

November 28, 2022

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

SEMU BMT

Incident Number NAPP2216134591

Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Natural Resources, LLC (Maverick), has prepared this *Closure Request* to document site assessment, excavation, and soil sampling activities performed at the SEMU BMT (Site; Figure 1). The purpose of the investigation and remediation activities were to address impacts to soil following a produced water release on-pad at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2216134591.

BACKGROUND

Site description and a release summary were provided in the *Remediation Work Plan* submitted by Ensolum to the New Mexico Oil Conservation District (NMOCD) on August 25, 2022. The NMOCD approved the *Remediation Work Plan* on August 31, 2022 with the following conditions:

Remediation Plan Approved with Conditions. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) 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 greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. On November 10, 2022, a borehole (L-15414- POD1) was advanced to a depth of 103 feet bgs via air rotary drill rig. The borehole was

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 601 North Marienfeld Street | Midland, TX 79701 | ensolum.com Texas PG Firm No. 50588 | Texas PE Firm No. F-21843



located approximately 0.3 miles northwest of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Appendix A. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 100 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. All wells used for depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing or significant watercourse to the Site is a stream/river, located approximately 12,831 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, and church. 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 greater than 300 feet from a wetland. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On July 25, 2022, Ensolum personnel completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Six preliminary soil samples (SS01 through SS06) were collected within the release extent at a depth of approximately 0.5 feet bgs. The preliminary soil samples were field screened for volatile aromatic hydrocarbons utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

On September 12 and 27, 2022, Ensolum personnel conducted additional delineation sampling at the Site via potholing with a backhoe and a hand auger. Pothole sample PH01 and hand auger samples HA01 through HA08 were field screened in the same manner described above. Delineation soil sample locations are depicted on Figure 3.

All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemcials 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 preliminary soil samples SS03 and SS05 indicated TPH concentrations exceeded the Site Closure Criteria. All other preliminary and delineation soil samples were compliant



with the Site Closure Critieria. Table 1 summarizes analytical resuts. A complete laboratory analytical report from the preliminary sampling is inculded as Appendix B.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

October 3, 2022, Ensolum personnel were onsite to oversee excavation activities in the vicinity of preliminary soil samples SS03 and SS05 based the laboratory analytical results. Impacted soil was excavated from the release extent as indicated by visible staining, field screening activities, and laboratory analytical results. Excavation activities were performed via hydrovac. To direct excavation activities, soil was field screened for volatile aromatic hydrocarbons and chloride. The excavations in these areas were completed to a depth of 1-foot bgs. Photographic documentation is included in Appendix C.

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 and FS02 were collected from the floor of the excavations at a depth of 1-foot bgs. Due to the shallow nature of the excavation, soil from the sidewalls were incorporated into the composite floor samples. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 4.

The excavation measured approximately 370 square feet in areal extent. A total of approximately 14 cubic yards of impacted soil was removed during the excavation activities. The soil was transported and properly disposed of at the R360 Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

Laboratory analytical results for excavation soil samples FS01 and FS02 indicated all COC concentrations were compliant with the Site Closure Criteria.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address impacted soil resulting from a produced water release at the Site. Laboratory analytical results for the excavation floor soil samples FS01 and FS02 indicated all COC concentrations were compliant with the Site Closure Criteria. The release was delineated laterally and vertically by preliminary soil samples, pothole soil samples, and hang auger soil samples. Based on the soil analytical results, no further remediation was required. Maverick will backfill the excavation with material purchased locally and recontour the Site to match preexisting site conditions.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater is greater than 100 feet bgs based on a recent soil boring and no other sensitive receptors were identified near the release extent. Maverick believes these remedial actions are protective of human health, the environment, and groundwater. As such, Maverick respectfully requests closure for Incident Number NAPP2216134591. The Final C141 is included as Appendix D and required NMOCD notifications are included as Appendix E.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely, **Ensolum, LLC**

Kalei Jennings Senior Scientist

Daniel R. Moir. P.G. Senior Managing Geologist

CC: Bryce Wagoner, Maverick Natural Resources

Appendices:

Figure 1 Site Receptor Map Figure 2

Preliminary Soil Sample Locations Figure 3 **Delineation Soil Sample Locations** Figure 4 **Excavation Soil Sample Locations** Table 1 Soil Sample Analytical Results Appendix A Lithologic/ Soil Sampling Logs

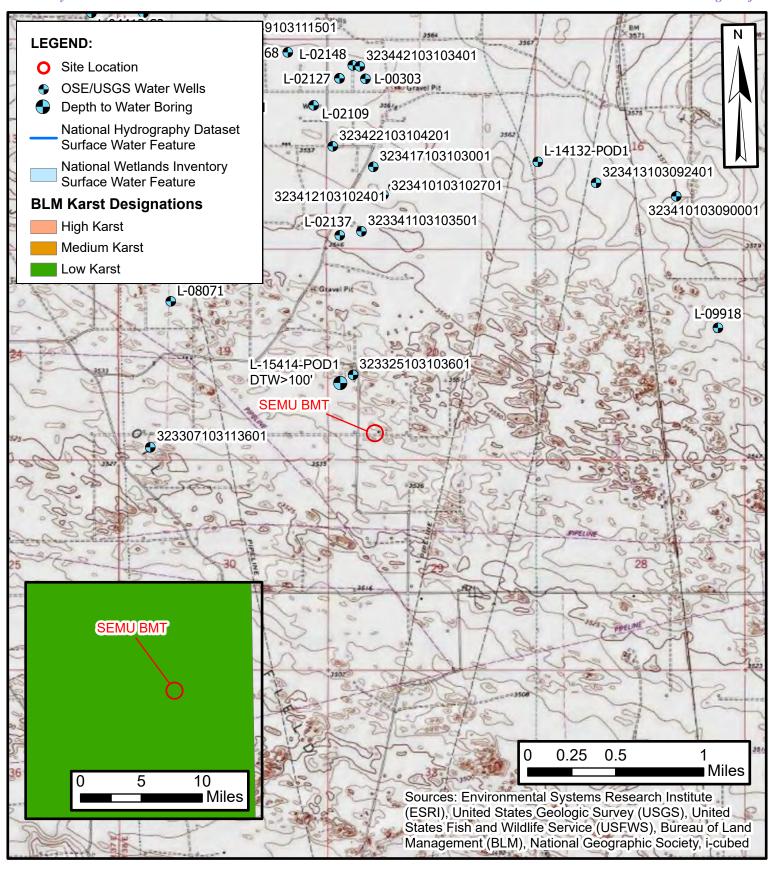
Laboratory Analytical Reports & Chain-of-Custody Documentation Appendix B

