	08/11/23 09:56	08/11/23 14:45		1
Toluene	<0.00199	U	0.00199	mg/Kg	08/11/23 09:56	08/11/23 14:45		1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg	08/11/23 09:56	08/11/23 14:45		1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg	08/11/23 09:56	08/11/23 14:45		1
o-Xylene	<0.00199	U	0.00199	mg/Kg	08/11/23 09:56	08/11/23 14:45		1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg	08/11/23 09:56	08/11/23 14:45		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		85		70 - 130		08/11/23 09:56	08/11/23 14:45	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH01A**  
 Date Collected: 08/02/23 13:40  
 Date Received: 08/04/23 11:23  
 Sample Depth: 4

**Lab Sample ID: 890-5034-2**  
 Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	111		70 - 130	08/11/23 09:56	08/11/23 14:45	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			08/21/23 14:34	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	<50.4	U	50.4	mg/Kg		08/15/23 14:06	08/18/23 15:43	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		08/15/23 14:06	08/18/23 15:43	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/15/23 14:06	08/18/23 15:43	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	08/15/23 14:06	08/18/23 15:43	1
o-Terphenyl	125		70 - 130	08/15/23 14:06	08/18/23 15:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8170		50.0	mg/Kg			08/09/23 02:37	10

**Client Sample ID: BH01B****Lab Sample ID: 890-5034-3**

Matrix: Solid

Date Collected: 08/02/23 14:30

Date Received: 08/04/23 11:23

Sample Depth: 14

**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		08/11/23 09:56	08/11/23 18:35	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/11/23 09:56	08/11/23 18:35	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/11/23 09:56	08/11/23 18:35	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		08/11/23 09:56	08/11/23 18:35	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/11/23 09:56	08/11/23 18:35	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		08/11/23 09:56	08/11/23 18:35	1

**Surrogate**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	08/11/23 09:56	08/11/23 18:35	1
1,4-Difluorobenzene (Surr)	109		70 - 130	08/11/23 09:56	08/11/23 18:35	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/21/23 14:34	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH01B**  
 Date Collected: 08/02/23 14:30  
 Date Received: 08/04/23 11:23  
 Sample Depth: 14

**Lab Sample ID: 890-5034-3**  
 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		08/15/23 14:06	08/18/23 16:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/15/23 14:06	08/18/23 16:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/15/23 14:06	08/18/23 16:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			08/15/23 14:06	08/18/23 16:05	1
o-Terphenyl	125		70 - 130			08/15/23 14:06	08/18/23 16:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4630		49.6	mg/Kg			08/09/23 02:43	10

**Client Sample ID: BH02**

**Lab Sample ID: 890-5034-4**  
 Matrix: Solid

Date Collected: 08/02/23 09:20  
 Date Received: 08/04/23 11:23  
 Sample Depth: 1

**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		08/11/23 09:56	08/11/23 18:56	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 18:56	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 18:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/11/23 09:56	08/11/23 18:56	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 18:56	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/11/23 09:56	08/11/23 18:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130			08/11/23 09:56	08/11/23 18:56	1
1,4-Difluorobenzene (Surr)	116		70 - 130			08/11/23 09:56	08/11/23 18:56	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			08/14/23 11:01	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			08/21/23 14:34	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		08/15/23 14:06	08/18/23 16:27	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/15/23 14:06	08/18/23 16:27	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/15/23 14:06	08/18/23 16:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			08/15/23 14:06	08/18/23 16:27	1
o-Terphenyl	128		70 - 130			08/15/23 14:06	08/18/23 16:27	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH02**  
 Date Collected: 08/02/23 09:20  
 Date Received: 08/04/23 11:23  
 Sample Depth: 1

**Lab Sample ID: 890-5034-4**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6100		50.1	mg/Kg			08/09/23 02:50	10

**Client Sample ID: BH02A**  
 Date Collected: 08/02/23 09:25  
 Date Received: 08/04/23 11:23  
 Sample Depth: 2

**Lab Sample ID: 890-5034-5**  
 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		08/11/23 09:56	08/11/23 19:17	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/11/23 09:56	08/11/23 19:17	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/11/23 09:56	08/11/23 19:17	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/11/23 09:56	08/11/23 19:17	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/11/23 09:56	08/11/23 19:17	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/11/23 09:56	08/11/23 19:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130			08/11/23 09:56	08/11/23 19:17	1
1,4-Difluorobenzene (Surr)	113		70 - 130			08/11/23 09:56	08/11/23 19:17	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			08/21/23 14:34	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	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 16:49	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 16:49	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 16:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			08/15/23 14:06	08/18/23 16:49	1
<i>o</i> -Terphenyl	116		70 - 130			08/15/23 14:06	08/18/23 16:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6340		49.9	mg/Kg			08/09/23 02:57	10

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH02B**  
 Date Collected: 08/02/23 13:30  
 Date Received: 08/04/23 11:23  
 Sample Depth: 4

**Lab Sample ID: 890-5034-6**  
 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	08/11/23 09:56	08/11/23 19:38		1
Toluene	<0.00199	U	0.00199	mg/Kg	08/11/23 09:56	08/11/23 19:38		1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg	08/11/23 09:56	08/11/23 19:38		1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg	08/11/23 09:56	08/11/23 19:38		1
o-Xylene	<0.00199	U	0.00199	mg/Kg	08/11/23 09:56	08/11/23 19:38		1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg	08/11/23 09:56	08/11/23 19:38		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		78		70 - 130		08/11/23 09:56	08/11/23 19:38	1
1,4-Difluorobenzene (Surr)		113		70 - 130		08/11/23 09:56	08/11/23 19:38	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			08/21/23 14:34	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	<50.1	U	50.1	mg/Kg	08/15/23 14:06	08/18/23 17:12		1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg	08/15/23 14:06	08/18/23 17:12		1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg	08/15/23 14:06	08/18/23 17:12		1
<b>Surrogate</b>								
1-Chlorooctane								1
o-Terphenyl								1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3150		24.8	mg/Kg			08/09/23 03:18	5

**Client Sample ID: BH03**

Date Collected: 08/02/23 09:40  
 Date Received: 08/04/23 11:23  
 Sample Depth: 1

**Lab Sample ID: 890-5034-7**  
 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	08/11/23 09:56	08/11/23 19:58		1
Toluene	<0.00198	U	0.00198	mg/Kg	08/11/23 09:56	08/11/23 19:58		1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg	08/11/23 09:56	08/11/23 19:58		1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg	08/11/23 09:56	08/11/23 19:58		1
o-Xylene	<0.00198	U	0.00198	mg/Kg	08/11/23 09:56	08/11/23 19:58		1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg	08/11/23 09:56	08/11/23 19:58		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		84		70 - 130		08/11/23 09:56	08/11/23 19:58	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH03**  
 Date Collected: 08/02/23 09:40  
 Date Received: 08/04/23 11:23  
 Sample Depth: 1

**Lab Sample ID: 890-5034-7**  
 Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	117		70 - 130	08/11/23 09:56	08/11/23 19:58	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			08/21/23 14:34	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	<50.1	U	50.1	mg/Kg		08/15/23 14:06	08/18/23 17:33	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		08/15/23 14:06	08/18/23 17:33	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		08/15/23 14:06	08/18/23 17:33	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	08/15/23 14:06	08/18/23 17:33	1
o-Terphenyl	117		70 - 130	08/15/23 14:06	08/18/23 17:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9220		49.7	mg/Kg			08/09/23 03:24	10

**Client Sample ID: BH03A****Lab Sample ID: 890-5034-8**

Matrix: Solid

Date Collected: 08/02/23 13:00

Date Received: 08/04/23 11:23

Sample Depth: 4

**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		08/11/23 09:56	08/11/23 20:19	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 20:19	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 20:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/11/23 09:56	08/11/23 20:19	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 20:19	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/11/23 09:56	08/11/23 20:19	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	08/11/23 09:56	08/11/23 20:19	1
1,4-Difluorobenzene (Surr)	113		70 - 130	08/11/23 09:56	08/11/23 20:19	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			08/21/23 14:34	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH03A**  
 Date Collected: 08/02/23 13:00  
 Date Received: 08/04/23 11:23  
 Sample Depth: 4

**Lab Sample ID: 890-5034-8**  
 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	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 17:55	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 17:55	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 17:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			08/15/23 14:06	08/18/23 17:55	1
o-Terphenyl	130		70 - 130			08/15/23 14:06	08/18/23 17:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7970		50.0	mg/Kg			08/09/23 03:31	10

**Client Sample ID: BH03B**  
 Date Collected: 08/02/23 13:15  
 Date Received: 08/04/23 11:23  
 Sample Depth: 7

**Lab Sample ID: 890-5034-9**  
 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		08/11/23 09:56	08/11/23 20:40	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 20:40	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 20:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/11/23 09:56	08/11/23 20:40	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/11/23 09:56	08/11/23 20:40	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/11/23 09:56	08/11/23 20:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130			08/11/23 09:56	08/11/23 20:40	1
1,4-Difluorobenzene (Surr)	110		70 - 130			08/11/23 09:56	08/11/23 20:40	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			08/21/23 14:34	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	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 18:17	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 18:17	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		08/15/23 14:06	08/18/23 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130			08/15/23 14:06	08/18/23 18:17	1
o-Terphenyl	129		70 - 130			08/15/23 14:06	08/18/23 18:17	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH03B**  
 Date Collected: 08/02/23 13:15  
 Date Received: 08/04/23 11:23  
 Sample Depth: 7

**Lab Sample ID: 890-5034-9**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3900		24.8	mg/Kg			08/09/23 03:38	5

**Client Sample ID: BH04**

Date Collected: 08/02/23 10:00  
 Date Received: 08/04/23 11:23  
 Sample Depth: 1

**Lab Sample ID: 890-5034-10**  
 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		08/11/23 09:56	08/11/23 21:01	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/11/23 09:56	08/11/23 21:01	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/11/23 09:56	08/11/23 21:01	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		08/11/23 09:56	08/11/23 21:01	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/11/23 09:56	08/11/23 21:01	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		08/11/23 09:56	08/11/23 21:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130			08/11/23 09:56	08/11/23 21:01	1
1,4-Difluorobenzene (Surr)	113		70 - 130			08/11/23 09:56	08/11/23 21:01	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			08/21/23 14:34	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	<50.2	U	50.2	mg/Kg		08/15/23 14:06	08/18/23 18:39	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		08/15/23 14:06	08/18/23 18:39	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		08/15/23 14:06	08/18/23 18:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			08/15/23 14:06	08/18/23 18:39	1
<i>o</i> -Terphenyl	116		70 - 130			08/15/23 14:06	08/18/23 18:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4720		50.4	mg/Kg			08/09/23 03:45	10

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH04A**  
 Date Collected: 08/02/23 10:10  
 Date Received: 08/04/23 11:23  
 Sample Depth: 3

**Lab Sample ID: 890-5034-11**  
 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		08/11/23 09:56	08/11/23 21:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/11/23 09:56	08/11/23 21:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/11/23 09:56	08/11/23 21:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/11/23 09:56	08/11/23 21:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/11/23 09:56	08/11/23 21:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/11/23 09:56	08/11/23 21:21	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		85		70 - 130		08/11/23 09:56	08/11/23 21:21	1
1,4-Difluorobenzene (Surr)		112		70 - 130		08/11/23 09:56	08/11/23 21:21	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			08/14/23 11:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	56.0		49.9	mg/Kg			08/21/23 14:34	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		08/15/23 14:06	08/18/23 19:00	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>56.0</b>		49.9	mg/Kg		08/15/23 14:06	08/18/23 19:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/15/23 14:06	08/18/23 19:00	1
<b>Surrogate</b>								
1-Chlorooctane	119		70 - 130			08/15/23 14:06	08/18/23 19:00	1
<i>o-Terphenyl</i>	122		70 - 130			08/15/23 14:06	08/18/23 19:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	427		4.99	mg/Kg			08/09/23 03:52	1

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**Surrogate Summary**

Client: Ensolum

Job ID: 890-5034-1

Project/Site: Superman to Lois Lane

SDG: 03D2024208

**Method: 8021B - Volatile Organic Compounds (GC)****Matrix: Solid****Prep Type: Total/NA****Percent Surrogate Recovery (Acceptance Limits)**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>BFB1 (70-130)</b>	<b>DFBZ1 (70-130)</b>										
880-31066-B-24-C MS	Matrix Spike	89	107										
880-31066-B-24-D MSD	Matrix Spike Duplicate	88	106										
890-5034-1	BH01A	86	111										
890-5034-2	BH01D	85	111										
890-5034-3	BH01N	75	109										
890-5034-4	BH02A	76	116										
890-5034-5	BH02B	79	113										
890-5034-6	BH02D	78	113										
890-5034-7	BH03A	84	117										
890-5034-8	BH03D	79	113										
890-5034-9	BH03G	79	110										
890-5034-10	BH04A	85	113										
890-5034-11	BH04A	85	112										
LCS 880-59910/1-A	Lab Control Sample	84	103										
LCSD 880-59910/2-A	Lab Control Sample Dup	83	103										
MB 880-59910/5-A	Method Blank	76	92										

**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)**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>1CO1 (70-130)</b>	<b>OTPH1 (70-130)</b>										
880-31837-A-21-D MS	Matrix Spike	112	99										
880-31837-A-21-E MSD	Matrix Spike Duplicate	92	85										
890-5034-1	BH01A	103	111										
890-5034-2	BH01D	121	125										
890-5034-3	BH01N	122	125										
890-5034-4	BH02A	121	128										
890-5034-5	BH02B	110	116										
890-5034-6	BH02D	120	125										
890-5034-7	BH03A	110	117										
890-5034-8	BH03D	125	130										
890-5034-9	BH03G	124	129										
890-5034-10	BH04A	108	116										
890-5034-11	BH04A	119	122										
LCS 880-60299/2-A	Lab Control Sample	111	122										
LCSD 880-60299/3-A	Lab Control Sample Dup	110	123										
MB 880-60299/1-A	Method Blank	117	123										

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum  
Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
SDG: 03D2024208

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

**Lab Sample ID: MB 880-59910/5-A**

**Matrix: Solid**

**Analysis Batch: 59922**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 59910**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	08/11/23 09:56		08/11/23 13:42		1
Toluene	<0.00200	U	0.00200		mg/Kg	08/11/23 09:56		08/11/23 13:42		1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	08/11/23 09:56		08/11/23 13:42		1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	08/11/23 09:56		08/11/23 13:42		1
o-Xylene	<0.00200	U	0.00200		mg/Kg	08/11/23 09:56		08/11/23 13:42		1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	08/11/23 09:56		08/11/23 13:42		1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Bromofluorobenzene (Surr)	76		70 - 130			08/11/23 09:56	08/11/23 13:42	1
1,4-Difluorobenzene (Surr)	92		70 - 130			08/11/23 09:56	08/11/23 13:42	1

**Lab Sample ID: LCS 880-59910/1-A**

**Matrix: Solid**

**Analysis Batch: 59922**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 59910**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec
	Added	Result	Qualifier							
Benzene	0.100	0.1146		mg/Kg			115		70 - 130	
Toluene	0.100	0.09913		mg/Kg			99		70 - 130	
Ethylbenzene	0.100	0.08285		mg/Kg			83		70 - 130	
m-Xylene & p-Xylene	0.200	0.1731		mg/Kg			87		70 - 130	
o-Xylene	0.100	0.08555		mg/Kg			86		70 - 130	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Bromofluorobenzene (Surr)	84		70 - 130					
1,4-Difluorobenzene (Surr)	103		70 - 130					

**Lab Sample ID: LCSD 880-59910/2-A**

**Matrix: Solid**

**Analysis Batch: 59922**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 59910**

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Benzene	0.100	0.1170		mg/Kg			117		70 - 130	2	35
Toluene	0.100	0.1009		mg/Kg			101		70 - 130	2	35
Ethylbenzene	0.100	0.08326		mg/Kg			83		70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1732		mg/Kg			87		70 - 130	0	35
o-Xylene	0.100	0.08537		mg/Kg			85		70 - 130	0	35

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Bromofluorobenzene (Surr)	83		70 - 130					
1,4-Difluorobenzene (Surr)	103		70 - 130					