Photographic Log Appendix C Appendix D Final C-141

Appendix E **NMOCD Notifications**



FIGURES

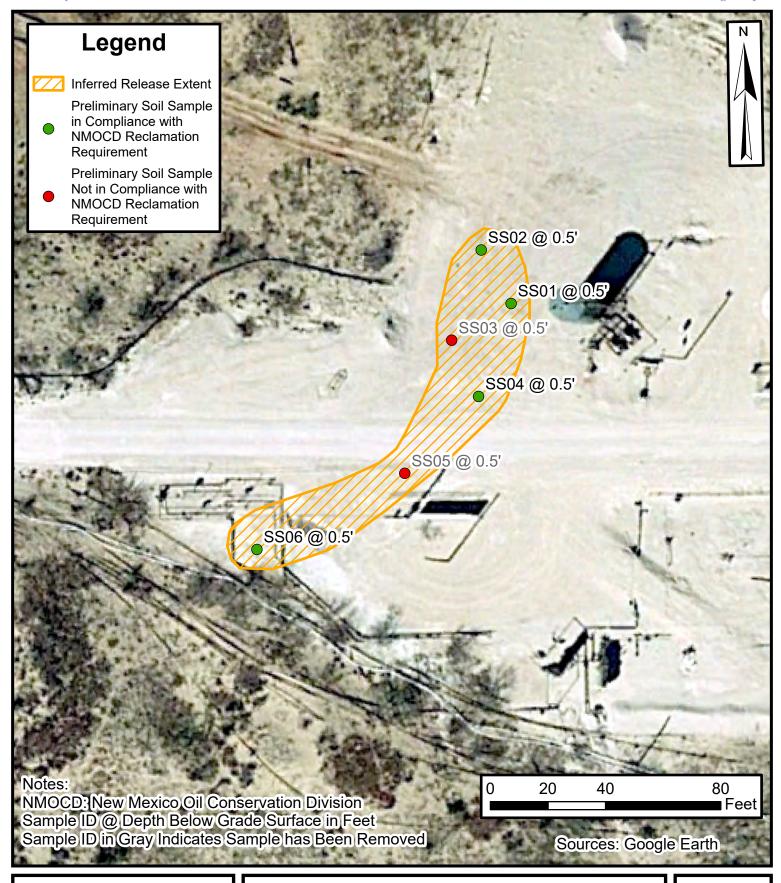




SITE RECEPTOR MAP

MAVERICK NATURAL RESOURCES, LLC SEMU BMT

NAPP2216134591 Unit M, Sec 20, T20S, R38E Lea County, New Mexico FIGURE

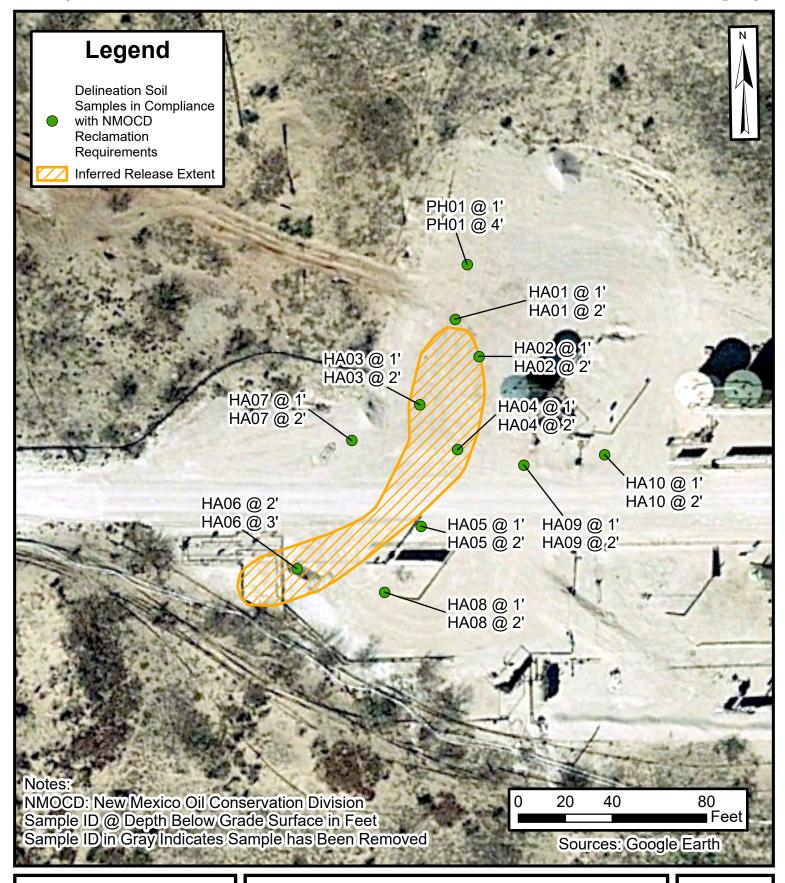




Preliminary Soil Sample Locations

Maverick Natural Resource, LLC SEMU BMT

Incident Number: NAPP2216134591 Unit M, Sec 20, T20S, R38E Lea County, New Mexico FIGURE





Delineation Soil Sample Locations

Maverick Natural Resource, LLC SEMU BMT

Incident Number: NAPP2216134591 Unit M, Sec 20, T20S, R38E Lea County, New Mexico FIGURE





Excavation Soil Sample Locations

Maverick Natural Resource, LLC SEMU BMT

Incident Number: NAPP2216134591 Unit M, Sec 20, T20S, R38E Lea County, New Mexico FIGURE



TABLE



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS SEMU BMT

Maverick Natural Resources, LLC

				Lea Co	ounty, New Mexic	:0				
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 1 Clo	osure Criteria (N	MAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
				Preliminary A	Assessment Soil	Samples				
SS01	07/25/2022	0.5	<0.00202	<0.00403	<50.0	54.3	<50.0	54.3	54.3	837
SS02	07/25/2022	0.5	<0.00200	<0.00399	<50.0	157	60.0	157	217	1,960
SS03	07/25/2022	0.5	<0.00199	<0.00398	<49.9	2,060	583	2,060	2,640	4,170
SS04	07/25/2022	0.5	0.00361	0.825	<49.9	121	148	121	269	630
SS05	07/25/2022	0.5	<0.0199	<0.0398	<250	3,750	1,200	3,750	4,950	3,830
SS06	07/25/2022	0.5	<0.00200	<0.00399	<50.0	154	106	154	260	396
				Deline	ation Soil Sample	es				
PH01	09/12/2022	1	<0.00200	<0.00401	<50.0	225	<50.0	225	225	76.9
PH01	09/12/2022	4	<0.00199	<0.00398	<49.9	60.5	<49.9	60.5	60.5	24.9
HA01	9/27/2022	1	<0.00199	<0.00398	<49.9	227	<49.9	227	227	190
HA01	9/27/2022	2	<0.00199	<0.00398	<50.0	353	74.5	353	428	306
HA02	9/27/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	510
HA02	9/27/2022	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	504
HA03	9/27/2022	1	<0.00200	<0.00399	<50.0	91.2	<50.0	91.2	91.2	245
HA03	9/27/2022	2	<0.00199	<0.00398	<50.0	157	<50.0	157	157	201
HA04	09/27/2022	1	<0.00201	<0.00402	<49.9	351	79.0	351	430	405
HA04	09/27/2022	2	<0.00199	<0.00398	<50.0	236	<50.0	236	236	237
HA05	09/27/2022	1	<0.00202	<0.00403	<49.9	158	<49.9	158	158	183
HA05	09/27/2022	2	<0.00198	<0.00396	<50.0	113	<50.0	113	113	78.1
HA06	09/27/2022	2	<0.00200	<0.00399	<49.9	222	<49.9	222	222	338
HA06	09/27/2022	3	0.00758	0.0344	<49.9	324	<49.9	324	324	223
HA07	09/27/2022	1	<0.00199	<0.00398	<50.0	106	<50.0	106	106	35.8
HA07	09/27/2022	2	<0.00201	<0.00402	<49.9	147	<49.9	147	147	122
HA08	09/27/2022	1	<0.00200	<0.00401	<50.0	69.2	<50.0	69.2	69.2	64.0
HA08	09/27/2022	2	<0.00198	<0.00396	<50.0	142	<50.0	142	142	126



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS

SEMU BMT

Maverick Natural Resources, LLC Lea County, New Mexico

<u> </u>				Lou Ot	ounty, Now Mexic	, 				
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 1 Cl	osure Criteria (N	MAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
HA09	09/27/2022	1	<0.00200	<0.0399	<50.0	81.9	<50.0	81.9	81.9	58
HA09	09/27/2022	2	<0.00199	<0.00398	<49.8	77.6	<49.8	77.6	77.6	200
HA10	09/27/2022	1	<0.00202	<0.00404	<49.9	112	<49.9	112	112	136
HA10	09/27/2022	2	<0.00200	<0.00399	<49.9	54.1	<49.9	54.1	54.1	234
				Excava	tion Floor Sampl	les				
FS01	10/03/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	91.6
FS02	10/03/2022	1	<0.00200	<0.00399	<50.0	153	<50.0	<50.0	153	515

Notes:

bgs: below ground surface mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division 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 1 Closure Criteria or reclamation standard where applicable.

Gray text represent samples that have been excavated



APPENDIX A

Lithologic/Soil Sampling Log



APPENDIX B

Laboratory Analytical Reports



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2645-1

Laboratory Sample Delivery Group: 03D02057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 8/8/2022 4:18:11 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum

Laboratory Job ID: 890-2645-1

Project/Site: SEMU BMT

SDG: 03D02057013

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46

Definitions/Glossary

Job ID: 890-2645-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D02057013

Qualifiers

GC	VOA
Qua	lifier

*+	LCS and/or LCSD is outside acceptance limits, high biased
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.

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

Qualifier Description

Qualifier Description

GC Semi VOA

Qualifier

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

HPLC/IC

Qualifier	Qualifier Description	

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.						
n	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) Limit of Quantitation (DoD/DOE) LOQ

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present PQL **Practical Quantitation Limit**

PRES Presumptive **Quality Control**

Relative Error Ratio (Radiochemistry) RER

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) Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-2645-1 SDG: 03D02057013

Job ID: 890-2645-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2645-1

Receipt

The samples were received on 7/25/2022 3:26 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 28.2°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS04 (890-2645-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-31335 and analytical batch 880-31540 recovered outside control limits for the following analytes: Ethylbenzene, m-Xylene & p-Xylene, o-Xylene and Xylenes, Total.

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike duplicate (MSD); therefore, matrix spike duplicate recoveries are unavailable for preparation batch 880-31335 and analytical batch 880-31540. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31680 and analytical batch 880-31685 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample duplicate (LCSD) recovery was within acceptance limits.

Method 8021B: o-Xylene biased high in LCS. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-31680/1-A)

Method 8021B: The following sample was diluted due to the abundance of non-target analytes: SS05 (890-2645-5). Elevated reporting limits (RLs) are provided.

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 surrogate recovery for the blank associated with preparation batch 880-30964 and analytical batch 880-31081 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-2644-A-1-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

2

4

5

0

10

12

13

Date Received: 07/25/22 15:26

Job ID: 890-2645-1

07/28/22 15:45

Prepared

D

07/30/22 03:21

Analyzed

07/31/22 13:05

Dil Fac

Client: Ensolum SDG: 03D02057013 Project/Site: SEMU BMT

Client Sample ID: SS01 Date Collected: 07/25/22 11:00

Lab Sample ID: 890-2645-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1	0.00202	mg/Kg		08/02/22 14:31	08/05/22 12:08	1
Toluene	<0.00202	U F1	0.00202	mg/Kg		08/02/22 14:31	08/05/22 12:08	1
Ethylbenzene	<0.00202	U *1 F1	0.00202	mg/Kg		08/02/22 14:31	08/05/22 12:08	1
m-Xylene & p-Xylene	<0.00403	U *1 F1	0.00403	mg/Kg		08/02/22 14:31	08/05/22 12:08	1
o-Xylene	0.00264	*1 F1	0.00202	mg/Kg		08/02/22 14:31	08/05/22 12:08	1
Xylenes, Total	<0.00403	U *1 F1	0.00403	mg/Kg		08/02/22 14:31	08/05/22 12:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			08/02/22 14:31	08/05/22 12:08	1
1,4-Difluorobenzene (Surr)	84		70 - 130			08/02/22 14:31	08/05/22 12:08	1
- -								
Method: 8015 NM - Diesel Range	•							
Analyte	Result	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
	•		RL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/30/22 10:17	
Analyte	Result 54.3	Qualifier			<u>D</u>	Prepared		
Analyte Total TPH	Result 54.3 ge Organics (D	Qualifier			D	Prepared Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Rang	Result 54.3 ge Organics (D	Qualifier RO) (GC) Qualifier	50.0	mg/Kg		<u> </u>	07/30/22 10:17	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	Result 54.3 ge Organics (D Result	Qualifier RO) (GC) Qualifier	50.0	mg/Kg		Prepared	07/30/22 10:17 Analyzed 07/30/22 03:21	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 54.3 ge Organics (D Result	Qualifier RO) (GC) Qualifier	50.0	mg/Kg		Prepared	07/30/22 10:17 Analyzed	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 54.3 ge Organics (D Result <50.0 54.3	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/28/22 15:45 07/28/22 15:45	07/30/22 10:17 Analyzed 07/30/22 03:21 07/30/22 03:21	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 54.3 ge Organics (D Result <50.0	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg Unit mg/Kg		Prepared 07/28/22 15:45	07/30/22 10:17 Analyzed 07/30/22 03:21	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 54.3 ge Organics (D Result <50.0 54.3	Qualifier RO) (GC) Qualifier U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/28/22 15:45 07/28/22 15:45	07/30/22 10:17 Analyzed 07/30/22 03:21 07/30/22 03:21	1 Dil Fac