**Lab Sample ID: 880-31066-B-24-C MS**

**Matrix: Solid**

**Analysis Batch: 59922**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 59910**

Analyte	Sample	Sample	Spike	MS	MS	Result	Qualifier	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<0.00198	U	0.0996	0.1010		mg/Kg			101		70 - 130
Toluene	<0.00198	U	0.0996	0.09056		mg/Kg			91		70 - 130

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

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

Lab Sample ID: 880-31066-B-24-C MS

Matrix: Solid

Analysis Batch: 59922

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 59910

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Ethylbenzene	<0.00198	U	0.0996	0.07425		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	<0.00397	U	0.199	0.1548		mg/Kg		78	70 - 130
o-Xylene	<0.00198	U	0.0996	0.07637		mg/Kg		77	70 - 130

Surrogate	MS	MS	%Recovery	Qualifier	Limits
	Result	Qualifier			
4-Bromofluorobenzene (Surr)	89		70 - 130		
1,4-Difluorobenzene (Surr)	107		70 - 130		

Lab Sample ID: 880-31066-B-24-D MSD

Matrix: Solid

Analysis Batch: 59922

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 59910

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Benzene	<0.00198	U	0.0994	0.1073		mg/Kg		108	70 - 130
Toluene	<0.00198	U	0.0994	0.09276		mg/Kg		93	70 - 130
Ethylbenzene	<0.00198	U	0.0994	0.07384		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	<0.00397	U	0.199	0.1527		mg/Kg		77	70 - 130
o-Xylene	<0.00198	U	0.0994	0.07498		mg/Kg		75	70 - 130

Surrogate	MSD	MSD	%Recovery	Qualifier	Limits
	Result	Qualifier			
4-Bromofluorobenzene (Surr)	88		70 - 130		
1,4-Difluorobenzene (Surr)	106		70 - 130		

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

Lab Sample ID: MB 880-60299/1-A

Matrix: Solid

Analysis Batch: 60522

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60299

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/15/23 14:06	08/18/23 08:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/15/23 14:06	08/18/23 08:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/15/23 14:06	08/18/23 08:05	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1-Chlorooctane	117		70 - 130			08/15/23 14:06	08/18/23 08:05	1
o-Terphenyl	123		70 - 130			08/15/23 14:06	08/18/23 08:05	1

Lab Sample ID: LCS 880-60299/2-A

Matrix: Solid

Analysis Batch: 60522

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60299

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	1013		mg/Kg		101	70 - 130
Diesel Range Organics (Over C10-C28)	1000	913.6		mg/Kg		91	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
SDG: 03D2024208

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

Lab Sample ID: LCS 880-60299/2-A

Matrix: Solid

Analysis Batch: 60522

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60299

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
<i>o</i> -Terphenyl	122		70 - 130

Lab Sample ID: LCSD 880-60299/3-A

Matrix: Solid

Analysis Batch: 60522

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 60299

Analyte	Spike	LCSD	LCSD		%Rec	RPD
	Added	Result	Qualifier	Unit	D	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	962.6		mg/Kg	96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	867.1		mg/Kg	87	70 - 130
					5	20

Surrogate	LCSD	LCSD			
	%Recovery	Qualifier	Limits		
1-Chlorooctane	110		70 - 130		
<i>o</i> -Terphenyl	123		70 - 130		

Lab Sample ID: 880-31837-A-21-D MS

Matrix: Solid

Analysis Batch: 60522

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 60299

Analyte	Sample	Sample	Spike	MS	MS		%Rec	
	Result	Qualifier	Added	Result	Qualifier	Unit	D	Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1010	1232		mg/Kg	121	70 - 130
Diesel Range Organics (Over C10-C28)	285	F1	1010	849.4	F1	mg/Kg	56	70 - 130

Surrogate	MS	MS			
	%Recovery	Qualifier	Limits		
1-Chlorooctane	112		70 - 130		
<i>o</i> -Terphenyl	99		70 - 130		

Lab Sample ID: 880-31837-A-21-E MSD

Matrix: Solid

Analysis Batch: 60522

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 60299

Analyte	Sample	Sample	Spike	MSD	MSD		%Rec		RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	Limits	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1010	1251		mg/Kg	123	70 - 130	1
Diesel Range Organics (Over C10-C28)	285	F1	1010	723.8	F1	mg/Kg	44	70 - 130	16

Surrogate	MSD	MSD			
	%Recovery	Qualifier	Limits		
1-Chlorooctane	92		70 - 130		
<i>o</i> -Terphenyl	85		70 - 130		

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## QC Sample Results

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Method: 300.0 - Anions, Ion Chromatography****Lab Sample ID: MB 880-59363/1-A****Matrix: Solid****Analysis Batch: 59623**

**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			08/09/23 01:55	1

**Lab Sample ID: LCS 880-59363/2-A****Matrix: Solid****Analysis Batch: 59623**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	250	243.7		mg/Kg		97	90 - 110

**Lab Sample ID: LCSD 880-59363/3-A****Matrix: Solid****Analysis Batch: 59623**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Chloride	250	243.6		mg/Kg		97	90 - 110	0 20

**Lab Sample ID: 890-5034-1 MS****Matrix: Solid****Analysis Batch: 59623**

**Client Sample ID: BH01A**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chloride	1530	F1	1250	2532	F1	mg/Kg		80	90 - 110

**Lab Sample ID: 890-5034-1 MSD****Matrix: Solid****Analysis Batch: 59623**

**Client Sample ID: BH01A**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	Limit
Chloride	1530	F1	1250	2535	F1	mg/Kg		80	90 - 110	0 20

**Lab Sample ID: 890-5034-11 MS****Matrix: Solid****Analysis Batch: 59623**

**Client Sample ID: BH04A**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chloride	427		250	657.1		mg/Kg		92	90 - 110

**Lab Sample ID: 890-5034-11 MSD****Matrix: Solid****Analysis Batch: 59623**

**Client Sample ID: BH04A**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	Limit
Chloride	427		250	652.0		mg/Kg		90	90 - 110	1 20

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**GC VOA****Prep Batch: 59910**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Total/NA	Solid	5035	
890-5034-2	BH01D	Total/NA	Solid	5035	
890-5034-3	BH01N	Total/NA	Solid	5035	
890-5034-4	BH02A	Total/NA	Solid	5035	
890-5034-5	BH02B	Total/NA	Solid	5035	
890-5034-6	BH02D	Total/NA	Solid	5035	
890-5034-7	BH03A	Total/NA	Solid	5035	
890-5034-8	BH03D	Total/NA	Solid	5035	
890-5034-9	BH03G	Total/NA	Solid	5035	
890-5034-10	BH04A	Total/NA	Solid	5035	
890-5034-11	BH04A	Total/NA	Solid	5035	
MB 880-59910/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-59910/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-59910/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-31066-B-24-C MS	Matrix Spike	Total/NA	Solid	5035	
880-31066-B-24-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 59922**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Total/NA	Solid	8021B	59910
890-5034-2	BH01D	Total/NA	Solid	8021B	59910
890-5034-3	BH01N	Total/NA	Solid	8021B	59910
890-5034-4	BH02A	Total/NA	Solid	8021B	59910
890-5034-5	BH02B	Total/NA	Solid	8021B	59910
890-5034-6	BH02D	Total/NA	Solid	8021B	59910
890-5034-7	BH03A	Total/NA	Solid	8021B	59910
890-5034-8	BH03D	Total/NA	Solid	8021B	59910
890-5034-9	BH03G	Total/NA	Solid	8021B	59910
890-5034-10	BH04A	Total/NA	Solid	8021B	59910
890-5034-11	BH04A	Total/NA	Solid	8021B	59910
MB 880-59910/5-A	Method Blank	Total/NA	Solid	8021B	59910
LCS 880-59910/1-A	Lab Control Sample	Total/NA	Solid	8021B	59910
LCSD 880-59910/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	59910
880-31066-B-24-C MS	Matrix Spike	Total/NA	Solid	8021B	59910
880-31066-B-24-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	59910

**Analysis Batch: 60097**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Total/NA	Solid	Total BTEX	
890-5034-2	BH01D	Total/NA	Solid	Total BTEX	
890-5034-3	BH01N	Total/NA	Solid	Total BTEX	
890-5034-4	BH02A	Total/NA	Solid	Total BTEX	
890-5034-5	BH02B	Total/NA	Solid	Total BTEX	
890-5034-6	BH02D	Total/NA	Solid	Total BTEX	
890-5034-7	BH03A	Total/NA	Solid	Total BTEX	
890-5034-8	BH03D	Total/NA	Solid	Total BTEX	
890-5034-9	BH03G	Total/NA	Solid	Total BTEX	
890-5034-10	BH04A	Total/NA	Solid	Total BTEX	
890-5034-11	BH04A	Total/NA	Solid	Total BTEX	

**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**GC Semi VOA****Prep Batch: 60299**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Total/NA	Solid	8015NM Prep	
890-5034-2	BH01D	Total/NA	Solid	8015NM Prep	
890-5034-3	BH01N	Total/NA	Solid	8015NM Prep	
890-5034-4	BH02A	Total/NA	Solid	8015NM Prep	
890-5034-5	BH02B	Total/NA	Solid	8015NM Prep	
890-5034-6	BH02D	Total/NA	Solid	8015NM Prep	
890-5034-7	BH03A	Total/NA	Solid	8015NM Prep	
890-5034-8	BH03D	Total/NA	Solid	8015NM Prep	
890-5034-9	BH03G	Total/NA	Solid	8015NM Prep	
890-5034-10	BH04A	Total/NA	Solid	8015NM Prep	
890-5034-11	BH04A	Total/NA	Solid	8015NM Prep	
MB 880-60299/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60299/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60299/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31837-A-21-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-31837-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 60522**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Total/NA	Solid	8015B NM	60299
890-5034-2	BH01D	Total/NA	Solid	8015B NM	60299
890-5034-3	BH01N	Total/NA	Solid	8015B NM	60299
890-5034-4	BH02A	Total/NA	Solid	8015B NM	60299
890-5034-5	BH02B	Total/NA	Solid	8015B NM	60299
890-5034-6	BH02D	Total/NA	Solid	8015B NM	60299
890-5034-7	BH03A	Total/NA	Solid	8015B NM	60299
890-5034-8	BH03D	Total/NA	Solid	8015B NM	60299
890-5034-9	BH03G	Total/NA	Solid	8015B NM	60299
890-5034-10	BH04A	Total/NA	Solid	8015B NM	60299
890-5034-11	BH04A	Total/NA	Solid	8015B NM	60299
MB 880-60299/1-A	Method Blank	Total/NA	Solid	8015B NM	60299
LCS 880-60299/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60299
LCSD 880-60299/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60299
880-31837-A-21-D MS	Matrix Spike	Total/NA	Solid	8015B NM	60299
880-31837-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	60299

**Analysis Batch: 60742**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Total/NA	Solid	8015 NM	
890-5034-2	BH01D	Total/NA	Solid	8015 NM	
890-5034-3	BH01N	Total/NA	Solid	8015 NM	
890-5034-4	BH02A	Total/NA	Solid	8015 NM	
890-5034-5	BH02B	Total/NA	Solid	8015 NM	
890-5034-6	BH02D	Total/NA	Solid	8015 NM	
890-5034-7	BH03A	Total/NA	Solid	8015 NM	
890-5034-8	BH03D	Total/NA	Solid	8015 NM	
890-5034-9	BH03G	Total/NA	Solid	8015 NM	
890-5034-10	BH04A	Total/NA	Solid	8015 NM	
890-5034-11	BH04A	Total/NA	Solid	8015 NM	

**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**HPLC/IC****Leach Batch: 59363**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Soluble	Solid	DI Leach	
890-5034-2	BH01D	Soluble	Solid	DI Leach	
890-5034-3	BH01N	Soluble	Solid	DI Leach	
890-5034-4	BH02A	Soluble	Solid	DI Leach	
890-5034-5	BH02B	Soluble	Solid	DI Leach	
890-5034-6	BH02D	Soluble	Solid	DI Leach	
890-5034-7	BH03A	Soluble	Solid	DI Leach	
890-5034-8	BH03D	Soluble	Solid	DI Leach	
890-5034-9	BH03G	Soluble	Solid	DI Leach	
890-5034-10	BH04A	Soluble	Solid	DI Leach	
890-5034-11	BH04A	Soluble	Solid	DI Leach	
MB 880-59363/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59363/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59363/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5034-1 MS	BH01A	Soluble	Solid	DI Leach	
890-5034-1 MSD	BH01A	Soluble	Solid	DI Leach	
890-5034-11 MS	BH04A	Soluble	Solid	DI Leach	
890-5034-11 MSD	BH04A	Soluble	Solid	DI Leach	

**Analysis Batch: 59623**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5034-1	BH01A	Soluble	Solid	300.0	59363
890-5034-2	BH01D	Soluble	Solid	300.0	59363
890-5034-3	BH01N	Soluble	Solid	300.0	59363
890-5034-4	BH02A	Soluble	Solid	300.0	59363
890-5034-5	BH02B	Soluble	Solid	300.0	59363
890-5034-6	BH02D	Soluble	Solid	300.0	59363
890-5034-7	BH03A	Soluble	Solid	300.0	59363
890-5034-8	BH03D	Soluble	Solid	300.0	59363
890-5034-9	BH03G	Soluble	Solid	300.0	59363
890-5034-10	BH04A	Soluble	Solid	300.0	59363
890-5034-11	BH04A	Soluble	Solid	300.0	59363
MB 880-59363/1-A	Method Blank	Soluble	Solid	300.0	59363
LCS 880-59363/2-A	Lab Control Sample	Soluble	Solid	300.0	59363
LCSD 880-59363/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59363
890-5034-1 MS	BH01A	Soluble	Solid	300.0	59363
890-5034-1 MSD	BH01A	Soluble	Solid	300.0	59363
890-5034-11 MS	BH04A	Soluble	Solid	300.0	59363
890-5034-11 MSD	BH04A	Soluble	Solid	300.0	59363

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH01A**

Date Collected: 08/02/23 09:00

Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-1**

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			5.01 g	5 mL	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 14:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 14:59	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		5			59623	08/09/23 02:16	CH	EET MID

**Client Sample ID: BH01D**

Date Collected: 08/02/23 13:40

Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-2**

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	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 14:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 15:43	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		10			59623	08/09/23 02:37	CH	EET MID

**Client Sample ID: BH01N**

Date Collected: 08/02/23 14:30

Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-3**

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	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 18:35	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 16:05	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		10			59623	08/09/23 02:43	CH	EET MID

**Client Sample ID: BH02A**

Date Collected: 08/02/23 09:20

Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-4**

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	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 18:56	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH02A**

Date Collected: 08/02/23 09:20  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-4**

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			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 16:27	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		10			59623	08/09/23 02:50	CH	EET MID

**Client Sample ID: BH02B**

Date Collected: 08/02/23 09:25  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-5**

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			4.99 g	5 mL	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 19:17	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 16:49	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		10			59623	08/09/23 02:57	CH	EET MID

**Client Sample ID: BH02D**

Date Collected: 08/02/23 13:30  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-6**

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			5.02 g	5 mL	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 19:38	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 17:12	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		5			59623	08/09/23 03:18	CH	EET MID

**Client Sample ID: BH03A**

Date Collected: 08/02/23 09:40  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-7**

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			5.05 g	5 mL	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 19:58	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 17:33	SM	EET MID

Eurofins Carlsbad

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH03A**

Date Collected: 08/02/23 09:40  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-7**

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			5.03 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		10			59623	08/09/23 03:24	CH	EET MID

**Client Sample ID: BH03D**

Date Collected: 08/02/23 13:00  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-8**

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	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 20:19	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 17:55	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		10			59623	08/09/23 03:31	CH	EET MID

**Client Sample ID: BH03G**

Date Collected: 08/02/23 13:15  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-9**

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			4.98 g	5 mL	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 20:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 18:17	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		5			59623	08/09/23 03:38	CH	EET MID

**Client Sample ID: BH04A**

Date Collected: 08/02/23 10:00  
 Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-10**

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			5.04 g	5 mL	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 21:01	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 18:39	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		10			59623	08/09/23 03:45	CH	EET MID

Eurofins Carlsbad

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

**Client Sample ID: BH04A**

Date Collected: 08/02/23 10:10

Date Received: 08/04/23 11:23

**Lab Sample ID: 890-5034-11**

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			5.00 g	5 mL	59910	08/11/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59922	08/11/23 21:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60097	08/14/23 11:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			60742	08/21/23 14:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	60299	08/15/23 14:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60522	08/18/23 19:00	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59363	08/04/23 16:18	KS	EET MID
Soluble	Analysis	300.0		1			59623	08/09/23 03:52	CH	EET MID

**Laboratory References:**

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

Eurofins Carlsbad

## Accreditation/Certification Summary

Client: Ensolum

Job ID: 890-5034-1

Project/Site: Superman to Lois Lane

SDG: 03D2024208

**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	T104704400-23-26	06-30-24

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

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Eurofins Carlsbad

**Method Summary**

Client: Ensolum  
 Project/Site: Superman to Lois Lane

Job ID: 890-5034-1  
 SDG: 03D2024208

<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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

Eurofins Carlsbad

**Sample Summary**

Client: Ensolum

Job ID: 890-5034-1

Project/Site: Superman to Lois Lane

SDG: 03D2024208

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-5034-1	BH01A	Solid	08/02/23 09:00	08/04/23 11:23	1	1
890-5034-2	BH01D	Solid	08/02/23 13:40	08/04/23 11:23	4	2
890-5034-3	BH01N	Solid	08/02/23 14:30	08/04/23 11:23	14	3
890-5034-4	BH02A	Solid	08/02/23 09:20	08/04/23 11:23	1	4
890-5034-5	BH02B	Solid	08/02/23 09:25	08/04/23 11:23	2	5
890-5034-6	BH02D	Solid	08/02/23 13:30	08/04/23 11:23	4	6
890-5034-7	BH03A	Solid	08/02/23 09:40	08/04/23 11:23	1	7
890-5034-8	BH03D	Solid	08/02/23 13:00	08/04/23 11:23	4	8
890-5034-9	BH03G	Solid	08/02/23 13:15	08/04/23 11:23	7	9
890-5034-10	BH04A	Solid	08/02/23 10:00	08/04/23 11:23	1	10
890-5034-11	BH04A	Solid	08/02/23 10:10	08/04/23 11:23	3	11

## **Chain of Custody**

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

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

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

Project Manager:	Hadlie Green		Bill to: (if different)		Hadlie Green		Work Order Comments															
Company Name:	Ensolum, LLC		Company Name:		Ensolum, LLC		Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>															
Address:	601 N Marienfeld St Suite 400		Address:		601 N Marienfeld St Suite 400		State of Project:															
City, State ZIP:	Midland, TX 79701		City, State ZIP:		Midland, TX 79701		Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>															
Phone:	432-557-8895		Email:		hgreen@ensolum.com		Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:															
Project Name:	Superman to Lois Lane		Turn Around		ANALYSIS REQUEST										Preservative Codes							
Project Number:	03D2024208		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush		Parameters	Pres. Code											None: NO	DI Water: H <sub>2</sub> O				
Project Location:	32.0186,-103.7138		Due Date:														Cool: Cool	MeOH: Me				
Sampler's Name:	Peter Van Patten		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO <sub>3</sub> : HN				
PO #:																	H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub>	NaOH: Na				
SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	No	Wet Ice:			<input checked="" type="checkbox"/> Yes	No											H <sub>3</sub> PO <sub>4</sub> : HP			
Samples Received Intact:	<input checked="" type="checkbox"/> Yes	No	Thermometer ID:														NaHSO <sub>4</sub> : NABIS					
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	Correction Factor:											Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>							
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	Temperature Reading:											Zn Acetate+NaOH: Zn							
Total Containers:			Corrected Temperature:												NaOH+Ascorbic Acid: SAPC							
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											Sample Comments	
BH01A		Soil	8/2/2023	900	1	Comp	1	x	x	x												
BH01D		Soil	8/2/2023	1340	4	Comp	1	x	x	x												
BH01N		Soil	8/2/2023	1430	14	Comp	1	x	x	x												
BH02A		Soil	8/2/2023	920	1	Comp	1	x	x	x												
BH02B		Soil	8/2/2023	925	2	Comp	1	x	x	x												
BH02D		Soil	8/2/2023	1330	4	Comp	1	x	x	x												
BH03A		Soil	8/2/2023	940	1	Comp	1	x	x	x												
BH03D		Soil	8/2/2023	1300	4	Comp	1	x	x	x												
BH03G		Soil	8/2/2023	1315	7	Comp	1	x	x	x												
BH04A		Soil	8/2/2023	1000	1	Comp	1	x	x	x												

Total 2007 / 6010 2008 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn

**Circle Method(s) and Metal(s) to be analyzed**

TCI P / SPI P 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Peter Van Raak	Cice Cip	8-4-23 1123			
3			4		
5			6		



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 2 of 2

Project Manager:	Hadlie Green		Bill to: (if different)	Hadlie Green	
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	

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

Project Name:		Superman to Lois Lane		Turn Around		Pres. code	ANALYSIS REQUEST										Preservative Codes								
Project Number:		03D2024208		<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush		Parameters																		
Project Location:		32.0186,-103.7138		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:																							
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)		TPH (8015)		BTEX (8021)												Sample Comments	
BH04C		Soil	8/2/2023	1010	3	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 <sub>2</sub> Na Sr Ti Sn U V Zn																							
Circle Method(s) and Metal(s) to be analyzed		TCPL / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471																							

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Peter Van Patten	Cave Cup	8-4-23 11:23 <sup>2</sup>			
3		14			
5		6			

Revised Date: 08/25/2020 Rev. 2020.2

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5034-1

SDG Number: 03D2024208

**Login Number:** 5034**List Source:** Eurofins Carlsbad**List Number:** 1**Creator:** Clifton, Cloe

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: 890-5034-1

SDG Number: 03D2024208

**Login Number:** 5034**List Source:** Eurofins Midland**List Number:** 2**List Creation:** 08/07/23 09:38 AM**Creator:** Rodriguez, Leticia

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A		



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 9/19/2023 12:58:30 PM

## JOB DESCRIPTION

Superman Water Treatment Facility  
SDG NUMBER 03D2024208

## JOB NUMBER

890-5274-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# 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  
9/19/2023 12:58:30 PM

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

Client: Ensolum  
Project/Site: Superman Water Treatment Facility

Laboratory Job ID: 890-5274-1  
SDG: 03D2024208

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
SDG: 03D2024208

### Qualifiers

#### GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery 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, 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: Superman Water Treatment Facility

Job ID: 890-5274-1  
SDG: 03D2024208

### **Job ID: 890-5274-1**

#### **Laboratory: Eurofins Carlsbad**

##### **Narrative**

##### **Job Narrative 890-5274-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

##### **Receipt**

The samples were received on 9/14/2023 4:40 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 4.2°C

##### **Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-5274-1), FS02 (890-5274-2), FS03 (890-5274-3), FS04 (890-5274-4), FS05 (890-5274-5), FS06 (890-5274-6), FS07 (890-5274-7), FS08 (890-5274-8), FS09 (890-5274-9), FS10 (890-5274-10), FS11 (890-5274-11), FS12 (890-5274-12), FS13 (890-5274-13), FS14 (890-5274-14), FS15 (890-5274-15), FS16 (890-5274-16), FS17 (890-5274-17), FS18 (890-5274-18), FS19 (890-5274-19), FS20 (890-5274-20), FS21 (890-5274-21), SW01 (890-5274-22), SW02 (890-5274-23), SW03 (890-5274-24), SW04 (890-5274-25) and SW05 (890-5274-26).

##### **GC VOA**

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS01 (890-5274-1), SW02 (890-5274-23), SW03 (890-5274-24) and SW05 (890-5274-26). 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 880-62674 and analytical batch 880-62672 was outside the upper control limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-62674 and analytical batch 880-62672 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

##### **GC Semi VOA**

Method 8015MOD\_NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-62707 and analytical batch 880-62670 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-62696 and analytical batch 880-62664 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: FS02 (890-5274-2), FS04 (890-5274-4), FS06 (890-5274-6), FS07 (890-5274-7), FS08 (890-5274-8), FS09 (890-5274-9) and FS10 (890-5274-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: FS11 (890-5274-11), FS17 (890-5274-17) and FS19 (890-5274-19). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

**Case Narrative**

Client: Ensolum  
Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
SDG: 03D2024208

**Job ID: 890-5274-1 (Continued)****Laboratory: Eurofins Carlsbad (Continued)**

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-62664/20), (CCV 880-62664/31), (CCV 880-62664/5) and (LCS 880-62696/2-A). 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 880-62675 and analytical batch 880-62744 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.

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-62676 and analytical batch 880-62764 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: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS01****Lab Sample ID: 890-5274-1**

Matrix: Solid

Date Collected: 09/14/23 10:30

Date Received: 09/14/23 16:40

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00952		0.00199	mg/Kg	09/18/23 08:50	09/18/23 11:38		1
Toluene	0.126	F1	0.00199	mg/Kg	09/18/23 08:50	09/18/23 11:38		1
Ethylbenzene	0.00966		0.00199	mg/Kg	09/18/23 08:50	09/18/23 11:38		1
m-Xylene & p-Xylene	0.0235		0.00398	mg/Kg	09/18/23 08:50	09/18/23 11:38		1
o-Xylene	0.0146	F1	0.00199	mg/Kg	09/18/23 08:50	09/18/23 11:38		1
Xylenes, Total	0.0381		0.00398	mg/Kg	09/18/23 08:50	09/18/23 11:38		1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130			09/18/23 08:50	09/18/23 11:38	
1,4-Difluorobenzene (Surr)	103		70 - 130			09/18/23 08:50	09/18/23 11:38	

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.183		0.00398	mg/Kg			09/18/23 11:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			09/18/23 11:14	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	<50.4	U	50.4	mg/Kg	09/18/23 10:12	09/18/23 11:14		1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg	09/18/23 10:12	09/18/23 11:14		1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg	09/18/23 10:12	09/18/23 11:14		1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	129		70 - 130			09/18/23 10:12	09/18/23 11:14	
<i>o</i> -Terphenyl	114		70 - 130			09/18/23 10:12	09/18/23 11:14	

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.2		5.04	mg/Kg			09/18/23 12:54	1

**Client Sample ID: FS02****Lab Sample ID: 890-5274-2**

Matrix: Solid

Date Collected: 09/14/23 10:40

Date Received: 09/14/23 16:40

Sample Depth: 3

**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	09/18/23 08:50	09/18/23 11:58		1
Toluene	<0.00198	U	0.00198	mg/Kg	09/18/23 08:50	09/18/23 11:58		1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg	09/18/23 08:50	09/18/23 11:58		1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg	09/18/23 08:50	09/18/23 11:58		1
o-Xylene	<0.00198	U	0.00198	mg/Kg	09/18/23 08:50	09/18/23 11:58		1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg	09/18/23 08:50	09/18/23 11:58		1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	91		70 - 130			09/18/23 08:50	09/18/23 11:58	

Eurofins Carlsbad

**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS02****Lab Sample ID: 890-5274-2**

Matrix: Solid

Date Collected: 09/14/23 10:40  
 Date Received: 09/14/23 16:40  
 Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	09/18/23 08:50	09/18/23 11:58	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			09/18/23 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			09/18/23 12:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 12:20	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 12:20	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 12:20	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	138	S1+	70 - 130	09/18/23 10:12	09/18/23 12:20	1
o-Terphenyl	122		70 - 130	09/18/23 10:12	09/18/23 12:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	49.8		5.02	mg/Kg			09/18/23 13:14	1

**Client Sample ID: FS03****Lab Sample ID: 890-5274-3**

Matrix: Solid

Date Collected: 09/14/23 10:50  
 Date Received: 09/14/23 16:40  
 Sample Depth: 3

**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		09/18/23 08:50	09/18/23 12:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 12:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 12:19	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/18/23 08:50	09/18/23 12:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 12:19	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/18/23 08:50	09/18/23 12:19	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	09/18/23 08:50	09/18/23 12:19	1
1,4-Difluorobenzene (Surr)	79		70 - 130	09/18/23 08:50	09/18/23 12:19	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			09/18/23 12:19	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			09/18/23 12:42	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS03****Lab Sample ID: 890-5274-3**

Date Collected: 09/14/23 10:50

Matrix: Solid

Date Received: 09/14/23 16:40

Sample Depth: 3

**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		09/18/23 10:12	09/18/23 12:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/18/23 10:12	09/18/23 12:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/18/23 10:12	09/18/23 12:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130			09/18/23 10:12	09/18/23 12:42	1
o-Terphenyl	107		70 - 130			09/18/23 10:12	09/18/23 12:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	49.4		5.05	mg/Kg			09/18/23 13:20	1

**Client Sample ID: FS04****Lab Sample ID: 890-5274-4**

Date Collected: 09/14/23 11:00

Matrix: Solid

Date Received: 09/14/23 16:40

Sample Depth: 4

**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		09/18/23 08:50	09/18/23 12:39	1
Toluene	<0.00198	U	0.00198	mg/Kg		09/18/23 08:50	09/18/23 12:39	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		09/18/23 08:50	09/18/23 12:39	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		09/18/23 08:50	09/18/23 12:39	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		09/18/23 08:50	09/18/23 12:39	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		09/18/23 08:50	09/18/23 12:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130			09/18/23 08:50	09/18/23 12:39	1
1,4-Difluorobenzene (Surr)	96		70 - 130			09/18/23 08:50	09/18/23 12:39	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			09/18/23 12:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			09/18/23 13:05	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	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 13:05	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 13:05	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 13:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130			09/18/23 10:12	09/18/23 13:05	1
o-Terphenyl	121		70 - 130			09/18/23 10:12	09/18/23 13:05	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS04**

Date Collected: 09/14/23 11:00  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**Lab Sample ID: 890-5274-4**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1130		5.05	mg/Kg			09/18/23 13:27	1

**Client Sample ID: FS05**

Date Collected: 09/14/23 11:10  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**Lab Sample ID: 890-5274-5**

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		09/18/23 08:50	09/18/23 13:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 13:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 13:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/18/23 08:50	09/18/23 13:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 13:00	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/18/23 08:50	09/18/23 13:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			09/18/23 08:50	09/18/23 13:00	1
1,4-Difluorobenzene (Surr)	91		70 - 130			09/18/23 08:50	09/18/23 13:00	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			09/18/23 13:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			09/18/23 13:26	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	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 13:26	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 13:26	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 13:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			09/18/23 10:12	09/18/23 13:26	1
<i>o</i> -Terphenyl	111		70 - 130			09/18/23 10:12	09/18/23 13:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2610		25.2	mg/Kg			09/18/23 13:33	5

Eurofins Carlsbad

**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS06****Lab Sample ID: 890-5274-6**

Matrix: Solid

Date Collected: 09/14/23 11:20  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**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	09/18/23 08:50	09/18/23 13:20		1
Toluene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:50	09/18/23 13:20		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:50	09/18/23 13:20		1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg	09/18/23 08:50	09/18/23 13:20		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:50	09/18/23 13:20		1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg	09/18/23 08:50	09/18/23 13:20		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		84		70 - 130		09/18/23 08:50	09/18/23 13:20	1
1,4-Difluorobenzene (Surr)		81		70 - 130		09/18/23 08:50	09/18/23 13:20	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			09/18/23 13:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			09/18/23 13:49	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	<50.2	U	50.2	mg/Kg	09/18/23 10:12	09/18/23 13:49		1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg	09/18/23 10:12	09/18/23 13:49		1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg	09/18/23 10:12	09/18/23 13:49		1
<b>Surrogate</b>								
1-Chlorooctane								1
o-Terphenyl								1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2830		25.0	mg/Kg			09/18/23 13:53	5

**Client Sample ID: FS07****Lab Sample ID: 890-5274-7**

Matrix: Solid

Date Collected: 09/14/23 11:30  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**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	09/18/23 08:50	09/18/23 13:41		1
Toluene	<0.00202	U	0.00202	mg/Kg	09/18/23 08:50	09/18/23 13:41		1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg	09/18/23 08:50	09/18/23 13:41		1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg	09/18/23 08:50	09/18/23 13:41		1
o-Xylene	<0.00202	U	0.00202	mg/Kg	09/18/23 08:50	09/18/23 13:41		1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg	09/18/23 08:50	09/18/23 13:41		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		90		70 - 130		09/18/23 08:50	09/18/23 13:41	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS07****Lab Sample ID: 890-5274-7**