Client Sample ID: SS02 Lab Sample ID: 890-2645-2 Date Collected: 07/25/22 11:05 **Matrix: Solid**

RL

4.97

Unit

mg/Kg

70 - 130

126

837

Result Qualifier

Date Received: 07/25/22 15:26

Method: 300.0 - Anions, Ion Chromatography - Soluble

o-Terphenyl

Analyte

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 13:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 13:09	1
Ethylbenzene	<0.00200	U *1	0.00200	mg/Kg		08/02/22 14:31	08/05/22 13:09	1
m-Xylene & p-Xylene	<0.00399	U *1	0.00399	mg/Kg		08/02/22 14:31	08/05/22 13:09	1
o-Xylene	<0.00200	U *1	0.00200	mg/Kg		08/02/22 14:31	08/05/22 13:09	1
Xylenes, Total	<0.00399	U *1	0.00399	mg/Kg		08/02/22 14:31	08/05/22 13:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			08/02/22 14:31	08/05/22 13:09	1
1,4-Difluorobenzene (Surr)	98		70 - 130			08/02/22 14:31	08/05/22 13:09	1

Client Sample Results

Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

Client Sample ID: SS02 Lab Sample ID: 890-2645-2 Date Collected: 07/25/22 11:05

Matrix: Solid

Date Received: 07/25/22 15:26

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/08/22 14:27	1
Method: 8015 NM - Diesel Ran	ge Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	217		50.0	mg/Kg			07/30/22 10:17	1
Method: 8015B NM - Diesel Ra	nge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/28/22 15:45	07/30/22 03:43	1
Diesel Range Organics (Over	157		50.0	mg/Kg		07/28/22 15:45	07/30/22 03:43	1
C10-C28) Oll Range Organics (Over C28-C36)	60.0		50.0	mg/Kg		07/28/22 15:45	07/30/22 03:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			07/28/22 15:45	07/30/22 03:43	1
o-Terphenyl	117		70 - 130			07/28/22 15:45	07/30/22 03:43	1
Method: 300.0 - Anions, Ion Ch	romatography -	Soluble						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1960		24.8	mg/Kg			07/31/22 13:15	5

Client Sample ID: SS03 Lab Sample ID: 890-2645-3 Date Collected: 07/25/22 11:10 Matrix: Solid

Date Received: 07/25/22 15:26

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:30	1
Toluene	< 0.00199	U	0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:30	1
Ethylbenzene	<0.00199	U *1	0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:30	1
m-Xylene & p-Xylene	<0.00398	U *1	0.00398	mg/Kg		08/02/22 14:31	08/05/22 13:30	1
o-Xylene	<0.00199	U *1	0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:30	1
Xylenes, Total	<0.00398	U *1	0.00398	mg/Kg		08/02/22 14:31	08/05/22 13:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/02/22 14:31	08/05/22 13:30	1
1,4-Difluorobenzene (Surr)	97		70 - 130			08/02/22 14:31	08/05/22 13:30	1
: Method: Total BTEX - Total B1	TEX Calculation							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/08/22 14:27	1
		0) (CC)						
Method: 8015 NM - Diesel Rar	ાge Organics (DR	U) (G C)						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte			RL 49.9	Unitmg/Kg	<u>D</u>	Prepared	Analyzed 07/30/22 10:17	Dil Fac
Analyte Total TPH	Result 2640	Qualifier			<u>D</u>	Prepared		Dil Fac
Method: 8015 NM - Diesel Rar Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte	Result 2640 ange Organics (Di	Qualifier			<u>D</u> 	Prepared Prepared		Dil Fac

Job ID: 890-2645-1 SDG: 03D02057013

Client Sample ID: SS03

Project/Site: SEMU BMT

Client: Ensolum

Lab Sample ID: 890-2645-3

Matrix: Solid

Date Collected: 07/25/22 11:10

Date Received: 07	7/25/22 15:26
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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	2060		49.9	mg/Kg		07/28/22 15:45	07/30/22 04:04	1
C10-C28)								
Oll Range Organics (Over	583		49.9	mg/Kg		07/28/22 15:45	07/30/22 04:04	1
C28-C36)								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			07/28/22 15:45	07/30/22 04:04	1
o-Terphenyl	120		70 - 130			07/28/22 15:45	07/30/22 04:04	1
Method: 300.0 - Anions, Ion Ch	romatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4170		49.8	mg/Kg			07/31/22 13:24	10

Client Sample ID: SS04 Lab Sample ID: 890-2645-4 **Matrix: Solid**

Date Collected: 07/25/22 11:30

Date Received: 07/25/22 15:26

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00361		0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:50	1
Toluene	0.0582		0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:50	1
Ethylbenzene	0.156	*1	0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:50	1
m-Xylene & p-Xylene	0.434	*1	0.00398	mg/Kg		08/02/22 14:31	08/05/22 13:50	1
o-Xylene	0.173	*1	0.00199	mg/Kg		08/02/22 14:31	08/05/22 13:50	1
Xylenes, Total	0.607	*1	0.00398	mg/Kg		08/02/22 14:31	08/05/22 13:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	259	S1+	70 - 130			08/02/22 14:31	08/05/22 13:50	1
1,4-Difluorobenzene (Surr)	92		70 - 130			08/02/22 14:31	08/05/22 13:50	1
Method: Total BTEX - Total BT	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
-							00/00/00 44 07	
Total BTEX	0.825		0.00398	mg/Kg			08/08/22 14:27	1
- -		O) (GC)	0.00398	mg/Kg			08/08/22 14:27	1
Total BTEX : Method: 8015 NM - Diesel Ran Analyte	ge Organics (DR	O) (GC) Qualifier	0.00398 RL	mg/Kg Unit	D	Prepared	08/08/22 14:27 Analyzed	
: Method: 8015 NM - Diesel Ran	ge Organics (DR	, ,			<u>D</u>	Prepared		·
Method: 8015 NM - Diesel Ran Analyte	ge Organics (DR) Result 269	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Rang Analyte Total TPH	ge Organics (DR) Result 269 nge Organics (DI)	Qualifier	RL	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Rang Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics	ge Organics (DR) Result 269 nge Organics (DI)	Qualifier RO) (GC) Qualifier	RL 49.9	Unit mg/Kg		<u> </u>	Analyzed 07/30/22 10:17	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (DR Result 269 nge Organics (DI Result	Qualifier RO) (GC) Qualifier	RL 	Unit mg/Kg		Prepared	Analyzed 07/30/22 10:17 Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (DR/Result 269 nge Organics (DR/Result 49.9	Qualifier RO) (GC) Qualifier	RL 49.9	Unit mg/Kg Unit mg/Kg		Prepared 07/28/22 15:45	Analyzed 07/30/22 10:17 Analyzed 07/30/22 04:25	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over	ge Organics (DR/Result 269 nge Organics (DR/Result < 49.9	Qualifier RO) (GC) Qualifier U	RL 49.9 RL 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/28/22 15:45 07/28/22 15:45	Analyzed 07/30/22 10:17 Analyzed 07/30/22 04:25 07/30/22 04:25	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (DR/Result 269 nge Organics (DR/Result < 49.9 121 148	Qualifier RO) (GC) Qualifier U	RL 49.9 RL 49.9 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/28/22 15:45 07/28/22 15:45 07/28/22 15:45	Analyzed 07/30/22 10:17 Analyzed 07/30/22 04:25 07/30/22 04:25	1 Dil Fac 1 1 1 1 1 Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Client Sample Results

Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

Client Sample ID: SS04 Lab Sample ID: 890-2645-4 Date Collected: 07/25/22 11:30

Matrix: Solid

Date Received: 07/25/22 15:26

Method: 300.0 - Anions, Ion Chrom	atography - Solub	ble					
Analyte	Result Qualit	ifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	630	5.01	mg/Kg			07/31/22 13:33	1

Client Sample ID: SS05 Lab Sample ID: 890-2645-5 Date Collected: 07/25/22 11:35 Matrix: Solid

Date Received: 07/25/22 15:26

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0199	U	0.0199	mg/Kg		08/08/22 08:17	08/08/22 15:30	10
Toluene	<0.0199	U	0.0199	mg/Kg		08/08/22 08:17	08/08/22 15:30	1
Ethylbenzene	<0.0199	U	0.0199	mg/Kg		08/08/22 08:17	08/08/22 15:30	1
m-Xylene & p-Xylene	<0.0398	U	0.0398	mg/Kg		08/08/22 08:17	08/08/22 15:30	1
o-Xylene	<0.0199	U *+	0.0199	mg/Kg		08/08/22 08:17	08/08/22 15:30	1
Xylenes, Total	<0.0398	U	0.0398	mg/Kg		08/08/22 08:17	08/08/22 15:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	86		70 - 130			08/08/22 08:17	08/08/22 15:30	1
1,4-Difluorobenzene (Surr)	112		70 - 130			08/08/22 08:17	08/08/22 15:30	1

Method. Total DTEX - Total DTEX Of	aiculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0398	U	0.0398	mg/Kg			08/08/22 14:27	1

Method: 8015 NM - Diesel Range O	rganics (DRO) (GC)						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4950	250	mg/Kg			07/30/22 10:17	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		07/28/22 15:45	07/30/22 04:46	5
Diesel Range Organics (Over C10-C28)	3750		250	mg/Kg		07/28/22 15:45	07/30/22 04:46	5
Oll Range Organics (Over C28-C36)	1200		250	mg/Kg		07/28/22 15:45	07/30/22 04:46	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	07/28/22 15:45	07/30/22 04:46	5
o-Terphenyl	117		70 - 130	07/28/22 15:45	07/30/22 04:46	5

Method: 300.0 - Anions, Ion Chrom	natography - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3830	25.2	mg/Kg			07/31/22 14:01	5

Lab Sample ID: 890-2645-6 **Client Sample ID: SS06** Date Collected: 07/25/22 11:40 **Matrix: Solid**

Date Received: 07/25/22 15:26

Method: 8021B - Volatile Organi	c Compounds (C	GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 18:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 18:13	1
Ethylbenzene	<0.00200	U *1	0.00200	mg/Kg		08/02/22 14:31	08/05/22 18:13	1

Date Received: 07/25/22 15:26

Client Sample Results

Client: EnsolumJob ID: 890-2645-1Project/Site: SEMU BMTSDG: 03D02057013

Client Sample ID: SS06
Date Collected: 07/25/22 11:40

Result Qualifier

396

Lab Sample ID: 890-2645-6

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
m-Xylene & p-Xylene	<0.00399	U *1	0.00399	mg/Kg		08/02/22 14:31	08/05/22 18:13	
o-Xylene	<0.00200	U *1	0.00200	mg/Kg		08/02/22 14:31	08/05/22 18:13	
Xylenes, Total	<0.00399	U *1	0.00399	mg/Kg		08/02/22 14:31	08/05/22 18:13	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	96		70 - 130			08/02/22 14:31	08/05/22 18:13	
1,4-Difluorobenzene (Surr)	84		70 - 130			08/02/22 14:31	08/05/22 18:13	
Method: Total BTEX - Total BT	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/08/22 14:27	
Method: 8015 NM - Diesel Ran	ge Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	260		50.0	mg/Kg			07/30/22 10:17	
Method: 8015B NM - Diesel Ra	nge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/29/22 08:47	08/01/22 04:35	
Diesel Range Organics (Over	154		50.0	mg/Kg		07/29/22 08:47	08/01/22 04:35	
C10-C28)								
Oll Range Organics (Over C28-C36)	106		50.0	mg/Kg		07/29/22 08:47	08/01/22 04:35	•
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	101		70 - 130			07/29/22 08:47	08/01/22 04:35	-
o-Terphenyl	118		70 - 130			07/29/22 08:47	08/01/22 04:35	

RL

4.97

Unit

mg/Kg

Prepared

Analyzed

07/31/22 14:10

Dil Fac

Released to Imaging: 1/4/2023 11:44:06 AM

Analyte

Chloride

Surrogate Summary

Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED4	DED 74	Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-17530-A-5-E MS	Matrix Spike	125	97	
880-17530-A-5-F MSD	Matrix Spike Duplicate	128	103	
390-2645-1	SS01	109	84	
890-2645-1 MS	SS01	107	99	
890-2645-1 MSD	SS01	102	86	
390-2645-2	SS02	112	98	
390-2645-3	SS03	117	97	
390-2645-4	SS04	259 S1+	92	
890-2645-5	SS05	86	112	
390-2645-6	SS06	96	84	
890-2689-A-2-G MS	Matrix Spike	124	98	
890-2689-A-2-H MSD	Matrix Spike Duplicate	112	93	
_CS 880-31335/1-A	Lab Control Sample	116	100	
LCS 880-31573/1-A	Lab Control Sample	106	90	
LCS 880-31680/1-A	Lab Control Sample	125	92	
LCSD 880-31335/2-A	Lab Control Sample Dup	106	98	
LCSD 880-31573/2-A	Lab Control Sample Dup	112	94	
LCSD 880-31680/2-A	Lab Control Sample Dup	106	95	
MB 880-31335/5-A	Method Blank	99	89	
	Method Blank	101	91	
MB 880-31573/5-A	· ·		90	

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2642-A-41-C MS	Matrix Spike	93	93	
890-2642-A-41-D MSD	Matrix Spike Duplicate	109	109	
890-2644-A-1-D MS	Matrix Spike	105	111	
890-2644-A-1-E MSD	Matrix Spike Duplicate	94	101	
890-2645-1	SS01	104	126	
890-2645-2	SS02	105	117	
890-2645-3	SS03	101	120	
890-2645-4	SS04	105	122	
890-2645-5	SS05	103	117	
890-2645-6	SS06	101	118	
LCS 880-30936/2-A	Lab Control Sample	102	114	
LCS 880-30964/2-A	Lab Control Sample	106	121	
LCSD 880-30936/3-A	Lab Control Sample Dup	104	115	
LCSD 880-30964/3-A	Lab Control Sample Dup	90	102	
MB 880-30936/1-A	Method Blank	106	127	
MB 880-30964/1-A	Method Blank	107	140 S1+	

Surrogate Summary

Client: Ensolum Project/Site: SEMU BMT OTPH = o-Terphenyl

Job ID: 890-2645-1 SDG: 03D02057013

Client: Ensolum Job ID: 890-2645-1 SDG: 03D02057013 Project/Site: SEMU BMT

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31335/5-A

Matrix: Solid Analysis Batch: 31540 **Client Sample ID: Method Blank**

Prep Type: Total/NA

Prep Batch: 31335

MB	MB	
Result	Qualifier	RI

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		08/02/22 14:31	08/05/22 11:25	1

MB MB

Surrogate	%Recovery Q	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99	70 - 130	08/02/22 14:31	08/05/22 11:25	1
1,4-Difluorobenzene (Surr)	89	70 - 130	08/02/22 14:31	08/05/22 11:25	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31335

Prep Type: Total/NA

70 - 130

Prep Batch: 31335

35

Lab Sample ID: LCS 880-31335/1-A Matrix: Solid

Analysis Batch: 31540

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1114	-	mg/Kg		111	70 - 130	
Toluene	0.100	0.1046		mg/Kg		105	70 - 130	
Ethylbenzene	0.100	0.1239		mg/Kg		124	70 - 130	
m-Xylene & p-Xylene	0.200	0.2398		mg/Kg		120	70 - 130	
o-Xylene	0.100	0.1296		mg/Kg		130	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-31335/2-A **Client Sample ID: Lab Control Sample Dup**

Matrix: Solid

Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene

o-Xylene

Analysis Batch: 31540

Spike	LCSD	LCSD				%Rec		RPD	
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
 0.100	0.08982		mg/Kg		90	70 - 130	21	35	
0.100	0.08489		mg/Kg		85	70 - 130	21	35	
0.100	0.08074	*1	mg/Kg		81	70 - 130	42	35	
0.200	0.1641	*1	mg/Kg		82	70 - 130	38	35	

mg/Kg

0.09044 *1

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1.4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-2645-1 MS

Analysis Batch: 31540

Client Sample ID: SS01 **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 31335

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1	0.101	0.1014		mg/Kg		101	70 - 130	
Toluene	<0.00202	U F1	0.101	0.09230		mg/Kg		91	70 - 130	

0.100

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Client: Ensolum Job ID: 890-2645-1 SDG: 03D02057013 Project/Site: SEMU BMT

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

Lab Sample ID: 890-2645-1 MS **Matrix: Solid**

Analysis Batch: 31540

Client Sample ID: SS01 Prep Type: Total/NA Prep Batch: 31335

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00202	U *1 F1	0.101	0.08894		mg/Kg		88	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *1 F1	0.201	0.1784		mg/Kg		87	70 - 130	
o-Xylene	0.00264	*1 F1	0.101	0.09574		mg/Kg		93	70 - 130	

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 107 1,4-Difluorobenzene (Surr) 70 - 130 99

Lab Sample ID: 890-2645-1 MSD

Client Sample ID: SS01 Matrix: Solid Prep Type: Total/NA Analysis Batch: 31540 Prep Batch: 31335

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U F1	0.0998	<0.00200	U F1	mg/Kg			70 - 130	NC	35
Toluene	<0.00202	U F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00202	U *1 F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00403	U *1 F1	0.200	<0.00399	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	0.00264	*1 F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: MB 880-31573/5-A

Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 31540** Prep Batch: 31573 MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:19	08/06/22 00:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:19	08/06/22 00:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:19	08/06/22 00:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/05/22 11:19	08/06/22 00:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/05/22 11:19	08/06/22 00:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/05/22 11:19	08/06/22 00:00	1

	IVID	INID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	08/05/22 11:19	08/06/22 00:00	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/05/22 11:19	08/06/22 00:00	1