Matrix: Solid

Date Collected: 09/14/23 11:30  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	83		70 - 130	09/18/23 08:50	09/18/23 13:41	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			09/18/23 13:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			09/18/23 14:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		09/18/23 10:12	09/18/23 14:10	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		09/18/23 10:12	09/18/23 14:10	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		09/18/23 10:12	09/18/23 14:10	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	139	S1+	70 - 130	09/18/23 10:12	09/18/23 14:10	1
o-Terphenyl	125		70 - 130	09/18/23 10:12	09/18/23 14:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5590		24.9	mg/Kg			09/18/23 14:00	5

**Client Sample ID: FS08****Lab Sample ID: 890-5274-8**

Matrix: Solid

Date Collected: 09/14/23 12:20  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**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		09/18/23 08:50	09/18/23 14:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 14:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 14:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 14:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 14:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 14:02	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	09/18/23 08:50	09/18/23 14:02	1
1,4-Difluorobenzene (Surr)	86		70 - 130	09/18/23 08:50	09/18/23 14:02	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			09/18/23 14:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			09/18/23 14:32	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS08****Lab Sample ID: 890-5274-8**

Matrix: Solid

Date Collected: 09/14/23 12:20  
 Date Received: 09/14/23 16:40

Sample Depth: 4

**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	<50.5	U	50.5	mg/Kg		09/18/23 10:12	09/18/23 14:32	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		09/18/23 10:12	09/18/23 14:32	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		09/18/23 10:12	09/18/23 14:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130			09/18/23 10:12	09/18/23 14:32	1
o-Terphenyl	121		70 - 130			09/18/23 10:12	09/18/23 14:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5770		50.2	mg/Kg			09/18/23 14:07	10

**Client Sample ID: FS09****Lab Sample ID: 890-5274-9**

Matrix: Solid

Date Collected: 09/14/23 12:30  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**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		09/18/23 08:50	09/18/23 14:22	1
Toluene	<0.00198	U	0.00198	mg/Kg		09/18/23 08:50	09/18/23 14:22	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		09/18/23 08:50	09/18/23 14:22	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		09/18/23 08:50	09/18/23 14:22	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		09/18/23 08:50	09/18/23 14:22	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		09/18/23 08:50	09/18/23 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			09/18/23 08:50	09/18/23 14:22	1
1,4-Difluorobenzene (Surr)	89		70 - 130			09/18/23 08:50	09/18/23 14:22	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			09/18/23 14:22	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			09/18/23 14:54	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		09/18/23 10:12	09/18/23 14:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/18/23 10:12	09/18/23 14:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/18/23 10:12	09/18/23 14:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	149	S1+	70 - 130			09/18/23 10:12	09/18/23 14:54	1
o-Terphenyl	133	S1+	70 - 130			09/18/23 10:12	09/18/23 14:54	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS09****Lab Sample ID: 890-5274-9**

Matrix: Solid

Date Collected: 09/14/23 12:30  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6070		49.6	mg/Kg			09/18/23 14:13	10

**Client Sample ID: FS10****Lab Sample ID: 890-5274-10**

Matrix: Solid

Date Collected: 09/14/23 12:40  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**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		09/18/23 08:50	09/18/23 14:43	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 14:43	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 14:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 14:43	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 14:43	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 14:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		70 - 130			09/18/23 08:50	09/18/23 14:43	1
1,4-Difluorobenzene (Surr)	93		70 - 130			09/18/23 08:50	09/18/23 14:43	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			09/18/23 14:43	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			09/18/23 15:16	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		09/18/23 10:12	09/18/23 15:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/18/23 10:12	09/18/23 15:16	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/18/23 10:12	09/18/23 15:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130			09/18/23 10:12	09/18/23 15:16	1
<i>o</i> -Terphenyl	120		70 - 130			09/18/23 10:12	09/18/23 15:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4160		24.9	mg/Kg			09/18/23 14:20	5

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS11**

Date Collected: 09/14/23 12:50

Date Received: 09/14/23 16:40

Sample Depth: 4

**Lab Sample ID: 890-5274-11**

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	09/18/23 08:50	09/18/23 16:06		1
Toluene	<b>0.0106</b>		0.00201	mg/Kg	09/18/23 08:50	09/18/23 16:06		1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg	09/18/23 08:50	09/18/23 16:06		1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg	09/18/23 08:50	09/18/23 16:06		1
o-Xylene	<0.00201	U	0.00201	mg/Kg	09/18/23 08:50	09/18/23 16:06		1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg	09/18/23 08:50	09/18/23 16:06		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		91		70 - 130		09/18/23 08:50	09/18/23 16:06	1
1,4-Difluorobenzene (Surr)		119		70 - 130		09/18/23 08:50	09/18/23 16:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<b>0.0106</b>		0.00402	mg/Kg			09/18/23 16:06	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			09/18/23 16:00	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	09/18/23 10:12	09/18/23 16:00		1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg	09/18/23 10:12	09/18/23 16:00		1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	09/18/23 10:12	09/18/23 16:00		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane		131	S1+	70 - 130		09/18/23 10:12	09/18/23 16:00	1
o-Terphenyl		117		70 - 130		09/18/23 10:12	09/18/23 16:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<b>6050</b>	F1	50.1	mg/Kg			09/18/23 14:27	10

**Client Sample ID: FS12**

Date Collected: 09/14/23 13:00

Date Received: 09/14/23 16:40

Sample Depth: 4

**Lab Sample ID: 890-5274-12**

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	09/18/23 08:50	09/18/23 16:27		1
Toluene	<0.00201	U	0.00201	mg/Kg	09/18/23 08:50	09/18/23 16:27		1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg	09/18/23 08:50	09/18/23 16:27		1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg	09/18/23 08:50	09/18/23 16:27		1
o-Xylene	<0.00201	U	0.00201	mg/Kg	09/18/23 08:50	09/18/23 16:27		1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg	09/18/23 08:50	09/18/23 16:27		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		91		70 - 130		09/18/23 08:50	09/18/23 16:27	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS12****Lab Sample ID: 890-5274-12**

Matrix: Solid

Date Collected: 09/14/23 13:00  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	09/18/23 08:50	09/18/23 16:27	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			09/18/23 16:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			09/18/23 16:22	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	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 16:22	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 16:22	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 16:22	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	09/18/23 10:12	09/18/23 16:22	1
o-Terphenyl	105		70 - 130	09/18/23 10:12	09/18/23 16:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5890		50.2	mg/Kg			09/18/23 14:46	10

**Client Sample ID: FS13****Lab Sample ID: 890-5274-13**

Matrix: Solid

Date Collected: 09/14/23 13:10  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**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		09/18/23 08:50	09/18/23 16:47	1
Toluene	<0.00202	U	0.00202	mg/Kg		09/18/23 08:50	09/18/23 16:47	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		09/18/23 08:50	09/18/23 16:47	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		09/18/23 08:50	09/18/23 16:47	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		09/18/23 08:50	09/18/23 16:47	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		09/18/23 08:50	09/18/23 16:47	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130	09/18/23 08:50	09/18/23 16:47	1
1,4-Difluorobenzene (Surr)	90		70 - 130	09/18/23 08:50	09/18/23 16:47	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			09/18/23 16:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			09/18/23 16:45	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS13****Lab Sample ID: 890-5274-13**

Matrix: Solid

Date Collected: 09/14/23 13:10  
 Date Received: 09/14/23 16:40

Sample Depth: 4

**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	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 16:45	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 16:45	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 16:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130			09/18/23 10:12	09/18/23 16:45	1
o-Terphenyl	113		70 - 130			09/18/23 10:12	09/18/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3990		25.0	mg/Kg			09/18/23 14:53	5

**Client Sample ID: FS14****Lab Sample ID: 890-5274-14**

Matrix: Solid

Date Collected: 09/14/23 13:20  
 Date Received: 09/14/23 16:40

Sample Depth: 4

**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		09/18/23 08:50	09/18/23 17:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 17:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 17:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 17:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 17:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 17:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130			09/18/23 08:50	09/18/23 17:08	1
1,4-Difluorobenzene (Surr)	86		70 - 130			09/18/23 08:50	09/18/23 17:08	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			09/18/23 17:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			09/18/23 17:08	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	<50.2	U	50.2	mg/Kg		09/18/23 10:12	09/18/23 17:08	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		09/18/23 10:12	09/18/23 17:08	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		09/18/23 10:12	09/18/23 17:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130			09/18/23 10:12	09/18/23 17:08	1
o-Terphenyl	114		70 - 130			09/18/23 10:12	09/18/23 17:08	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS14**

Date Collected: 09/14/23 13:20  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**Lab Sample ID: 890-5274-14**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5400		49.9	mg/Kg			09/18/23 15:13	10

**Client Sample ID: FS15**

Date Collected: 09/14/23 13:30  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**Lab Sample ID: 890-5274-15**

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		09/18/23 08:50	09/18/23 17:28	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 17:28	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 17:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 17:28	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 17:28	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 17:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			09/18/23 08:50	09/18/23 17:28	1
1,4-Difluorobenzene (Surr)	92		70 - 130			09/18/23 08:50	09/18/23 17:28	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			09/18/23 17:28	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			09/18/23 17:29	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		09/18/23 10:12	09/18/23 17:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/18/23 10:12	09/18/23 17:29	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/18/23 10:12	09/18/23 17:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130			09/18/23 10:12	09/18/23 17:29	1
<i>o</i> -Terphenyl	115		70 - 130			09/18/23 10:12	09/18/23 17:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3190		24.9	mg/Kg			09/18/23 15:20	5

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS16**

Date Collected: 09/14/23 13:40

Date Received: 09/14/23 16:40

Sample Depth: 4

**Lab Sample ID: 890-5274-16**

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	09/18/23 08:50	09/18/23 17:49		1
Toluene	<b>0.00424</b>		0.00198	mg/Kg	09/18/23 08:50	09/18/23 17:49		1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg	09/18/23 08:50	09/18/23 17:49		1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg	09/18/23 08:50	09/18/23 17:49		1
o-Xylene	<0.00198	U	0.00198	mg/Kg	09/18/23 08:50	09/18/23 17:49		1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg	09/18/23 08:50	09/18/23 17:49		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		77		70 - 130		09/18/23 08:50	09/18/23 17:49	1
1,4-Difluorobenzene (Surr)		107		70 - 130		09/18/23 08:50	09/18/23 17:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<b>0.00424</b>		0.00396	mg/Kg			09/18/23 17:49	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			09/18/23 17:51	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	09/18/23 10:12	09/18/23 17:51		1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	09/18/23 10:12	09/18/23 17:51		1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	09/18/23 10:12	09/18/23 17:51		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane		123		70 - 130		09/18/23 10:12	09/18/23 17:51	1
o-Terphenyl		109		70 - 130		09/18/23 10:12	09/18/23 17:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<b>6470</b>		50.0	mg/Kg			09/18/23 15:26	10

**Client Sample ID: FS17**

Date Collected: 09/14/23 13:50

Date Received: 09/14/23 16:40

Sample Depth: 4

**Lab Sample ID: 890-5274-17**

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	09/18/23 08:50	09/18/23 18:09		1
Toluene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:50	09/18/23 18:09		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:50	09/18/23 18:09		1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg	09/18/23 08:50	09/18/23 18:09		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:50	09/18/23 18:09		1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg	09/18/23 08:50	09/18/23 18:09		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		95		70 - 130		09/18/23 08:50	09/18/23 18:09	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS17****Lab Sample ID: 890-5274-17**

Matrix: Solid

Date Collected: 09/14/23 13:50  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	86		70 - 130	09/18/23 08:50	09/18/23 18:09	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			09/18/23 18:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			09/18/23 18:13	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	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 18:13	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 18:13	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		09/18/23 10:12	09/18/23 18:13	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130	09/18/23 10:12	09/18/23 18:13	1
o-Terphenyl	118		70 - 130	09/18/23 10:12	09/18/23 18:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3740		25.2	mg/Kg			09/18/23 15:33	5

**Client Sample ID: FS18****Lab Sample ID: 890-5274-18**

Matrix: Solid

Date Collected: 09/14/23 14:00  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**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		09/18/23 08:50	09/18/23 18:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 18:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 18:30	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/18/23 08:50	09/18/23 18:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 18:30	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/18/23 08:50	09/18/23 18:30	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	09/18/23 08:50	09/18/23 18:30	1
1,4-Difluorobenzene (Surr)	92		70 - 130	09/18/23 08:50	09/18/23 18:30	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			09/18/23 18:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			09/18/23 18:34	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS18**

Date Collected: 09/14/23 14:00

Date Received: 09/14/23 16:40

Sample Depth: 4

**Lab Sample ID: 890-5274-18**

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	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 18:34	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 18:34	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		09/18/23 10:12	09/18/23 18:34	1

**Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130	09/18/23 10:12	09/18/23 18:34	1
o-Terphenyl	116		70 - 130	09/18/23 10:12	09/18/23 18:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2820		25.1	mg/Kg		09/18/23 15:40		5

**Client Sample ID: FS19**

Date Collected: 09/14/23 14:10

Date Received: 09/14/23 16:40

Sample Depth: 4

**Lab Sample ID: 890-5274-19**

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		09/18/23 08:50	09/18/23 18:50	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 18:50	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 18:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 18:50	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 18:50	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 18:50	1

**Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	09/18/23 08:50	09/18/23 18:50	1
1,4-Difluorobenzene (Surr)	83		70 - 130	09/18/23 08:50	09/18/23 18:50	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		09/18/23 18:50		1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg		09/18/23 18:56		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	<50.2	U	50.2	mg/Kg		09/18/23 10:12	09/18/23 18:56	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		09/18/23 10:12	09/18/23 18:56	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		09/18/23 10:12	09/18/23 18:56	1

**Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	155	S1+	70 - 130	09/18/23 10:12	09/18/23 18:56	1
o-Terphenyl	139	S1+	70 - 130	09/18/23 10:12	09/18/23 18:56	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS19**

Date Collected: 09/14/23 14:10  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**Lab Sample ID: 890-5274-19**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2410		25.1	mg/Kg			09/18/23 15:46	5

**Client Sample ID: FS20**

Date Collected: 09/14/23 14:20  
 Date Received: 09/14/23 16:40  
 Sample Depth: 4

**Lab Sample ID: 890-5274-20**

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		09/18/23 08:50	09/18/23 19:11	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 19:11	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 19:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 19:11	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:50	09/18/23 19:11	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:50	09/18/23 19:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			09/18/23 08:50	09/18/23 19:11	1
1,4-Difluorobenzene (Surr)	93		70 - 130			09/18/23 08:50	09/18/23 19:11	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			09/18/23 19:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			09/18/23 19:18	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	<50.1	U	50.1	mg/Kg		09/18/23 10:12	09/18/23 19:18	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		09/18/23 10:12	09/18/23 19:18	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		09/18/23 10:12	09/18/23 19:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			09/18/23 10:12	09/18/23 19:18	1
<i>o</i> -Terphenyl	108		70 - 130			09/18/23 10:12	09/18/23 19:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4780		49.7	mg/Kg			09/18/23 15:53	10

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS21**

Date Collected: 09/14/23 12:50

Date Received: 09/14/23 16:40

Sample Depth: 4

**Lab Sample ID: 890-5274-21**

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	09/18/23 08:54	09/18/23 22:16		1
Toluene	<0.00199	U	0.00199	mg/Kg	09/18/23 08:54	09/18/23 22:16		1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg	09/18/23 08:54	09/18/23 22:16		1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg	09/18/23 08:54	09/18/23 22:16		1
o-Xylene	<0.00199	U	0.00199	mg/Kg	09/18/23 08:54	09/18/23 22:16		1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg	09/18/23 08:54	09/18/23 22:16		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		96		70 - 130		09/18/23 08:54	09/18/23 22:16	1
1,4-Difluorobenzene (Surr)		79		70 - 130		09/18/23 08:54	09/18/23 22:16	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			09/18/23 22:16	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			09/18/23 10:54	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 F1	49.9	mg/Kg	09/18/23 10:16	09/18/23 10:54		1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	09/18/23 10:16	09/18/23 10:54		1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	09/18/23 10:16	09/18/23 10:54		1
<b>Surrogate</b>								
1-Chlorooctane								1
o-Terphenyl								1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8460	F1	50.3	mg/Kg			09/18/23 15:52	10