MR MR

Lab Sample ID: LCS 880-31573/1-A

Matrix: Solid

Analysis Batch: 31540

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 31573

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.09897		mg/Kg		99	70 - 130
Toluene	0.100	0.1022		mg/Kg		102	70 - 130
Ethylbenzene	0.100	0.1050		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2137		mg/Kg		107	70 - 130

Job ID: 890-2645-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D02057013

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

Lab Sample ID: LCS 880-31573/1-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 31540 Prep Batch: 31573 Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits D

0.100 0.1208 121 70 - 130 o-Xylene mg/Kg

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 106 70 - 130 70 - 130 1,4-Difluorobenzene (Surr) 90

Lab Sample ID: LCSD 880-31573/2-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 31540** Prep Batch: 31573

Spike LCSD LCSD RPD Limit Analyte Added Result Qualifier Unit %Rec Limits **RPD** D Benzene 0.100 0.09262 mg/Kg 93 70 - 130 35 Toluene 0.100 0.09534 mg/Kg 95 70 - 130 35 Ethylbenzene 0.100 0.1047 mg/Kg 105 70 - 130 0 35 m-Xylene & p-Xylene 0.200 0.2146 mg/Kg 107 70 - 130 0 35 0.100 0.1189 119 70 - 130 35 o-Xylene mg/Kg 2

LCSD LCSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 112 70 - 130 1,4-Difluorobenzene (Surr) 94 70 - 130

Lab Sample ID: 890-2689-A-2-G MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid Analysis Batch: 31540

MS MS Sample Sample Spike %Rec Result Qualifier Added Result Qualifier Analyte Unit %Rec Limits Benzene <0.00200 U 0.101 0.09178 mg/Kg 91 70 - 130 Toluene <0.00200 U 0.101 0.1004 mg/Kg 100 70 - 130 Ethylbenzene <0.00200 U 0.101 0.1071 mg/Kg 107 70 - 130 m-Xylene & p-Xylene < 0.00399 U 0.201 0.2218 mg/Kg 110 70 - 130 o-Xylene <0.00200 U 0.101 0.1258 mg/Kg 125 70 - 130

MS MS %Recovery Surrogate Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 124 70 - 130 1,4-Difluorobenzene (Surr) 98

Lab Sample ID: 890-2689-A-2-H MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 31540 Prep Batch: 31573

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0998	0.08524		mg/Kg		85	70 - 130	7	35
Toluene	<0.00200	U	0.0998	0.08780		mg/Kg		88	70 - 130	13	35
Ethylbenzene	<0.00200	U	0.0998	0.08996		mg/Kg		90	70 - 130	17	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1787		mg/Kg		90	70 - 130	22	35
o-Xylene	<0.00200	U	0.0998	0.1036		mg/Kg		104	70 - 130	19	35

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Prep Batch: 31573

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Client: Ensolum Job ID: 890-2645-1
Project/Site: SEMU BMT SDG: 03D02057013

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

Lab Sample ID: 890-2689-A-2-H MSD

Matrix: Solid

Analysis Batch: 31540

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 31573

MSD MSD Surrogate %Recovery Qualifier

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 112
 70 - 130

 1,4-Difluorobenzene (Surr)
 93
 70 - 130

Lab Sample ID: MB 880-31680/5-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 31685

Prep Type: Total/NA

Prep Batch: 31680

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <0.00200 U 0.00200 08/08/22 08:17 08/08/22 12:03 Benzene mg/Kg Toluene <0.00200 U 0.00200 mg/Kg 08/08/22 08:17 08/08/22 12:03 Ethylbenzene <0.00200 U 0.00200 08/08/22 08:17 08/08/22 12:03 mg/Kg m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 08/08/22 08:17 08/08/22 12:03 o-Xylene <0.00200 U 0.00200 mg/Kg 08/08/22 08:17 08/08/22 12:03 Xylenes, Total <0.00400 U 0.00400 mg/Kg 08/08/22 08:17 08/08/22 12:03

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	08/08/22 08:17	08/08/22 12:03	1
1,4-Difluorobenzene (Surr)	90		70 - 130	08/08/22 08:17	08/08/22 12:03	1

Lab Sample ID: LCS 880-31680/1-A Client

Matrix: Solid

Analysis Batch: 31685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31680

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09608		mg/Kg		96	70 - 130	
Toluene	0.100	0.1059		mg/Kg		106	70 - 130	
Ethylbenzene	0.100	0.1185		mg/Kg		118	70 - 130	
m-Xylene & p-Xylene	0.200	0.2507		mg/Kg		125	70 - 130	
o-Xylene	0.100	0.1380	*+	mg/Kg		138	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	125	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

Lab Sample ID: LCSD 880-31680/2-A

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Matrix: Solid

Analysis Batch: 31685

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31680

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1071		mg/Kg		107	70 - 130	11	35
Toluene	0.100	0.1066		mg/Kg		107	70 - 130	1	35
Ethylbenzene	0.100	0.1143		mg/Kg		114	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2280		mg/Kg		114	70 - 130	10	35
o-Xylene	0.100	0.1244		mg/Kg		124	70 - 130	10	35

LCSD LCSD

Surrogate%RecoveryQualifierLimits4-Bromofluorobenzene (Surr)10670 - 130

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Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

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

Lab Sample ID: LCSD 880-31680/2-A

Matrix: Solid

Analysis Batch: 31685

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31680

LCSD LCSD

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

Lab Sample ID: 880-17530-A-5-E MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 31685

Prep Batch: 31680 MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene <0.00199 U 0.101 0.1066 mg/Kg 105 70 - 130 Toluene <0.00199 U 0.101 0.1147 114 70 - 130 mg/Kg Ethylbenzene <0.00199 U 0.101 0.1313 mg/Kg 130 70 - 130 <0.00398 UF1 0.202 70 - 130 m-Xylene & p-Xylene 0.2708 F1 mg/Kg 134 o-Xylene <0.00199 U F1 *+ 0.101 0.1474 F1 mg/Kg 146 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	125	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 880-17530-A-5-F MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 31685

Prep Type: Total/NA

Prep Batch: 31680

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.100	0.1056		mg/Kg		105	70 - 130	1	35
Toluene	< 0.00199	U	0.100	0.1115		mg/Kg		111	70 - 130	3	35
Ethylbenzene	< 0.00199	U	0.100	0.1213		mg/Kg		121	70 - 130	8	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.2484		mg/Kg		124	70 - 130	9	35
o-Xylene	<0.00199	U F1 *+	0.100	0.1355	F1	mg/Kg		135	70 - 130	8	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

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

Lab Sample ID: MB 880-30936/1-A

Matrix: Solid

Analysis Batch: 30956

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 30936

ı		IVID	11.10						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics	<50.0	U	50.0	mg/Kg		07/28/22 15:45	07/29/22 19:56	1
	(GRO)-C6-C10								
	Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		07/28/22 15:45	07/29/22 19:56	1
	C10-C28)								
	OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/28/22 15:45	07/29/22 19:56	1
ı									

мв мв

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	07/28/22 15:45	07/29/22 19:56	1
o-Terphenyl	127		70 - 130	07/28/22 15:45	07/29/22 19:56	1

Lab Sample ID: LCS 880-30936/2-A

Lab Sample ID: LCSD 880-30936/3-A

Matrix: Solid

Matrix: Solid

o-Terphenyl

Analysis Batch: 30956

Analysis Batch: 30956

QC Sample Results

Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

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

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30936

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	936.6		mg/Kg		94	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1038		mg/Kg		104	70 - 130	
C10-C28)								

LCS LCS

%Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 102 o-Terphenyl 114 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30936

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1051		mg/Kg		105	70 - 130	12	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1076		mg/Kg		108	70 - 130	4	20
C10-C28)									

LCSD LCSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 104 70 - 130

115

Lab Sample ID: 890-2642-A-41-C MS Client Sample ID: Matrix Spike

70 - 130

Matrix: Solid Prep Type: Total/NA Analysis Batch: 30956 Prep Batch: 30936

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U F1 F2	999	1138		mg/Kg		109	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	999	815.6		mg/Kg		82	70 - 130	
C10-C28)										

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

Lab Sample ID: 890-2642-A-41-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 30956** Prep Batch: 30936

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	1401	F1 F2	mg/Kg		136	70 - 130	21	20	
Diesel Range Organics (Over C10-C28)	<49.9	U	999	963.2		mg/Kg		96	70 - 130	17	20	

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

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Job ID: 890-2645-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D02057013

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

Lab Sample ID: 890-2642-A-41-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 30956 Prep Batch: 30936

MSD MSD

Surrogate %Recovery Qualifier Limits o-Terphenyl 109 70 - 130

Lab Sample ID: MB 880-30964/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Total/NA

Analysis Batch: 31081 Prep Batch: 30964

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 07/29/22 08:47 07/31/22 20:04 (GRO)-C6-C10 50.0 07/31/22 20:04 Diesel Range Organics (Over <50.0 U mg/Kg 07/29/22 08:47 C10-C28) <50.0 U Oll Range Organics (Over C28-C36) 50.0 mg/Kg 07/29/22 08:47 07/31/22 20:04

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	07/29/22 08:47	07/31/22 20:04	1
o-Terphenyl	140	S1+	70 - 130	07/29/22 08:47	07/31/22 20:04	1

Lab Sample ID: LCS 880-30964/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA **Analysis Batch: 31081** Prep Batch: 30964 Spike LCS LCS

Analyte Added Result Qualifier Unit %Rec Limits D Gasoline Range Organics 1000 1145 mg/Kg 115 70 - 130 (GRO)-C6-C10