**Client Sample ID: SW01**

Date Collected: 09/14/23 13:00

Date Received: 09/14/23 16:40

Sample Depth: 0-3

**Lab Sample ID: 890-5274-22**

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	09/18/23 08:54	09/18/23 22:36		1
Toluene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:54	09/18/23 22:36		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:54	09/18/23 22:36		1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg	09/18/23 08:54	09/18/23 22:36		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:54	09/18/23 22:36		1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg	09/18/23 08:54	09/18/23 22:36		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		92		70 - 130		09/18/23 08:54	09/18/23 22:36	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: SW01**

Date Collected: 09/14/23 13:00

Date Received: 09/14/23 16:40

Sample Depth: 0-3

**Lab Sample ID: 890-5274-22**

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130	09/18/23 08:54	09/18/23 22:36	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			09/18/23 22:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			09/18/23 12:04	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	<50.3	U	50.3	mg/Kg		09/18/23 10:16	09/18/23 12:04	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		09/18/23 10:16	09/18/23 12:04	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		09/18/23 10:16	09/18/23 12:04	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	09/18/23 10:16	09/18/23 12:04	1
o-Terphenyl	90		70 - 130	09/18/23 10:16	09/18/23 12:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64.6		5.00	mg/Kg			09/18/23 16:12	1

**Client Sample ID: SW02****Lab Sample ID: 890-5274-23**

Matrix: Solid

Date Collected: 09/14/23 13:10

Date Received: 09/14/23 16:40

Sample Depth: 0-4

**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		09/18/23 08:54	09/18/23 22:57	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/18/23 08:54	09/18/23 22:57	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/18/23 08:54	09/18/23 22:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/18/23 08:54	09/18/23 22:57	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/18/23 08:54	09/18/23 22:57	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/18/23 08:54	09/18/23 22:57	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	09/18/23 08:54	09/18/23 22:57	1
1,4-Difluorobenzene (Surr)	65	S1-	70 - 130	09/18/23 08:54	09/18/23 22:57	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			09/18/23 22:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			09/18/23 12:28	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: SW02****Lab Sample ID: 890-5274-23**

Matrix: Solid

Date Collected: 09/14/23 13:10  
 Date Received: 09/14/23 16:40  
 Sample Depth: 0-4

**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	<50.5	U	50.5	mg/Kg		09/18/23 10:16	09/18/23 12:28	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		09/18/23 10:16	09/18/23 12:28	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		09/18/23 10:16	09/18/23 12:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			09/18/23 10:16	09/18/23 12:28	1
o-Terphenyl	96		70 - 130			09/18/23 10:16	09/18/23 12:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	61.0		4.98	mg/Kg			09/18/23 16:37	1

**Client Sample ID: SW03****Lab Sample ID: 890-5274-24**

Matrix: Solid

Date Collected: 09/14/23 13:20  
 Date Received: 09/14/23 16:40  
 Sample Depth: 0-4

**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		09/18/23 08:54	09/18/23 23:17	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:54	09/18/23 23:17	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:54	09/18/23 23:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:54	09/18/23 23:17	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:54	09/18/23 23:17	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:54	09/18/23 23:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			09/18/23 08:54	09/18/23 23:17	1
1,4-Difluorobenzene (Surr)	67	S1-	70 - 130			09/18/23 08:54	09/18/23 23:17	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			09/18/23 23:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			09/18/23 12:50	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	<50.5	U	50.5	mg/Kg		09/18/23 10:16	09/18/23 12:50	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		09/18/23 10:16	09/18/23 12:50	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		09/18/23 10:16	09/18/23 12:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			09/18/23 10:16	09/18/23 12:50	1
o-Terphenyl	86		70 - 130			09/18/23 10:16	09/18/23 12:50	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: SW03**

Date Collected: 09/14/23 13:20  
 Date Received: 09/14/23 16:40  
 Sample Depth: 0-4

**Lab Sample ID: 890-5274-24**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	91.9		5.02	mg/Kg			09/18/23 16:44	1

**Client Sample ID: SW04**

Date Collected: 09/14/23 13:30  
 Date Received: 09/14/23 16:40  
 Sample Depth: 0-4

**Lab Sample ID: 890-5274-25**

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		09/18/23 08:54	09/18/23 23:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:54	09/18/23 23:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:54	09/18/23 23:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/18/23 08:54	09/18/23 23:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/18/23 08:54	09/18/23 23:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/18/23 08:54	09/18/23 23:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			09/18/23 08:54	09/18/23 23:38	1
1,4-Difluorobenzene (Surr)	80		70 - 130			09/18/23 08:54	09/18/23 23:38	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			09/18/23 23:38	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			09/18/23 13:16	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		09/18/23 10:16	09/18/23 13:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/18/23 10:16	09/18/23 13:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/18/23 10:16	09/18/23 13:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			09/18/23 10:16	09/18/23 13:16	1
<i>o</i> -Terphenyl	80		70 - 130			09/18/23 10:16	09/18/23 13:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.5		5.05	mg/Kg			09/18/23 16:50	1

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**Client Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: SW05**

Date Collected: 09/14/23 13:40

Date Received: 09/14/23 16:40

Sample Depth: 0-4

**Lab Sample ID: 890-5274-26**

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	09/18/23 08:54	09/18/23 23:58		1
Toluene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:54	09/18/23 23:58		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:54	09/18/23 23:58		1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg	09/18/23 08:54	09/18/23 23:58		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	09/18/23 08:54	09/18/23 23:58		1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg	09/18/23 08:54	09/18/23 23:58		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		98		70 - 130		09/18/23 08:54	09/18/23 23:58	1
1,4-Difluorobenzene (Surr)		64	S1-	70 - 130		09/18/23 08:54	09/18/23 23:58	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			09/18/23 23:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			09/18/23 13:39	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	<49.6	U	49.6	mg/Kg	09/18/23 10:16	09/18/23 13:39		1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg	09/18/23 10:16	09/18/23 13:39		1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg	09/18/23 10:16	09/18/23 13:39		1
<b>Surrogate</b>								
1-Chlorooctane								1
o-Terphenyl								1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.2		4.98	mg/Kg			09/18/23 17:10	1

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**Surrogate Summary**

Client: Ensolum

Job ID: 890-5274-1

Project/Site: Superman Water Treatment Facility

SDG: 03D2024208

**Method: 8021B - Volatile Organic Compounds (GC)****Matrix: Solid****Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB1 (70-130)	DFBZ1 (70-130)	
890-5274-1	FS01	149 S1+	103	
890-5274-1 MS	FS01	103	115	
890-5274-1 MSD	FS01	107	112	
890-5274-2	FS02	91	88	
890-5274-3	FS03	94	79	
890-5274-4	FS04	75	96	
890-5274-5	FS05	86	91	
890-5274-6	FS06	84	81	
890-5274-7	FS07	90	83	
890-5274-8	FS08	89	86	
890-5274-9	FS09	94	89	
890-5274-10	FS10	70	93	
890-5274-11	FS11	91	119	
890-5274-12	FS12	91	91	
890-5274-13	FS13	73	90	
890-5274-14	FS14	74	86	
890-5274-15	FS15	94	92	
890-5274-16	FS16	77	107	
890-5274-17	FS17	95	86	
890-5274-18	FS18	75	92	
890-5274-19	FS19	93	83	
890-5274-20	FS20	95	93	
890-5274-21	FS21	96	79	
890-5274-21 MS	FS21	102	115	
890-5274-21 MSD	FS21	99	106	
890-5274-22	SW01	92	66 S1-	
890-5274-23	SW02	97	65 S1-	
890-5274-24	SW03	92	67 S1-	
890-5274-25	SW04	95	80	
890-5274-26	SW05	98	64 S1-	
LCS 880-62599/1-A	Lab Control Sample	100	115	
LCS 880-62674/1-A	Lab Control Sample	99	113	
LCSD 880-62599/2-A	Lab Control Sample Dup	100	106	
LCSD 880-62674/2-A	Lab Control Sample Dup	97	116	
MB 880-62599/5-A	Method Blank	71	98	
MB 880-62674/5-A	Method Blank	69 S1-	97	

**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**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		1CO1 (70-130)	OTPH1 (70-130)	
890-5274-1	FS01	129	114	
890-5274-1 MS	FS01	117	95	
890-5274-1 MSD	FS01	119	95	

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**Surrogate Summary**

Client: Ensolum

Job ID: 890-5274-1

Project/Site: Superman Water Treatment Facility

SDG: 03D2024208

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		1CO1 (70-130)	OTPH1 (70-130)	
890-5274-2	FS02	138 S1+	122	
890-5274-3	FS03	123	107	
890-5274-4	FS04	135 S1+	121	
890-5274-5	FS05	125	111	
890-5274-6	FS06	151 S1+	134 S1+	
890-5274-7	FS07	139 S1+	125	
890-5274-8	FS08	136 S1+	121	
890-5274-9	FS09	149 S1+	133 S1+	
890-5274-10	FS10	134 S1+	120	
890-5274-11	FS11	131 S1+	117	
890-5274-12	FS12	117	105	
890-5274-13	FS13	126	113	
890-5274-14	FS14	128	114	
890-5274-15	FS15	128	115	
890-5274-16	FS16	123	109	
890-5274-17	FS17	132 S1+	118	
890-5274-18	FS18	130	116	
890-5274-19	FS19	155 S1+	139 S1+	
890-5274-20	FS20	120	108	
890-5274-21	FS21	79	87	
890-5274-21 MS	FS21	88	81	
890-5274-21 MSD	FS21	87	79	
890-5274-22	SW01	82	90	
890-5274-23	SW02	90	96	
890-5274-24	SW03	81	86	
890-5274-25	SW04	78	80	
890-5274-26	SW05	80	85	
LCS 880-62696/2-A	Lab Control Sample	114	132 S1+	
LCS 880-62707/2-A	Lab Control Sample	85	84	
LCSD 880-62696/3-A	Lab Control Sample Dup	105	102	
LCSD 880-62707/3-A	Lab Control Sample Dup	94	95	
MB 880-62696/1-A	Method Blank	156 S1+	139 S1+	
MB 880-62707/1-A	Method Blank	95	101	

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

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

**Lab Sample ID: MB 880-62599/5-A**

**Matrix: Solid**

**Analysis Batch: 62672**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 62599**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	09/18/23 15:08		09/18/23 21:54		1
Toluene	<0.00200	U	0.00200		mg/Kg	09/18/23 15:08		09/18/23 21:54		1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	09/18/23 15:08		09/18/23 21:54		1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	09/18/23 15:08		09/18/23 21:54		1
o-Xylene	<0.00200	U	0.00200		mg/Kg	09/18/23 15:08		09/18/23 21:54		1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	09/18/23 15:08		09/18/23 21:54		1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Bromofluorobenzene (Surr)	71		70 - 130			09/18/23 15:08	09/18/23 21:54	1
1,4-Difluorobenzene (Surr)	98		70 - 130			09/18/23 15:08	09/18/23 21:54	1

**Lab Sample ID: LCS 880-62599/1-A**

**Matrix: Solid**

**Analysis Batch: 62672**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 62599**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec
	Added	Result	Qualifier							
Benzene	0.100	0.07810		mg/Kg			78		70 - 130	
Toluene	0.100	0.08476		mg/Kg			85		70 - 130	
Ethylbenzene	0.100	0.08259		mg/Kg			83		70 - 130	
m-Xylene & p-Xylene	0.200	0.1713		mg/Kg			86		70 - 130	
o-Xylene	0.100	0.08671		mg/Kg			87		70 - 130	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Bromofluorobenzene (Surr)	100		70 - 130					
1,4-Difluorobenzene (Surr)	115		70 - 130					

**Lab Sample ID: LCSD 880-62599/2-A**

**Matrix: Solid**

**Analysis Batch: 62672**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 62599**

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Benzene	0.100	0.08604		mg/Kg			86		70 - 130	10	35
Toluene	0.100	0.08846		mg/Kg			88		70 - 130	4	35
Ethylbenzene	0.100	0.08613		mg/Kg			86		70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1791		mg/Kg			90		70 - 130	4	35
o-Xylene	0.100	0.09090		mg/Kg			91		70 - 130	5	35

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
4-Bromofluorobenzene (Surr)	100		70 - 130					
1,4-Difluorobenzene (Surr)	106		70 - 130					

**Lab Sample ID: 890-5274-21 MS**

**Matrix: Solid**

**Analysis Batch: 62672**

**Client Sample ID: FS21**

**Prep Type: Total/NA**

**Prep Batch: 62599**

Analyte	Sample	Sample	Spike	MS	MS	Result	Qualifier	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<0.00199	U	0.0998	0.08115		mg/Kg			81		70 - 130
Toluene	<0.00199	U	0.0998	0.08570		mg/Kg			86		70 - 130

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Method: 8021B - Volatile Organic Compounds (GC) (Continued)****Lab Sample ID: 890-5274-21 MS****Matrix: Solid****Analysis Batch: 62672**

**Client Sample ID: FS21**  
**Prep Type: Total/NA**  
**Prep Batch: 62599**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Ethylbenzene	<0.00199	U	0.0998	0.08302		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1706		mg/Kg		85	70 - 130
o-Xylene	<0.00199	U	0.0998	0.08580		mg/Kg		86	70 - 130

**MS**    **MS**  
**Surrogate**    **%Recovery**    **Qualifier**    **Limits**

4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

**Lab Sample ID: 890-5274-21 MSD****Matrix: Solid****Analysis Batch: 62672**

**Client Sample ID: FS21**  
**Prep Type: Total/NA**  
**Prep Batch: 62599**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<0.00199	U	0.0996	0.07875		mg/Kg		79	70 - 130	3	35
Toluene	<0.00199	U	0.0996	0.08119		mg/Kg		82	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0996	0.07757		mg/Kg		78	70 - 130	7	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1592		mg/Kg		80	70 - 130	7	35
o-Xylene	<0.00199	U	0.0996	0.07997		mg/Kg		80	70 - 130	7	35

**MSD**    **MSD**  
**Surrogate**    **%Recovery**    **Qualifier**    **Limits**

4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

**Lab Sample ID: MB 880-62674/5-A****Matrix: Solid****Analysis Batch: 62672**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 62674**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 11:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 11:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 11:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/18/23 08:50	09/18/23 11:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/18/23 08:50	09/18/23 11:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/18/23 08:50	09/18/23 11:16	1

**MB**    **MB**  
**Surrogate**    **%Recovery**    **Qualifier**    **Limits**

4-Bromofluorobenzene (Surr)	69	S1-	70 - 130		Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130		09/18/23 08:50	09/18/23 11:16	1

**Lab Sample ID: LCS 880-62674/1-A****Matrix: Solid****Analysis Batch: 62672**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 62674**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Benzene	0.100	0.08976		mg/Kg		90	70 - 130
Toluene	0.100	0.09180		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.08548		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1765		mg/Kg		88	70 - 130

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**QC Sample Results**

Client: Ensolum

Job ID: 890-5274-1

Project/Site: Superman Water Treatment Facility

SDG: 03D2024208

**Method: 8021B - Volatile Organic Compounds (GC) (Continued)****Lab Sample ID: LCS 880-62674/1-A****Matrix: Solid****Analysis Batch: 62672****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 62674**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	RPD
o-Xylene	0.100	0.08864		mg/Kg		89	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits			Limits	
4-Bromofluorobenzene (Surr)	99		70 - 130				
1,4-Difluorobenzene (Surr)	113		70 - 130				

**Lab Sample ID: LCSD 880-62674/2-A****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 62674****Analysis Batch: 62672**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD
Benzene	0.100	0.08124		mg/Kg		81	70 - 130
Toluene	0.100	0.07963		mg/Kg		80	70 - 130
Ethylbenzene	0.100	0.07467		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	0.200	0.1550		mg/Kg		78	70 - 130
o-Xylene	0.100	0.07796		mg/Kg		78	70 - 130
Surrogate	%Recovery	LCSD Qualifier	Limits			Limits	Limit
4-Bromofluorobenzene (Surr)	97		70 - 130				
1,4-Difluorobenzene (Surr)	116		70 - 130				

**Lab Sample ID: 890-5274-1 MS****Client Sample ID: FS01****Prep Type: Total/NA****Prep Batch: 62674****Analysis Batch: 62672**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec
Benzene	0.00952		0.0998	0.08382		mg/Kg		74
Toluene	0.126	F1	0.0998	0.08394	F1	mg/Kg		-42
Ethylbenzene	0.00966		0.0998	0.08101		mg/Kg		71
m-Xylene & p-Xylene	0.0235		0.200	0.1680		mg/Kg		72
o-Xylene	0.0146	F1	0.0998	0.08358	F1	mg/Kg		69
Surrogate	%Recovery	MS Qualifier	Limits					Limits
4-Bromofluorobenzene (Surr)	103		70 - 130					
1,4-Difluorobenzene (Surr)	115		70 - 130					

**Lab Sample ID: 890-5274-1 MSD****Client Sample ID: FS01****Prep Type: Total/NA****Prep Batch: 62674****Analysis Batch: 62672**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec
Benzene	0.00952		0.100	0.08157		mg/Kg		72
Toluene	0.126	F1	0.100	0.08479	F1	mg/Kg		-41
Ethylbenzene	0.00966		0.100	0.08401		mg/Kg		74
m-Xylene & p-Xylene	0.0235		0.201	0.1734		mg/Kg		75
o-Xylene	0.0146	F1	0.100	0.08618		mg/Kg		71
Surrogate	%Recovery	MSD Qualifier	Limits					RPD

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

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

Lab Sample ID: 890-5274-1 MSD

Matrix: Solid

Analysis Batch: 62672

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 62674

Surrogate	MSD	MSD	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107				70 - 130
1,4-Difluorobenzene (Surr)	112				70 - 130

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

Lab Sample ID: MB 880-62696/1-A

Matrix: Solid

Analysis Batch: 62664

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62696

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U			50.0	mg/Kg		09/18/23 08:00	09/18/23 08:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U			50.0	mg/Kg		09/18/23 08:00	09/18/23 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U			50.0	mg/Kg		09/18/23 08:00	09/18/23 08:29	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+			70 - 130			09/18/23 08:00	09/18/23 08:29	1
o-Terphenyl	139	S1+			70 - 130			09/18/23 08:00	09/18/23 08:29	1

Lab Sample ID: LCS 880-62696/2-A

Matrix: Solid

Analysis Batch: 62664

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62696

Analyte		Spike	LCS	LCS	Unit	D	%Rec	Limits	
Surrogate		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10		1000	1094		mg/Kg		109	70 - 130	
Diesel Range Organics (Over C10-C28)		1000	943.3		mg/Kg		94	70 - 130	
Surrogate		LCS	LCS	Unit	D	%Rec	RPD	Limit	
1-Chlorooctane		114	S1+						
o-Terphenyl		132	S1+						

Lab Sample ID: LCSD 880-62696/3-A

Matrix: Solid

Analysis Batch: 62664

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 62696

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD
Surrogate		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD
Gasoline Range Organics (GRO)-C6-C10		1000	1088		mg/Kg		109	70 - 130	1
Diesel Range Organics (Over C10-C28)		1000	955.0		mg/Kg		95	70 - 130	1
Surrogate		LCSD	LCSD	Unit	D	%Rec	RPD	Limit	
1-Chlorooctane		105	S1+						
o-Terphenyl		102	S1+						

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

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

Lab Sample ID: 890-5274-1 MS

Matrix: Solid

Analysis Batch: 62664

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 62696

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	997	816.0		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	<50.4	U	997	1039		mg/Kg		103	70 - 130
<b>Surrogate</b>									
<b>MS %Recovery</b>									
1-Chlorooctane	117			70 - 130					
o-Terphenyl	95			70 - 130					

Lab Sample ID: 890-5274-1 MSD

Matrix: Solid

Analysis Batch: 62664

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 62696

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	997	846.1		mg/Kg		83	70 - 130	4 20
Diesel Range Organics (Over C10-C28)	<50.4	U	997	1055		mg/Kg		104	70 - 130	2 20
<b>Surrogate</b>										
<b>MSD %Recovery</b>										
1-Chlorooctane	119			70 - 130						
o-Terphenyl	95			70 - 130						

Lab Sample ID: MB 880-62707/1-A

Matrix: Solid

Analysis Batch: 62670

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 62707

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		09/18/23 07:56	09/18/23 08:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/18/23 07:56	09/18/23 08:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/18/23 07:56	09/18/23 08:04	1
<b>Surrogate</b>								
<b>MB %Recovery</b>								
1-Chlorooctane	95		70 - 130			09/18/23 07:56	09/18/23 08:04	1
o-Terphenyl	101		70 - 130			09/18/23 07:56	09/18/23 08:04	1

Lab Sample ID: LCS 880-62707/2-A

Matrix: Solid

Analysis Batch: 62670

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 62707

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	1000	860.5		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	917.5		mg/Kg		92	70 - 130

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

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

**Lab Sample ID: LCS 880-62707/2-A**

**Matrix: Solid**

**Analysis Batch: 62670**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 62707**

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
<i>o</i> -Terphenyl	84		70 - 130

**Lab Sample ID: LCSD 880-62707/3-A**

**Matrix: Solid**

**Analysis Batch: 62670**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 62707**

Analyte	Spike	LCSD	LCSD		%Rec	RPD
	Added	Result	Qualifier	Unit	D	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	868.7		mg/Kg	87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	915.0		mg/Kg	92	70 - 130

Surrogate	LCSD	LCSD	
	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
<i>o</i> -Terphenyl	95		70 - 130

**Lab Sample ID: 890-5274-21 MS**

**Matrix: Solid**

**Analysis Batch: 62670**

**Client Sample ID: FS21**

**Prep Type: Total/NA**

**Prep Batch: 62707**

Analyte	Sample	Sample	Spike	MS			%Rec		
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	992	735.0		mg/Kg	70	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	992	782.9		mg/Kg	79	70 - 130	

Surrogate	MS	MS	
	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
<i>o</i> -Terphenyl	81		70 - 130

**Lab Sample ID: 890-5274-21 MSD**

**Matrix: Solid**

**Analysis Batch: 62670**

**Client Sample ID: FS21**

**Prep Type: Total/NA**

**Prep Batch: 62707**

Analyte	Sample	Sample	Spike	MSD			%Rec		
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	992	722.0	F1	mg/Kg	69	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	992	771.2		mg/Kg	78	70 - 130	

Surrogate	MSD	MSD	
	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
<i>o</i> -Terphenyl	79		70 - 130

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

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

Lab Sample ID: MB 880-62675/1-A

Client Sample ID: Method Blank  
 Prep Type: Soluble

Matrix: Solid

Analysis Batch: 62744

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			09/18/23 13:00	1

Lab Sample ID: LCS 880-62675/2-A

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Matrix: Solid

Analysis Batch: 62744

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier					
Chloride	250	246.4		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-62675/3-A

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

Matrix: Solid

Analysis Batch: 62744

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier					
Chloride	250	245.9		mg/Kg		98	90 - 110	0

Lab Sample ID: 890-5274-1 MS

Client Sample ID: FS01  
 Prep Type: Soluble

Matrix: Solid

Analysis Batch: 62744

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec
	Result	Qualifier	Added	Result	Qualifier			
Chloride	71.2		252	317.3		mg/Kg		98

Lab Sample ID: 890-5274-1 MSD

Client Sample ID: FS01  
 Prep Type: Soluble

Matrix: Solid

Analysis Batch: 62744

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec
	Result	Qualifier	Added	Result	Qualifier			
Chloride	71.2		252	313.6		mg/Kg		96

Lab Sample ID: 890-5274-11 MS

Client Sample ID: FS11  
 Prep Type: Soluble

Matrix: Solid

Analysis Batch: 62744

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec
	Result	Qualifier	Added	Result	Qualifier			
Chloride	6050	F1	2510	9574	F1	mg/Kg		141

Lab Sample ID: 890-5274-11 MSD

Client Sample ID: FS11  
 Prep Type: Soluble

Matrix: Solid

Analysis Batch: 62744

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec
	Result	Qualifier	Added	Result	Qualifier			
Chloride	6050	F1	2510	9609	F1	mg/Kg		142

Lab Sample ID: MB 880-62676/1-A

Client Sample ID: Method Blank  
 Prep Type: Soluble

Matrix: Solid

Analysis Batch: 62764

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			09/18/23 15:32	1

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**QC Sample Results**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Method: 300.0 - Anions, Ion Chromatography****Lab Sample ID: LCS 880-62676/2-A****Matrix: Solid****Analysis Batch: 62764****Client Sample ID: Lab Control Sample****Prep Type: Soluble**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD
Chloride	250	242.6		mg/Kg	97	90 - 110		

**Lab Sample ID: LCSD 880-62676/3-A****Matrix: Solid****Analysis Batch: 62764****Client Sample ID: Lab Control Sample Dup****Prep Type: Soluble**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	242.5		mg/Kg	97	90 - 110		0	20

**Lab Sample ID: 890-5274-21 MS****Matrix: Solid****Analysis Batch: 62764****Client Sample ID: FS21****Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	RPD
Chloride	8460	F1	2520	11310	F1	mg/Kg	113	90 - 110	

**Lab Sample ID: 890-5274-21 MSD****Matrix: Solid****Analysis Batch: 62764****Client Sample ID: FS21****Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD
Chloride	8460	F1	2520	11330	F1	mg/Kg	114	90 - 110	0

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**GC VOA****Prep Batch: 62599**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-21	FS21	Total/NA	Solid	5035	
890-5274-22	SW01	Total/NA	Solid	5035	
890-5274-23	SW02	Total/NA	Solid	5035	
890-5274-24	SW03	Total/NA	Solid	5035	
890-5274-25	SW04	Total/NA	Solid	5035	
890-5274-26	SW05	Total/NA	Solid	5035	
MB 880-62599/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-62599/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-62599/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5274-21 MS	FS21	Total/NA	Solid	5035	
890-5274-21 MSD	FS21	Total/NA	Solid	5035	

**Analysis Batch: 62672**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Total/NA	Solid	8021B	62674
890-5274-2	FS02	Total/NA	Solid	8021B	62674
890-5274-3	FS03	Total/NA	Solid	8021B	62674
890-5274-4	FS04	Total/NA	Solid	8021B	62674
890-5274-5	FS05	Total/NA	Solid	8021B	62674
890-5274-6	FS06	Total/NA	Solid	8021B	62674
890-5274-7	FS07	Total/NA	Solid	8021B	62674
890-5274-8	FS08	Total/NA	Solid	8021B	62674
890-5274-9	FS09	Total/NA	Solid	8021B	62674
890-5274-10	FS10	Total/NA	Solid	8021B	62674
890-5274-11	FS11	Total/NA	Solid	8021B	62674
890-5274-12	FS12	Total/NA	Solid	8021B	62674
890-5274-13	FS13	Total/NA	Solid	8021B	62674
890-5274-14	FS14	Total/NA	Solid	8021B	62674
890-5274-15	FS15	Total/NA	Solid	8021B	62674
890-5274-16	FS16	Total/NA	Solid	8021B	62674
890-5274-17	FS17	Total/NA	Solid	8021B	62674
890-5274-18	FS18	Total/NA	Solid	8021B	62674
890-5274-19	FS19	Total/NA	Solid	8021B	62674
890-5274-20	FS20	Total/NA	Solid	8021B	62674
890-5274-21	FS21	Total/NA	Solid	8021B	62599
890-5274-22	SW01	Total/NA	Solid	8021B	62599
890-5274-23	SW02	Total/NA	Solid	8021B	62599
890-5274-24	SW03	Total/NA	Solid	8021B	62599
890-5274-25	SW04	Total/NA	Solid	8021B	62599
890-5274-26	SW05	Total/NA	Solid	8021B	62599
MB 880-62599/5-A	Method Blank	Total/NA	Solid	8021B	62599
MB 880-62674/5-A	Method Blank	Total/NA	Solid	8021B	62674
LCS 880-62599/1-A	Lab Control Sample	Total/NA	Solid	8021B	62599
LCS 880-62674/1-A	Lab Control Sample	Total/NA	Solid	8021B	62674
LCSD 880-62599/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	62599
LCSD 880-62674/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	62674
890-5274-1 MS	FS01	Total/NA	Solid	8021B	62674
890-5274-1 MSD	FS01	Total/NA	Solid	8021B	62674
890-5274-21 MS	FS21	Total/NA	Solid	8021B	62599
890-5274-21 MSD	FS21	Total/NA	Solid	8021B	62599

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**GC VOA****Prep Batch: 62674**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Total/NA	Solid	5035	1
890-5274-2	FS02	Total/NA	Solid	5035	2
890-5274-3	FS03	Total/NA	Solid	5035	3
890-5274-4	FS04	Total/NA	Solid	5035	4
890-5274-5	FS05	Total/NA	Solid	5035	5
890-5274-6	FS06	Total/NA	Solid	5035	6
890-5274-7	FS07	Total/NA	Solid	5035	7
890-5274-8	FS08	Total/NA	Solid	5035	8
890-5274-9	FS09	Total/NA	Solid	5035	9
890-5274-10	FS10	Total/NA	Solid	5035	10
890-5274-11	FS11	Total/NA	Solid	5035	11
890-5274-12	FS12	Total/NA	Solid	5035	12
890-5274-13	FS13	Total/NA	Solid	5035	13
890-5274-14	FS14	Total/NA	Solid	5035	14
890-5274-15	FS15	Total/NA	Solid	5035	
890-5274-16	FS16	Total/NA	Solid	5035	
890-5274-17	FS17	Total/NA	Solid	5035	
890-5274-18	FS18	Total/NA	Solid	5035	
890-5274-19	FS19	Total/NA	Solid	5035	
890-5274-20	FS20	Total/NA	Solid	5035	
MB 880-62674/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-62674/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-62674/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5274-1 MS	FS01	Total/NA	Solid	5035	
890-5274-1 MSD	FS01	Total/NA	Solid	5035	

**Analysis Batch: 62798**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Total/NA	Solid	Total BTEX	1
890-5274-2	FS02	Total/NA	Solid	Total BTEX	2
890-5274-3	FS03	Total/NA	Solid	Total BTEX	3
890-5274-4	FS04	Total/NA	Solid	Total BTEX	4
890-5274-5	FS05	Total/NA	Solid	Total BTEX	5
890-5274-6	FS06	Total/NA	Solid	Total BTEX	6
890-5274-7	FS07	Total/NA	Solid	Total BTEX	7
890-5274-8	FS08	Total/NA	Solid	Total BTEX	8
890-5274-9	FS09	Total/NA	Solid	Total BTEX	9
890-5274-10	FS10	Total/NA	Solid	Total BTEX	10
890-5274-11	FS11	Total/NA	Solid	Total BTEX	11
890-5274-12	FS12	Total/NA	Solid	Total BTEX	12
890-5274-13	FS13	Total/NA	Solid	Total BTEX	13
890-5274-14	FS14	Total/NA	Solid	Total BTEX	14
890-5274-15	FS15	Total/NA	Solid	Total BTEX	
890-5274-16	FS16	Total/NA	Solid	Total BTEX	
890-5274-17	FS17	Total/NA	Solid	Total BTEX	
890-5274-18	FS18	Total/NA	Solid	Total BTEX	
890-5274-19	FS19	Total/NA	Solid	Total BTEX	
890-5274-20	FS20	Total/NA	Solid	Total BTEX	
890-5274-21	FS21	Total/NA	Solid	Total BTEX	
890-5274-22	SW01	Total/NA	Solid	Total BTEX	
890-5274-23	SW02	Total/NA	Solid	Total BTEX	

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**GC VOA (Continued)****Analysis Batch: 62798 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-24	SW03	Total/NA	Solid	Total BTEX	
890-5274-25	SW04	Total/NA	Solid	Total BTEX	
890-5274-26	SW05	Total/NA	Solid	Total BTEX	