Diesel Range Organics (Over 1000 1033 mg/Kg 103 70 - 130

C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	106	70 - 130
o-Terphenyl	121	70 - 130

Lab Sample ID: LCSD 880-30964/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA Analysis Batch: 31081 Prep Batch: 30964

LCSD LCSD RPD Spike %Rec

	-								
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1027		mg/Kg		103	70 - 130	11	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	946.0		mg/Kg		95	70 - 130	9	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 _ 130
o-Terphenyl	102		70 - 130

Job ID: 890-2645-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D02057013

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

Lab Sample ID: 890-2644-A-1-D MS Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 31081 Prep Batch: 30964 Sample Sample Spike MS MS

Result Qualifier Analyte Added Result Qualifier %Rec Limits Unit Gasoline Range Organics <49.9 U 999 1187 mg/Kg 119 70 - 130 (GRO)-C6-C10 999 1105 70 - 130Diesel Range Organics (Over <49.9 U mg/Kg 111 C10-C28)

MS MS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 105 o-Terphenyl 111 70 - 130

Lab Sample ID: 890-2644-A-1-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 31081

Prep Type: Total/NA

Prep Batch: 30964

Prep Type: Soluble

Spike MSD MSD %Rec RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit 999 Gasoline Range Organics <49.9 1112 mg/Kg 111 70 - 130 6 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 999 1023 mg/Kg 102 70 - 130 8 20 C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 94 70 - 130 101 70 - 130 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-30809/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 30989

MB MB

Result Qualifier Analyte RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 07/31/22 10:56 mg/Kg

Lab Sample ID: LCS 880-30809/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 30989

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 262.1 105 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-30809/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 30989

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier %Rec Limits RPD Limit Unit D Chloride 250 105 262.0 mg/Kg 90 _ 110 20

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Prep Type: Soluble

Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

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Client Sample ID: SS04

Prep Type: Soluble

Method: 300.0 - Anions, Ion Chromatography (Continued)

3180

Lab Sample ID: 880-17394-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 30989

Sample Sample Spike MS MS %Rec Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Chloride 3180 1250 4513 mg/Kg 107 90 - 110

Lab Sample ID: 880-17394-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 30989

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

1250

Lab Sample ID: 890-2645-4 MS Client Sample ID: SS04 **Prep Type: Soluble**

4512

mg/Kg

107

Matrix: Solid

Chloride

Analysis Batch: 30989

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 630 251 854.7 90 - 110 mg/Kg

Lab Sample ID: 890-2645-4 MSD

Matrix: Solid

Analysis Batch: 30989

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Qualifier Unit %Rec RPD Limit Result Limits Chloride 630 251 854.3 90 - 110 0 20 mg/Kg

QC Association Summary

 Client: Ensolum
 Job ID: 890-2645-1

 Project/Site: SEMU BMT
 SDG: 03D02057013

GC VOA

Prep Batch: 31335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Total/NA	Solid	5035	
890-2645-2	SS02	Total/NA	Solid	5035	
890-2645-3	SS03	Total/NA	Solid	5035	
890-2645-4	SS04	Total/NA	Solid	5035	
890-2645-6	SS06	Total/NA	Solid	5035	
MB 880-31335/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31335/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31335/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2645-1 MS	SS01	Total/NA	Solid	5035	
890-2645-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 31540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Total/NA	Solid	8021B	31335
890-2645-2	SS02	Total/NA	Solid	8021B	31335
890-2645-3	SS03	Total/NA	Solid	8021B	31335
890-2645-4	SS04	Total/NA	Solid	8021B	31335
890-2645-6	SS06	Total/NA	Solid	8021B	31335
MB 880-31335/5-A	Method Blank	Total/NA	Solid	8021B	31335
MB 880-31573/5-A	Method Blank	Total/NA	Solid	8021B	31573
LCS 880-31335/1-A	Lab Control Sample	Total/NA	Solid	8021B	31335
LCS 880-31573/1-A	Lab Control Sample	Total/NA	Solid	8021B	31573
LCSD 880-31335/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31335
LCSD 880-31573/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31573
890-2645-1 MS	SS01	Total/NA	Solid	8021B	31335
890-2645-1 MSD	SS01	Total/NA	Solid	8021B	31335
890-2689-A-2-G MS	Matrix Spike	Total/NA	Solid	8021B	31573
890-2689-A-2-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31573

Prep Batch: 31573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
MB 880-31573/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31573/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31573/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2689-A-2-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2689-A-2-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 31680

Lab Sample ID 890-2645-5	Client Sample ID SS05	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
MB 880-31680/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31680/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31680/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17530-A-5-E MS	Matrix Spike	Total/NA	Solid	5035	
880-17530-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 31685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-5 MB 880-31680/5-A	SS05 Method Blank	Total/NA Total/NA	Solid Solid	8021B 8021B	31680 31680
LCS 880-31680/1-A	Lab Control Sample	Total/NA	Solid	8021B	31680

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2645-1

 Project/Site: SEMU BMT
 SDG: 03D02057013

GC VOA (Continued)

Analysis Batch: 31685 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-31680/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31680
880-17530-A-5-E MS	Matrix Spike	Total/NA	Solid	8021B	31680
880-17530-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31680

Analysis Batch: 31771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Total/NA	Solid	Total BTEX	
890-2645-2	SS02	Total/NA	Solid	Total BTEX	
890-2645-3	SS03	Total/NA	Solid	Total BTEX	
890-2645-4	SS04	Total/NA	Solid	Total BTEX	
890-2645-5	SS05	Total/NA	Solid	Total BTEX	
890-2645-6	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 30936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Total/NA	Solid	8015NM Prep	
890-2645-2	SS02	Total/NA	Solid	8015NM Prep	
890-2645-3	SS03	Total/NA	Solid	8015NM Prep	
890-2645-4	SS04	Total/NA	Solid	8015NM Prep	
890-2645-5	SS05	Total/NA	Solid	8015NM Prep	
MB 880-30936/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-30936/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-30936/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2642-A-41-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2642-A-41-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 30956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Total/NA	Solid	8015B NM	30936
890-2645-2	SS02	Total/NA	Solid	8015B NM	30936
890-2645-3	SS03	Total/NA	Solid	8015B NM	30936
890-2645-4	SS04	Total/NA	Solid	8015B NM	30936
890-2645-5	SS05	Total/NA	Solid	8015B NM	30936
MB 880-30936/1-A	Method Blank	Total/NA	Solid	8015B NM	30936
LCS 880-30936/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	30936
LCSD 880-30936/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	30936
890-2642-A-41-C MS	Matrix Spike	Total/NA	Solid	8015B NM	30936
890-2642-A-41-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	30936

Prep Batch: 30964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-6	SS06	Total/NA	Solid	8015NM Prep	
MB 880-30964/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-30964/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-30964/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2644-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2644-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

GC Semi VOA

Analysis Batch: 31065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Total/NA	Solid	8015 NM	
890-2645-2	SS02	Total/NA	Solid	8015 NM	
890-2645-3	SS03	Total/NA	Solid	8015 NM	
890-2645-4	SS04	Total/NA	Solid	8015 NM	
890-2645-5	SS05	Total/NA	Solid	8015 NM	
890-2645-6	SS06	Total/NA	Solid	8015 NM	

Analysis Batch: 31081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-6	SS06	Total/NA	Solid	8015B NM	30964
MB 880-30964/1-A	Method Blank	Total/NA	Solid	8015B NM	30964
LCS 880-30964/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	30964
LCSD 880-30964/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	30964
890-2644-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	30964
890-2644-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	30964

HPLC/IC

Leach Batch: 30809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Soluble	Solid	DI Leach	
890-2645-2	SS02	Soluble	Solid	DI Leach	
890-2645-3	SS03	Soluble	Solid	DI Leach	
890-2645-4	SS04	Soluble	Solid	DI Leach	
890-2645-5	SS05	Soluble	Solid	DI Leach	
890-2645-6	SS06	Soluble	Solid	DI Leach	
MB 880-30809/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-30809/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-30809/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17394-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17394-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2645-4 MS	SS04	Soluble	Solid	DI Leach	
890-2645-4 MSD	SS04	Soluble	Solid	DI Leach	

Analysis Batch: 30989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2645-1	SS01	Soluble	Solid	300.0	30809
890-2645-2	SS02	Soluble	Solid	300.0	30809
890-2645-3	SS03	Soluble	Solid	300.0	30809
890-2645-4	SS04	Soluble	Solid	300.0	30809
890-2645-5	SS05	Soluble	Solid	300.0	30809
890-2645-6	SS06	Soluble	Solid	300.0	30809
MB 880-30809/1-A	Method Blank	Soluble	Solid	300.0	30809
LCS 880-30809/2-A	Lab Control Sample	Soluble	Solid	300.0	30809
LCSD 880-30809/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	30809
880-17394-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	30809
880-17394-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	30809
890-2645-4 MS	SS04	Soluble	Solid	300.0	30809
890-2645-4 MSD	SS04	Soluble	Solid	300.0	30809

Date Received: 07/25/22 15:26

Job ID: 890-2645-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D02057013

Client Sample ID: SS01 Lab Sample ID: 890-2645-1 Date Collected: 07/25/22 11:00

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 31335 Total/NA Prep 4.96 g 5 mL 08/02/22 14:31 MR EETSC MID 8021B Total/NA Analysis 1 5 mL 5 mL 31540 08/05/22 12:08 MR EETSC MID Total/NA Analysis Total BTEX 31771 08/08/22 14:27 SM EETSC MIE Total/NA 8015 NM EETSC MIE Analysis 1 31065 07/30/22 10:17 AJ Total/NA 8015NM Prep 30936 07/28/22 15:45 EETSC MIE Prep 10.00 g 10 mL DM Total/NA Analysis 8015B NM 30956 07/30/22 03:21 AJ EETSC MID Soluble DI Leach 5.03 g 50 mL 30809 07/27/22 12:54 SMC EETSC MIL Leach