**GC Semi VOA****Analysis Batch: 62664**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Total/NA	Solid	8015B NM	62696
890-5274-2	FS02	Total/NA	Solid	8015B NM	62696
890-5274-3	FS03	Total/NA	Solid	8015B NM	62696
890-5274-4	FS04	Total/NA	Solid	8015B NM	62696
890-5274-5	FS05	Total/NA	Solid	8015B NM	62696
890-5274-6	FS06	Total/NA	Solid	8015B NM	62696
890-5274-7	FS07	Total/NA	Solid	8015B NM	62696
890-5274-8	FS08	Total/NA	Solid	8015B NM	62696
890-5274-9	FS09	Total/NA	Solid	8015B NM	62696
890-5274-10	FS10	Total/NA	Solid	8015B NM	62696
890-5274-11	FS11	Total/NA	Solid	8015B NM	62696
890-5274-12	FS12	Total/NA	Solid	8015B NM	62696
890-5274-13	FS13	Total/NA	Solid	8015B NM	62696
890-5274-14	FS14	Total/NA	Solid	8015B NM	62696
890-5274-15	FS15	Total/NA	Solid	8015B NM	62696
890-5274-16	FS16	Total/NA	Solid	8015B NM	62696
890-5274-17	FS17	Total/NA	Solid	8015B NM	62696
890-5274-18	FS18	Total/NA	Solid	8015B NM	62696
890-5274-19	FS19	Total/NA	Solid	8015B NM	62696
890-5274-20	FS20	Total/NA	Solid	8015B NM	62696
MB 880-62696/1-A	Method Blank	Total/NA	Solid	8015B NM	62696
LCS 880-62696/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	62696
LCSD 880-62696/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	62696
890-5274-1 MS	FS01	Total/NA	Solid	8015B NM	62696
890-5274-1 MSD	FS01	Total/NA	Solid	8015B NM	62696

**Analysis Batch: 62670**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-21	FS21	Total/NA	Solid	8015B NM	62707
890-5274-22	SW01	Total/NA	Solid	8015B NM	62707
890-5274-23	SW02	Total/NA	Solid	8015B NM	62707
890-5274-24	SW03	Total/NA	Solid	8015B NM	62707
890-5274-25	SW04	Total/NA	Solid	8015B NM	62707
890-5274-26	SW05	Total/NA	Solid	8015B NM	62707
MB 880-62707/1-A	Method Blank	Total/NA	Solid	8015B NM	62707
LCS 880-62707/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	62707
LCSD 880-62707/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	62707
890-5274-21 MS	FS21	Total/NA	Solid	8015B NM	62707
890-5274-21 MSD	FS21	Total/NA	Solid	8015B NM	62707

**Prep Batch: 62696**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Total/NA	Solid	8015NM Prep	

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**GC Semi VOA (Continued)****Prep Batch: 62696 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-2	FS02	Total/NA	Solid	8015NM Prep	1
890-5274-3	FS03	Total/NA	Solid	8015NM Prep	2
890-5274-4	FS04	Total/NA	Solid	8015NM Prep	3
890-5274-5	FS05	Total/NA	Solid	8015NM Prep	4
890-5274-6	FS06	Total/NA	Solid	8015NM Prep	5
890-5274-7	FS07	Total/NA	Solid	8015NM Prep	6
890-5274-8	FS08	Total/NA	Solid	8015NM Prep	7
890-5274-9	FS09	Total/NA	Solid	8015NM Prep	8
890-5274-10	FS10	Total/NA	Solid	8015NM Prep	9
890-5274-11	FS11	Total/NA	Solid	8015NM Prep	10
890-5274-12	FS12	Total/NA	Solid	8015NM Prep	11
890-5274-13	FS13	Total/NA	Solid	8015NM Prep	12
890-5274-14	FS14	Total/NA	Solid	8015NM Prep	13
890-5274-15	FS15	Total/NA	Solid	8015NM Prep	14
890-5274-16	FS16	Total/NA	Solid	8015NM Prep	
890-5274-17	FS17	Total/NA	Solid	8015NM Prep	
890-5274-18	FS18	Total/NA	Solid	8015NM Prep	
890-5274-19	FS19	Total/NA	Solid	8015NM Prep	
890-5274-20	FS20	Total/NA	Solid	8015NM Prep	
MB 880-62696/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-62696/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-62696/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5274-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-5274-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

**Prep Batch: 62707**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-21	FS21	Total/NA	Solid	8015NM Prep	1
890-5274-22	SW01	Total/NA	Solid	8015NM Prep	2
890-5274-23	SW02	Total/NA	Solid	8015NM Prep	3
890-5274-24	SW03	Total/NA	Solid	8015NM Prep	4
890-5274-25	SW04	Total/NA	Solid	8015NM Prep	5
890-5274-26	SW05	Total/NA	Solid	8015NM Prep	6
MB 880-62707/1-A	Method Blank	Total/NA	Solid	8015NM Prep	7
LCS 880-62707/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	8
LCSD 880-62707/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	9
890-5274-21 MS	FS21	Total/NA	Solid	8015NM Prep	10
890-5274-21 MSD	FS21	Total/NA	Solid	8015NM Prep	11

**Analysis Batch: 62817**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Total/NA	Solid	8015 NM	1
890-5274-2	FS02	Total/NA	Solid	8015 NM	2
890-5274-3	FS03	Total/NA	Solid	8015 NM	3
890-5274-4	FS04	Total/NA	Solid	8015 NM	4
890-5274-5	FS05	Total/NA	Solid	8015 NM	5
890-5274-6	FS06	Total/NA	Solid	8015 NM	6
890-5274-7	FS07	Total/NA	Solid	8015 NM	7
890-5274-8	FS08	Total/NA	Solid	8015 NM	8
890-5274-9	FS09	Total/NA	Solid	8015 NM	9
890-5274-10	FS10	Total/NA	Solid	8015 NM	10

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**GC Semi VOA (Continued)****Analysis Batch: 62817 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-11	FS11	Total/NA	Solid	8015 NM	
890-5274-12	FS12	Total/NA	Solid	8015 NM	
890-5274-13	FS13	Total/NA	Solid	8015 NM	
890-5274-14	FS14	Total/NA	Solid	8015 NM	
890-5274-15	FS15	Total/NA	Solid	8015 NM	
890-5274-16	FS16	Total/NA	Solid	8015 NM	
890-5274-17	FS17	Total/NA	Solid	8015 NM	
890-5274-18	FS18	Total/NA	Solid	8015 NM	
890-5274-19	FS19	Total/NA	Solid	8015 NM	
890-5274-20	FS20	Total/NA	Solid	8015 NM	
890-5274-21	FS21	Total/NA	Solid	8015 NM	
890-5274-22	SW01	Total/NA	Solid	8015 NM	
890-5274-23	SW02	Total/NA	Solid	8015 NM	
890-5274-24	SW03	Total/NA	Solid	8015 NM	
890-5274-25	SW04	Total/NA	Solid	8015 NM	
890-5274-26	SW05	Total/NA	Solid	8015 NM	

**HPLC/IC****Leach Batch: 62675**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Soluble	Solid	DI Leach	
890-5274-2	FS02	Soluble	Solid	DI Leach	
890-5274-3	FS03	Soluble	Solid	DI Leach	
890-5274-4	FS04	Soluble	Solid	DI Leach	
890-5274-5	FS05	Soluble	Solid	DI Leach	
890-5274-6	FS06	Soluble	Solid	DI Leach	
890-5274-7	FS07	Soluble	Solid	DI Leach	
890-5274-8	FS08	Soluble	Solid	DI Leach	
890-5274-9	FS09	Soluble	Solid	DI Leach	
890-5274-10	FS10	Soluble	Solid	DI Leach	
890-5274-11	FS11	Soluble	Solid	DI Leach	
890-5274-12	FS12	Soluble	Solid	DI Leach	
890-5274-13	FS13	Soluble	Solid	DI Leach	
890-5274-14	FS14	Soluble	Solid	DI Leach	
890-5274-15	FS15	Soluble	Solid	DI Leach	
890-5274-16	FS16	Soluble	Solid	DI Leach	
890-5274-17	FS17	Soluble	Solid	DI Leach	
890-5274-18	FS18	Soluble	Solid	DI Leach	
890-5274-19	FS19	Soluble	Solid	DI Leach	
890-5274-20	FS20	Soluble	Solid	DI Leach	
MB 880-62675/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-62675/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-62675/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5274-1 MS	FS01	Soluble	Solid	DI Leach	
890-5274-1 MSD	FS01	Soluble	Solid	DI Leach	
890-5274-11 MS	FS11	Soluble	Solid	DI Leach	
890-5274-11 MSD	FS11	Soluble	Solid	DI Leach	

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**HPLC/IC****Leach Batch: 62676**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-21	FS21	Soluble	Solid	DI Leach	
890-5274-22	SW01	Soluble	Solid	DI Leach	
890-5274-23	SW02	Soluble	Solid	DI Leach	
890-5274-24	SW03	Soluble	Solid	DI Leach	
890-5274-25	SW04	Soluble	Solid	DI Leach	
890-5274-26	SW05	Soluble	Solid	DI Leach	
MB 880-62676/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-62676/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-62676/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5274-21 MS	FS21	Soluble	Solid	DI Leach	
890-5274-21 MSD	FS21	Soluble	Solid	DI Leach	

**Analysis Batch: 62744**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-1	FS01	Soluble	Solid	300.0	62675
890-5274-2	FS02	Soluble	Solid	300.0	62675
890-5274-3	FS03	Soluble	Solid	300.0	62675
890-5274-4	FS04	Soluble	Solid	300.0	62675
890-5274-5	FS05	Soluble	Solid	300.0	62675
890-5274-6	FS06	Soluble	Solid	300.0	62675
890-5274-7	FS07	Soluble	Solid	300.0	62675
890-5274-8	FS08	Soluble	Solid	300.0	62675
890-5274-9	FS09	Soluble	Solid	300.0	62675
890-5274-10	FS10	Soluble	Solid	300.0	62675
890-5274-11	FS11	Soluble	Solid	300.0	62675
890-5274-12	FS12	Soluble	Solid	300.0	62675
890-5274-13	FS13	Soluble	Solid	300.0	62675
890-5274-14	FS14	Soluble	Solid	300.0	62675
890-5274-15	FS15	Soluble	Solid	300.0	62675
890-5274-16	FS16	Soluble	Solid	300.0	62675
890-5274-17	FS17	Soluble	Solid	300.0	62675
890-5274-18	FS18	Soluble	Solid	300.0	62675
890-5274-19	FS19	Soluble	Solid	300.0	62675
890-5274-20	FS20	Soluble	Solid	300.0	62675
MB 880-62675/1-A	Method Blank	Soluble	Solid	300.0	62675
LCS 880-62675/2-A	Lab Control Sample	Soluble	Solid	300.0	62675
LCSD 880-62675/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	62675
890-5274-1 MS	FS01	Soluble	Solid	300.0	62675
890-5274-1 MSD	FS01	Soluble	Solid	300.0	62675
890-5274-11 MS	FS11	Soluble	Solid	300.0	62675
890-5274-11 MSD	FS11	Soluble	Solid	300.0	62675

**Analysis Batch: 62764**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5274-21	FS21	Soluble	Solid	300.0	62676
890-5274-22	SW01	Soluble	Solid	300.0	62676
890-5274-23	SW02	Soluble	Solid	300.0	62676
890-5274-24	SW03	Soluble	Solid	300.0	62676
890-5274-25	SW04	Soluble	Solid	300.0	62676
890-5274-26	SW05	Soluble	Solid	300.0	62676
MB 880-62676/1-A	Method Blank	Soluble	Solid	300.0	62676

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**HPLC/IC (Continued)****Analysis Batch: 62764 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-62676/2-A	Lab Control Sample	Soluble	Solid	300.0	62676
LCSD 880-62676/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	62676
890-5274-21 MS	FS21	Soluble	Solid	300.0	62676
890-5274-21 MSD	FS21	Soluble	Solid	300.0	62676

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS01**

Date Collected: 09/14/23 10:30

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-1**

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			5.03 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 11:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 11:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 11:14	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 11:14	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62744	09/18/23 12:54	CH	EET MID

**Client Sample ID: FS02**

Date Collected: 09/14/23 10:40

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-2**

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			5.05 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 11:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 11:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 12:20	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62744	09/18/23 13:14	CH	EET MID

**Client Sample ID: FS03**

Date Collected: 09/14/23 10:50

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-3**

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			5.01 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 12:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 12:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 12:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 12:42	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62744	09/18/23 13:20	CH	EET MID

**Client Sample ID: FS04**

Date Collected: 09/14/23 11:00

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-4**

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			5.05 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 12:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 12:39	SM	EET MID

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS04**

Date Collected: 09/14/23 11:00  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-4**  
**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			62817	09/18/23 13:05	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 13:05	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62744	09/18/23 13:27	CH	EET MID

**Client Sample ID: FS05**

Date Collected: 09/14/23 11:10  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-5**  
**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			5.01 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 13:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 13:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 13:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 13:26	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 13:33	CH	EET MID

**Client Sample ID: FS06**

Date Collected: 09/14/23 11:20  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-6**  
**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			4.99 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 13:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 13:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 13:49	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 13:53	CH	EET MID

**Client Sample ID: FS07**

Date Collected: 09/14/23 11:30  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-7**  
**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			4.96 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 13:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 13:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 14:10	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 14:10	SM	EET MID

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS07**

Date Collected: 09/14/23 11:30  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-7**  
**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			5.03 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 14:00	CH	EET MID

**Client Sample ID: FS08**

Date Collected: 09/14/23 12:20  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-8**  
**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			5.02 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 14:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 14:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 14:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 14:32	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62744	09/18/23 14:07	CH	EET MID

**Client Sample ID: FS09**

Date Collected: 09/14/23 12:30  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-9**  
**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			5.05 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 14:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 14:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 14:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 14:54	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62744	09/18/23 14:13	CH	EET MID

**Client Sample ID: FS10**

Date Collected: 09/14/23 12:40  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-10**  
**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			5.03 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 14:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 14:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 15:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 15:16	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 14:20	CH	EET MID

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS11**

Date Collected: 09/14/23 12:50

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-11**

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			4.97 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 16:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 16:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 16:00	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62744	09/18/23 14:27	CH	EET MID

**Client Sample ID: FS12**

Date Collected: 09/14/23 13:00

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-12**

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			4.98 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 16:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 16:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 16:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 16:22	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62744	09/18/23 14:46	CH	EET MID

**Client Sample ID: FS13**

Date Collected: 09/14/23 13:10

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-13**

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			4.96 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 16:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 16:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 16:45	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 16:45	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 14:53	CH	EET MID

**Client Sample ID: FS14**

Date Collected: 09/14/23 13:20

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-14**

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			5.02 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 17:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 17:08	SM	EET MID

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS14**

Date Collected: 09/14/23 13:20

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-14**

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			62817	09/18/23 17:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 17:08	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62744	09/18/23 15:13	CH	EET MID

**Client Sample ID: FS15**

Date Collected: 09/14/23 13:30

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-15**

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			5.03 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 17:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 17:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 17:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 17:29	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 15:20	CH	EET MID

**Client Sample ID: FS16**

Date Collected: 09/14/23 13:40

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-16**

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			5.05 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 17:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 17:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 17:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 17:51	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62744	09/18/23 15:26	CH	EET MID

**Client Sample ID: FS17**

Date Collected: 09/14/23 13:50

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-17**

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			4.99 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 18:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 18:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 18:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 18:13	SM	EET MID

Eurofins Carlsbad

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS17**

Date Collected: 09/14/23 13:50  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-17**

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			4.97 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 15:33	CH	EET MID

**Client Sample ID: FS18**

Date Collected: 09/14/23 14:00  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-18**

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			5.01 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 18:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 18:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 18:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 18:34	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 15:40	CH	EET MID

**Client Sample ID: FS19**

Date Collected: 09/14/23 14:10  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-19**

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			5.02 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 18:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 18:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 18:56	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 18:56	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	62744	09/18/23 15:46	CH	EET MID

**Client Sample ID: FS20**

Date Collected: 09/14/23 14:20  
 Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-20**

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			5.03 g	5 mL	62674	09/18/23 08:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 19:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 19:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 19:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	62696	09/18/23 10:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62664	09/18/23 19:18	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	62675	09/18/23 08:54	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62744	09/18/23 15:53	CH	EET MID

Eurofins Carlsbad

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: FS21**

Date Collected: 09/14/23 12:50

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-21**

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	62599	09/18/23 08:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 22:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 22:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	62707	09/18/23 10:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62670	09/18/23 10:54	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	62676	09/18/23 08:58	AG	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	62764	09/18/23 15:52	CH	EET MID

**Client Sample ID: SW01**

Date Collected: 09/14/23 13:00

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-22**

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	62599	09/18/23 08:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 22:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 22:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 12:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	62707	09/18/23 10:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62670	09/18/23 12:04	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	62676	09/18/23 08:58	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62764	09/18/23 16:12	CH	EET MID

**Client Sample ID: SW02**

Date Collected: 09/14/23 13:10

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-23**

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	62599	09/18/23 08:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 22:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 22:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 12:28	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	62707	09/18/23 10:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62670	09/18/23 12:28	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	62676	09/18/23 08:58	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62764	09/18/23 16:37	CH	EET MID

**Client Sample ID: SW03**

Date Collected: 09/14/23 13:20

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-24**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	62599	09/18/23 08:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 23:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 23:17	SM	EET MID

Eurofins Carlsbad

**Lab Chronicle**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

**Client Sample ID: SW03**

Date Collected: 09/14/23 13:20

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-24**

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			62817	09/18/23 12:50	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	62707	09/18/23 10:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62670	09/18/23 12:50	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	62676	09/18/23 08:58	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62764	09/18/23 16:44	CH	EET MID

**Client Sample ID: SW04**

Date Collected: 09/14/23 13:30

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-25**

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			5.03 g	5 mL	62599	09/18/23 08:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 23:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 23:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 13:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	62707	09/18/23 10:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62670	09/18/23 13:16	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	62676	09/18/23 08:58	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62764	09/18/23 16:50	CH	EET MID

**Client Sample ID: SW05**

Date Collected: 09/14/23 13:40

Date Received: 09/14/23 16:40

**Lab Sample ID: 890-5274-26**

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	62599	09/18/23 08:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	62672	09/18/23 23:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			62798	09/18/23 23:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			62817	09/18/23 13:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	62707	09/18/23 10:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	62670	09/18/23 13:39	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	62676	09/18/23 08:58	AG	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	62764	09/18/23 17:10	CH	EET MID

**Laboratory References:**

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

Eurofins Carlsbad

## Accreditation/Certification Summary

Client: Ensolum

Job ID: 890-5274-1

Project/Site: Superman Water Treatment Facility

SDG: 03D2024208

**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	T104704400-23-26	06-30-24

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

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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

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**Method Summary**

Client: Ensolum  
 Project/Site: Superman Water Treatment Facility

Job ID: 890-5274-1  
 SDG: 03D2024208

<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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

Eurofins Carlsbad

**Sample Summary**

Client: Ensolum

Job ID: 890-5274-1

Project/Site: Superman Water Treatment Facility

SDG: 03D2024208

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-5274-1	FS01	Solid	09/14/23 10:30	09/14/23 16:40	3	1
890-5274-2	FS02	Solid	09/14/23 10:40	09/14/23 16:40	3	2
890-5274-3	FS03	Solid	09/14/23 10:50	09/14/23 16:40	3	3
890-5274-4	FS04	Solid	09/14/23 11:00	09/14/23 16:40	4	4
890-5274-5	FS05	Solid	09/14/23 11:10	09/14/23 16:40	4	5
890-5274-6	FS06	Solid	09/14/23 11:20	09/14/23 16:40	4	6
890-5274-7	FS07	Solid	09/14/23 11:30	09/14/23 16:40	4	7
890-5274-8	FS08	Solid	09/14/23 12:20	09/14/23 16:40	4	8
890-5274-9	FS09	Solid	09/14/23 12:30	09/14/23 16:40	4	9
890-5274-10	FS10	Solid	09/14/23 12:40	09/14/23 16:40	4	10
890-5274-11	FS11	Solid	09/14/23 12:50	09/14/23 16:40	4	11
890-5274-12	FS12	Solid	09/14/23 13:00	09/14/23 16:40	4	12
890-5274-13	FS13	Solid	09/14/23 13:10	09/14/23 16:40	4	13
890-5274-14	FS14	Solid	09/14/23 13:20	09/14/23 16:40	4	14
890-5274-15	FS15	Solid	09/14/23 13:30	09/14/23 16:40	4	
890-5274-16	FS16	Solid	09/14/23 13:40	09/14/23 16:40	4	
890-5274-17	FS17	Solid	09/14/23 13:50	09/14/23 16:40	4	
890-5274-18	FS18	Solid	09/14/23 14:00	09/14/23 16:40	4	
890-5274-19	FS19	Solid	09/14/23 14:10	09/14/23 16:40	4	
890-5274-20	FS20	Solid	09/14/23 14:20	09/14/23 16:40	4	
890-5274-21	FS21	Solid	09/14/23 12:50	09/14/23 16:40	4	
890-5274-22	SW01	Solid	09/14/23 13:00	09/14/23 16:40	0-3	
890-5274-23	SW02	Solid	09/14/23 13:10	09/14/23 16:40	0-4	
890-5274-24	SW03	Solid	09/14/23 13:20	09/14/23 16:40	0-4	
890-5274-25	SW04	Solid	09/14/23 13:30	09/14/23 16:40	0-4	
890-5274-26	SW05	Solid	09/14/23 13:40	09/14/23 16:40	0-4	



Environment Testing  
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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](http://www.xenco.com) Page 1 of 3

Project Manager:	Hadlie Green		Bill to: (if different)	Hadlie Green	
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:	hggreen@ensolum.com	

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

Project Name:		Superman Water Treatment Facility		Turn Around		ANALYSIS REQUEST										Preservative Codes						
Project Number:		03D2024208		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush		Pres. Code	Parameters															
Project Location:		32.0186,-103.7138		Due Date:				24 hr														
Sampler's Name:		Peter Van Patten		TAT starts the day received by the lab, if received by 4:30pm																		
PO #:																						
SAMPLE RECEIPT		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		
Samples Received Intact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID: <i>TWM007</i>																		
Cooler Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>N/A</i>		Correction Factor: <i>-0.2</i>																		
Sample Custody Seals:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>N/A</i>		Temperature Reading: <i>41.4</i>																		
Total Containers:				Corrected Temperature: <i>41.2</i>																		
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth			Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)										
FS01	Soil	9/14/2023	1030	3'	Comp	1	x	x	x													
FS02	Soil	9/14/2023	1040	3'	Comp	1	x	x	x													
FS03	Soil	9/14/2023	1050	3'	Comp	1	x	x	x													
FS04	Soil	9/14/2023	1100	4'	Comp	1	x	x	x													
FS05	Soil	9/14/2023	1110	4'	Comp	1	x	x	x													
FS06	Soil	9/14/2023	1120	4'	Comp	1	x	x	x													
FS07	Soil	9/14/2023	1130	4'	Comp	1	x	x	x													
FS08	Soil	9/14/2023	1220	4'	Comp	1	x	x	x													
FS09	Soil	9/14/2023	1230	4'	Comp	1	x	x	x													
FS10	Soil	9/14/2023	1240	4'	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<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed      TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U      Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$65.00 will be applied to each project and a charge of \$6 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Peter Van Patten</i>	<i>Ashley</i>	9-14-16:48			
3			4		
5			6		



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 2 of 3

Project Manager:	Hadlie Green		Bill to: (if different)	Hadlie Green	
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	

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

Project Name: Superman Water Treatment Facility			Turn Around		Pres. Code	ANALYSIS REQUEST										Preservative Codes				
Project Number: 03D2024208			<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Rush												None: NO	DI Water: H <sub>2</sub> O			
Project Location: 32.0186,-103.7138			Due Date: 24 hr		Parameters											Cool: Cool	MeOH: Me			
Sampler's Name: Peter Van Patten			TAT starts the day received by the lab, if received by 4:30pm													HCL: HC	HNO <sub>3</sub> : HN			
PO #:																H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na			
SAMPLE RECEIPT		Temp Blank:	Yes	No		Wet Ice:	Yes	No											H <sub>3</sub> PO <sub>4</sub> : HP	
Samples Received Intact:		Yes	No	Thermometer ID:												NaHSO <sub>4</sub> : NABIS				
Cooler Custody Seals:		Yes	No	N/A		Correction Factor:												Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>		
Sample Custody Seals:		Yes	No	N/A		Temperature Reading:												Zn Acetate+NaOH: Zn		
Total Containers:				Corrected Temperature:												NaOH+Ascorbic Acid: SAPC				
Sample Identification			Matrix	Date Sampled		Time Sampled	Depth	Grab/ Comp	# of Cont											Sample Comments
FS11	Soil	9/14/2023	1250	4'	Comp	1	x	x	x											
FS12	Soil	9/14/2023	1300	4'	Comp	1	x	x	x											
FS13	Soil	9/14/2023	1310	4'	Comp	1	x	x	x											
FS14	Soil	9/14/2023	1320	4'	Comp	1	x	x	x											
FS15	Soil	9/14/2023	1330	4'	Comp	1	x	x	x											
FS16	Soil	9/14/2023	1340	4'	Comp	1	x	x	x											
FS17	Soil	9/14/2023	1350	4'	Comp	1	x	x	x											
FS18	Soil	9/14/2023	1400	4'	Comp	1	x	x	x											
FS19	Soil	9/14/2023	1410	4'	Comp	1	x	x	x											
FS20	Soil	9/14/2023	1420	4'	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 <sub>2</sub> Na Sr Ti Sn U V Zn	Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471
---	--	--	--------------------------------

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Peter Van Patten</i>	<i>al</i>	9-14 16:40			
3			4		
5			6		



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 3 of 3

Project Manager:	Hadlie Green		Bill to: (if different)	Hadlie Green	
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	

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

Project Name:		Superman Water Treatment Facility		Turn Around		Pres. Code	ANALYSIS REQUEST												Preservative Codes	
Project Number:	03D2024208			<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Rush													None: NO	DI Water: H <sub>2</sub> O	
Project Location:	32.0186,-103.7138		Due Date:	24 hr													Cool: Cool	MeOH: Me		
Sampler's Name:	Peter Van Patten		TAT starts the day received by the lab, if received by 4:30pm														HCl: HC	HNO <sub>3</sub> : HN		
PO #:																	H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na		
SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No											H <sub>3</sub> PO <sub>4</sub> : HP			
Samples Received Intact:	Yes	No		Thermometer ID:													NaHSO <sub>4</sub> : NABIS			
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:													Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>			
Sample Custody Seals:	Yes	No	N/A	Temperature Reading:													Zn Acetate+NaOH: Zn			
Total Containers:				Corrected Temperature:													NaOH+Ascorbic Acid: SAPC			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)								Sample Comments			
FS21	Soil	9/14/2023	1250	4'	Comp	1	x	x	x											
SW01	Soil	9/14/2023	1300	0'-3'	Comp	1	x	x	x											
SW02	Soil	9/14/2023	1310	0'-4'	Comp	1	x	x	x											
SW03	Soil	9/14/2023	1320	0'-4'	Comp	1	x	x	x											
SW04	Soil	9/14/2023	1330	0'-4'	Comp	1	x	x	x											
SW05	Soil	9/14/2023	1340	0'-4'	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<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed      TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U      Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9-19 16:40 <sup>2</sup>			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5274-1

SDG Number: 03D2024208

**Login Number:** 5274**List Source:** Eurofins Carlsbad**List Number:** 1**Creator:** Lopez, Abraham

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: 890-5274-1

SDG Number: 03D2024208

**Login Number:** 5274**List Source:** Eurofins Midland**List Number:** 2**List Creation:** 09/18/23 08:43 AM**Creator:** Rodriguez, Leticia

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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## APPENDIX E

### NMOCD Notifications

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**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Hadlie Green](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Velez, Nelson, EMNRD](#)  
**Subject:** RE: [EXTERNAL] COP - Sampling Notification (Week of 7/24/2023)  
**Date:** Wednesday, July 19, 2023 4:01:22 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---

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

Hi Hadlie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells \* Environmental Specialist-Advanced  
Administrative Permitting Program  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Hadlie Green <hgreen@ensolum.com>  
**Sent:** Wednesday, July 19, 2023 1:43 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Peter Van Patten <pvanpatten@ensolum.com>; Laird, Jacob <Jacob.Laird@conocophillips.com>;  
Esparza, Brittany <brrittany.esparza@conocophillips.com>; Carlile, Justin  
<Justin.Carlile@conocophillips.com>  
**Subject:** [EXTERNAL] COP - Sampling Notification (Week of 7/24/2023)

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 sites the week of July 24, 2023.

- King Tut Federal CTB / NAPP2319132381

- Sampling Date: 7/24/2023 @ 0900 MST
- King Tut Federal CTB / NAPP2318734399
  - Sampling Date: 7/25/2023 @1200 MST
- Superman Water Treatment Facility / NAPP2319140286
  - Sampling Date: 7/26-27/2023 @ 0900 MST

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

[hgreen@ensolum.com](mailto:hgreen@ensolum.com)

**Ensolum, LLC**



**From:** Buchanan, Michael, EMNRD  
**To:** Hadlie Green; Enviro, OCD, EMNRD  
**Cc:** Carlile, Justin; Esparza, Brittany; Peter Van Patten; Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD  
**Subject:** RE: [EXTERNAL] COP - Sampling Notification (Week of 9/11/2023)  
**Date:** Wednesday, September 6, 2023 3:33:42 PM  
**Attachments:** [image005.jpg](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[image009.png](#)

---

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

Hi Hadlie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

**Mike Buchanan** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113  
505.490.0798 | [michael.buchanan@emnrd.nm.gov](mailto:michael.buchanan@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/ocd>



---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Wednesday, September 6, 2023 9:57 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Carlile, Justin <[Justin.Carlile@conocophillips.com](mailto:Justin.Carlile@conocophillips.com)>; Esparza, Brittany <[brittany.esparza@conocophillips.com](mailto:brittany.esparza@conocophillips.com)>; Peter Van Patten <[pvanpatten@ensolum.com](mailto:pvanpatten@ensolum.com)>  
**Subject:** [EXTERNAL] COP - Sampling Notification (Week of 9/11/2023)

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 September 11, 2023.

- Superman Water Treatment Facility / NAPP2319140286
  - Sampling Date: 9/13-14/2023 @ 0900 MST

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

[hgreen@ensolum.com](mailto:hgreen@ensolum.com)

**Ensolum, LLC**





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## 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	NAPP2319140286
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	ConocoPhillips Company	OGRID	217817
Contact Name	Justin Carlile	Contact Telephone	(432) 202-4112
Contact email	Justin.Carlile@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2319140286
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

### Location of Release Source

Latitude 32.0186 Longitude -103.7138

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Superman Water Treatment Facility	Site Type	Water Treatment Facility
Date Release Discovered	June 23, 2023	API# (if applicable)	

Unit Letter	Section	Township	Range	County
B	30	26S	32E	Lea

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

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input checked="" type="checkbox"/> Other (describe) Treated Produced Water	Volume/Weight Released (provide units) <b>9.2 bbls</b>	Volume/Weight Recovered (provide units) <b>0 bbls</b>

#### Cause of Release

The release was caused by a lay-flat line failure.

The release was off the pad. A vacuum truck was dispatched to remove all freestanding fluids.

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.

Incident ID	NAPP2319140286
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

## Initial Response

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name	Brittany N. Esparza	Title:	Environmental Technician
Signature:		Date:	7/10/2023
email:	Brittany.Esparza@ConocoPhillips.com		
	Telephone: (432) 221-0398		

## OCD Only

Received by: Shelly Wells Date: 7/10/2023

Released to Imaging: 1/19/2024 10:51:34 AM

Received by OCD: 7/10/2023 11:13:35 AM Date: 6/23/23 10:45am

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*Page 3 of*

Release Type: Produced With

Provide any known details about the event: Corroded Layflay-Rub Area

## **Spill Calculation - On Pad Surface Pool Spill**

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

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

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

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

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

CONDITIONS

Action 237919

**CONDITIONS**

Operator:  CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 237919
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	None	7/10/2023

Incident ID	NAPP2319140286
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Incident ID	NAPP2319140286
District RP	
Facility ID	
Application ID	

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

Printed Name: Justin Carlile Title: Senior Environmental Engineer

Signature: Justin Carlile Date: 9/20/2023

email: Justin.Carlile@conocophillips.com Telephone: 432-202-4112

**OCD Only**

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

Incident ID	NAPP2319140286
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: Justin Carlile

Title: Senior Environmental Engineer

Signature: Justin Carlile

Date: 9/20/2023

email: Justin.Carlile@conocophillips.com

Telephone: 432-202-4112

### **OCD Only**

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

Date: \_\_\_\_\_

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

Closure Approved by: Nelson Velez

Date: 01/19/2024

Printed Name: Nelson Velez

Title: Environmental Specialist – Adv

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

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

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

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

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

CONDITIONS

Action 267780

**CONDITIONS**

Operator:  CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 267780
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	None	1/19/2024