Client Sample ID: SS02 Lab Sample ID: 890-2645-2

Date Collected: 07/25/22 11:05 **Matrix: Solid**

30989

07/31/22 13:05

SMC

Date Received: 07/25/22 15:26

Analysis

300.0

Soluble

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31335	08/02/22 14:31	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31540	08/05/22 13:09	MR	EETSC MIL
Total/NA	Analysis	Total BTEX		1			31771	08/08/22 14:27	SM	EETSC MIE
Total/NA	Analysis	8015 NM		1			31065	07/30/22 10:17	AJ	EETSC MIE
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	30936	07/28/22 15:45	DM	EETSC MIL
Total/NA	Analysis	8015B NM		1			30956	07/30/22 03:43	AJ	EETSC MIL
Soluble	Leach	DI Leach			5.04 g	50 mL	30809	07/27/22 12:54	SMC	EETSC MI
Soluble	Analysis	300.0		5			30989	07/31/22 13:15	SMC	EETSC MID

Lab Sample ID: 890-2645-3 **Client Sample ID: SS03** Date Collected: 07/25/22 11:10

Date Received: 07/25/22 15:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	31335	08/02/22 14:31	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31540	08/05/22 13:30	MR	EETSC MII
Total/NA	Analysis	Total BTEX		1			31771	08/08/22 14:27	SM	EETSC MIE
Total/NA	Analysis	8015 NM		1			31065	07/30/22 10:17	AJ	EETSC MIE
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	30936	07/28/22 15:45	DM	EETSC MII
Total/NA	Analysis	8015B NM		1			30956	07/30/22 04:04	AJ	EETSC MIC
Soluble	Leach	DI Leach			5.02 g	50 mL	30809	07/27/22 12:54	SMC	EETSC MII
Soluble	Analysis	300.0		10			30989	07/31/22 13:24	SMC	EETSC MID

Client Sample ID: SS04 Lab Sample ID: 890-2645-4 Date Collected: 07/25/22 11:30

Date Received: 07/25/22 15:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	31335	08/02/22 14:31	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31540	08/05/22 13:50	MR	EETSC MII
Total/NA	Analysis	Total BTEX		1			31771	08/08/22 14:27	SM	EETSC MIE

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Released to Imaging: 1/4/2023 11:44:06 AM

EETSC MIE

Matrix: Solid

Matrix: Solid

Job ID: 890-2645-1

SDG: 03D02057013

Client Sample ID: SS04

Project/Site: SEMU BMT

Client: Ensolum

Soluble

Lab Sample ID: 890-2645-4

07/31/22 13:33 SMC

Matrix: Solid

EETSC MID

Matrix: Solid

Date Collected: 07/25/22 11:30

Date Received: 07/25/22 15:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			31065	07/30/22 10:17	AJ	EETSC MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	30936	07/28/22 15:45	DM	EETSC MIC
Total/NA	Analysis	8015B NM		1			30956	07/30/22 04:25	AJ	EETSC MIC
Soluble	Leach	DI Leach			4.99 g	50 mL	30809	07/27/22 12:54	SMC	EETSC MII

Client Sample ID: SS05 Lab Sample ID: 890-2645-5

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Date Collected: 07/25/22 11:35 **Matrix: Solid**

30989

Date Received: 07/25/22 15:26

300.0

Analysis

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	31680	08/08/22 08:17	EL	EETSC MID
Total/NA	Analysis	8021B		10	5 mL	5 mL	31685	08/08/22 15:30	MR	EETSC MIC
Total/NA	Analysis	Total BTEX		1			31771	08/08/22 14:27	SM	EETSC MIE
Total/NA	Analysis	8015 NM		1			31065	07/30/22 10:17	AJ	EETSC MIE
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	30936	07/28/22 15:45	DM	EETSC MIC
Total/NA	Analysis	8015B NM		5			30956	07/30/22 04:46	AJ	EETSC MIC
Soluble	Leach	DI Leach			4.96 g	50 mL	30809	07/27/22 12:54	SMC	EETSC MIE
Soluble	Analysis	300.0		5			30989	07/31/22 14:01	SMC	EETSC MIL

Client Sample ID: SS06 Lab Sample ID: 890-2645-6

Date Collected: 07/25/22 11:40 Date Received: 07/25/22 15:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31335	08/02/22 14:31	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31540	08/05/22 18:13	MR	EETSC MIC
Total/NA	Analysis	Total BTEX		1			31771	08/08/22 14:27	SM	EETSC MIC
Total/NA	Analysis	8015 NM		1			31065	07/30/22 10:17	AJ	EETSC MIC
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	30964	07/29/22 08:47	DM	EETSC MIC
Total/NA	Analysis	8015B NM		1			31081	08/01/22 04:35	SM	EETSC MIC
Soluble	Leach	DI Leach			5.03 g	50 mL	30809	07/27/22 12:54	SMC	EETSC MIC
Soluble	Analysis	300.0		1			30989	07/31/22 14:10	SMC	EETSC MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-2645-1 Project/Site: SEMU BMT SDG: 03D02057013

Laboratory: Eurofins Midland

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

Authority	P	rogram	Identification Number	Expiration Date
Texas	N	ELAP	T104704400-22-24	06-30-23
The following analytes the agency does not of	• •	ut the laboratory is not certific	ed by the governing authority. This list ma	ay include analytes for
0 ,	or corumounorr.			
Analysis Method	Prep Method	Matrix	Analyte	
Analysis Method 8015 NM		Matrix Solid	Analyte Total TPH	

Method Summary

 Client: Ensolum
 Job ID: 890-2645-1

 Project/Site: SEMU BMT
 SDG: 03D02057013

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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:

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

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Sample Summary

 Client: Ensolum
 Job ID: 890-2645-1

 Project/Site: SEMU BMT
 SDG: 03D02057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2645-1	SS01	Solid	07/25/22 11:00	07/25/22 15:26
890-2645-2	SS02	Solid	07/25/22 11:05	07/25/22 15:26
890-2645-3	SS03	Solid	07/25/22 11:10	07/25/22 15:26
890-2645-4	SS04	Solid	07/25/22 11:30	07/25/22 15:26
890-2645-5	SS05	Solid	07/25/22 11:35	07/25/22 15:26
890-2645-6	SS06	Solid	07/25/22 11:40	07/25/22 15:26

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Project Manager:

Company Name:

Ensolum Kalei Jennings

Chain of Custody

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 Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300

Work Order No:

www.xenco.com	Page /	OI /
Work Order Comments	omments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	fields RRC [☐ Superfund ☐
State of Project:		
Reporting: Level II Level III PST/JST TRRP	/UST TRRP	☐ Level IV☐
Deliverables: EDD ☐ ADaPT ☐	□ Other:	
QUEST	Preserva	Preservative Codes
	None: NO	DI Water: H ₂ O
	Cool: Cool	MeOH: Me
	HCL: HC	HNO3: HN
	H ₂ S0 ₄ : H ₂	NaOH: Na

Barred Date 08/05/2020 Rev 2020 2		6								
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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Date		Received by (Signature)	Received by		mature)	gaished by: (Signature)
	igns standard terms and conditions to circumstances beyond the control enforced unless previously negotiated.	mature 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 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 contro 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 negotia	ny to Eurofins Xen ses or expenses ir litted to Eurofins X	nt compai r any losi ple subm	order from clies responsibility fo \$5 for each sam	es a valid purchasi all not assume any ct and a charge of	samples constitut f samples and shi plied to each proje	uishment of s for the cost o 00 will be app	ent and relinquoe liable only fabre of \$85.	nature of this docum Eurofins Xenco will i Xenco. A minimum
1/7470 / 74/1	ig TI U Hg: 1631 / 245.1 / 7470 / 747	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	As Ba Be C	Sb	010: 8RCR/	CLP / SPLP 6	d T	e analyze	etal(s) to be	lethod(s) and Metal(s) to be analyzed
TI Sn U V Zn	Mn Mo Ni K Se Ag SiO2 Na Sr TI Sn U V Zn	B Cd Ca Cr Co Cu Fe Pb Mg Mn	Ba Be	Al Sb As	Texas 11 A	8RCRA 13PPM	8RCF	020:	200.8 / 6020:	200.7 / 6010
				-	-	L	_			
			×	×		11:40	7/25/2022	S 7		SS06
	AFE		×	×		11:35	7/25/2022	S 7		SS05
			×	×		11:30	7/25/2022	S 7		SS04
Cost Center:	Cost		×	×		11:10	7/25/2022	S 7		SS03
NAPP2216134591	NAP		×	×		11:05	7/25/2022	S 7		SS02
Incident ID:	Incid		×	×		11:00	7/25/2022	S 7		SS01
Sample Comments			TPH (8	라 역 CHLOF	Grab/ # of Comp Cont	Time Depth	Date Sampled Sa	Matrix	tion	Sample Identification
NaOH+ASCORDIC ACId. SAFC	NaOr	690-2645 Chain of Custody		RIDE	5.0	erature: 08.	Corrected Temperature:	C		intainers:
Zn Acetate+NaOH: Zn	Zn Ad			S (E	+		N/A Temperature Reading:	1/	Yes No	Custody Seals:
Na ₂ S ₂ O ₃ : NaSO ₃	Zaa November				() Pa		Correction Factor:	N/A	Yes No	Sustody Seals:
NahsO4: NABIO	Zafi				S rar	C-WW	Thermometer ID:	JNO T	res	s Received Intact:
O . MADIO				_	8	Wet Ice: Yes	Yes No W		Temp Blank:	רב אבכבולי

SAMPLE RECEIPT

Temp Blank: res

Wet Ice:

Yes)

Z

Parameters

HCL: HC H₂SO₄: H₂ H3PO4: HP

Sampler's Name:

oject Location:

32.5529, -103.1754

Due Date: ☑ Routine

TAT starts the day received by the lab, if received by 4:30pm

Kase Parker

03D02057013

SEMU BMT

Turn Around

Rush

Code

ANALYSIS RE

Project Number:

roject Name:

Samples Received Intact:

Cooler Custody Seals:

ample Custody Seals:

Sample Identification

Phone:

817-683-2503 Carlsbad, NM 88220 3122 National Parks Hwy

Email: kjennings@ensolum.com

City, State ZIP:

Company Name: Bill to: (if different)

Ensolum Kalei Jennings

City, State ZIP:

ddress:

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-2645-1

 SDG Number: 03D02057013

List Source: Eurofins Carlsbad

Login Number: 2645 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.	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	N/A	

,

<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2645-1 SDG Number: 03D02057013

Login Number: 2645 **List Source: Eurofins Midland** List Number: 2

List Creation: 07/27/22 10:48 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	N/A	

Released to Imaging: 1/4/2023 11:44:06 AM

<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2936-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 9/26/2022 11:53:29 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-2936-1
SDG: 03D2057013

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Definitions/Glossary

Client: Ensolum Job ID: 890-2936-1
Project/Site: SEMU BMT SDG: 03D2057013

2057013

Qualifiers

GC VOA

 Qualifier
 Qualifier Description

 S1+
 Surrogate recovery exceeds control limits, high biased.

 U
 Indicates the analyte was analyzed for but not detected.

GC Semi VOA

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

 NEG
 Negative / Absent

 POS
 Positive / Present

 PQL
 Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Carlsbad

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4 A

Case Narrative

 Client: Ensolum
 Job ID: 890-2936-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Job ID: 890-2936-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2936-1

Receipt

The samples were received on 9/13/2022 8:26 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 1.6°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-2998-A-1-D MSD). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-2998-A-1-E). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-35157/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: PH01 (890-2936-2). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

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

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Matrix: Solid

Lab Sample ID: 890-2936-1

Client Sample Results

Client: Ensolum Job ID: 890-2936-1
Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: PH01

Date Collected: 09/12/22 10:45
Date Received: 09/13/22 08:26

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 21:32	
Toluene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 21:32	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 21:32	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		09/22/22 10:27	09/22/22 21:32	
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 21:32	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		09/22/22 10:27	09/22/22 21:32	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130			09/22/22 10:27	09/22/22 21:32	-
1,4-Difluorobenzene (Surr)	111		70 - 130			09/22/22 10:27	09/22/22 21:32	
Method: Total BTEX - Total BTE	K Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00401	U	0.00401	mg/Kg			09/25/22 11:05	
Total TPH	225		50.0	mg/Kg			09/19/22 11:13	
			00.0	mg/rtg			00/10/22 11:10	
Method: 8015B NM - Diesel Rang	•		-		_			D.: -
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/15/22 14:25	09/16/22 16:44	
Diesel Range Organics (Over	225		50.0	mg/Kg		09/15/22 14:25	09/16/22 16:44	
C10-C28)	220		00.0	9/119		307.10722.1.1.20	00/10/22 10.11	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/15/22 14:25	09/16/22 16:44	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
	105		70 - 130			09/15/22 14:25	09/16/22 16:44	
1-Chlorooctane	100							
	107		70 - 130			09/15/22 14:25	09/16/22 16:44	
1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Chro	107	Soluble	70 - 130			09/15/22 14:25	09/16/22 16:44	
o-Terphenyl	107 omatography -	Soluble Qualifier	70 ₋ 130	Unit	<u>D</u>	09/15/22 14:25 Prepared	09/16/22 16:44 Analyzed	Dil Fa

Client Sample ID: PH01 Lab Sample ID: 890-2936-2

Date Collected: 09/12/22 12:25 Date Received: 09/13/22 08:26

Sample Depth: 4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/22/22 10:27	09/22/22 21:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/22/22 10:27	09/22/22 21:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/22/22 10:27	09/22/22 21:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/22/22 10:27	09/22/22 21:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/22/22 10:27	09/22/22 21:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/22/22 10:27	09/22/22 21:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		S1+	70 - 130			09/22/22 10:27	09/22/22 21:53	

Eurofins Carlsbad

Matrix: Solid

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Client Sample Results

Client: Ensolum Job ID: 890-2936-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: PH01 Lab Sample ID: 890-2936-2 Date Collected: 09/12/22 12:25

Result Qualifier

24.9

Matrix: Solid

Sample Depth: 4

Analyte

Chloride

Date Received: 09/13/22 08:26

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	111		70 - 130			09/22/22 10:27	09/22/22 21:53	1
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/25/22 11:05	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fatal TDU	60.5	-	49.9	mg/Kg			09/19/22 11:13	1
		RO) (GC)	.0.0	mg/ng				
Total TPH Method: 8015B NM - Diesel Rand		RO) (GC)	.0.0	mg/ng				
Method: 8015B NM - Diesel Rang Analyte	ge Organics (DI	Qualifier	RL	Unit	<u>D</u>	Prepared 09/15/22 14:25	Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics GRO)-C6-C10	ge Organics (DI Result <49.9	Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	09/15/22 14:25	Analyzed 09/16/22 17:05	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (DI	Qualifier	RL	Unit	<u>D</u>		Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (DI Result <49.9	Qualifier U	RL 49.9	Unit mg/Kg	<u>D</u>	09/15/22 14:25	Analyzed 09/16/22 17:05	Dil Fac 1 1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (DI Result <49.9	Qualifier U	RL 49.9	Unit mg/Kg mg/Kg	<u>D</u>	09/15/22 14:25 09/15/22 14:25	Analyzed 09/16/22 17:05	Dil Fac 1 1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (DI Result <49.9 60.5 <49.9	Qualifier U	RL 49.9 49.9 49.9	Unit mg/Kg mg/Kg	<u>D</u>	09/15/22 14:25 09/15/22 14:25 09/15/22 14:25	Analyzed 09/16/22 17:05 09/16/22 17:05 09/16/22 17:05	1 1

5.04

Unit

mg/Kg

Prepared

Dil Fac

Analyzed

09/19/22 09:16

Surrogate Summary

Client: Ensolum Job ID: 890-2936-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

BFB1	
	DFBZ1
Lab Sample ID Client Sample ID (70-130)	(70-130)
890-2936-1 PH01 152 S1+	111
890-2936-2 PH01 151 S1+	111
890-2998-A-1-C MS Matrix Spike 126	122
890-2998-A-1-D MSD Matrix Spike Duplicate 138 S1+	121
LCS 880-35157/1-A Lab Control Sample 136 S1+	117
LCSD 880-35157/2-A Lab Control Sample Dup 127	114
MB 880-35157/5-A Method Blank 110	108

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

_			
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2936-1	PH01	105	107
890-2936-2	PH01	123	114
890-2942-A-1-C MS	Matrix Spike	101	96
890-2942-A-1-D MSD	Matrix Spike Duplicate	105	85
LCS 880-34596/2-A	Lab Control Sample	109	93
LCSD 880-34596/3-A	Lab Control Sample Dup	102	96
MB 880-34596/1-A	Method Blank	115	110

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2936-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-35157/5-A

Lab Sample ID: LCS 880-35157/1-A

Matrix: Solid Analysis Batch: 35151 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35157

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 15:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 15:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 15:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/22/22 10:27	09/22/22 15:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/22/22 10:27	09/22/22 15:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/22/22 10:27	09/22/22 15:59	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	 09/22/22 10:27	09/22/22 15:59	1
1,4-Difluorobenzene (Surr)	108		70 - 130	09/22/22 10:27	09/22/22 15:59	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35157

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1010 mg/Kg 101 70 - 130 Toluene 0.100 0.09728 mg/Kg 97 70 - 130 0.100 Ethylbenzene 0.1069 mg/Kg 107 70 - 130 0.200 122 70 - 130 m-Xylene & p-Xylene 0.2437 mg/Kg 0.100 0.1191 70 - 130 o-Xylene mg/Kg 119

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	117		70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Matrix: Solid

Analysis Batch: 35151

Analysis Batch: 35151

Lab Sample ID: LCSD 880-35157/2-A

Prep Type: Total/NA Prep Batch: 35157

	Spike	LUSD	LCSD				70KeC		KPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09002		mg/Kg		90	70 - 130	11	35	
Toluene	0.100	0.09451		mg/Kg		95	70 - 130	3	35	
Ethylbenzene	0.100	0.1038		mg/Kg		104	70 - 130	3	35	
m-Xylene & p-Xylene	0.200	0.2295		mg/Kg		115	70 - 130	6	35	
o-Xylene	0.100	0.1105		mg/Kg		111	70 - 130	7	35	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	127	70 - 130
1,4-Difluorobenzene (Surr)	114	70 - 130

Lab Sample ID: 890-2998-A-1-C MS

Matrix: Solid

Analysis Batch: 35151

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

Prep Batch: 35157

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.09601		mg/Kg		96	70 - 130	
Toluene	<0.00200	U	0.0998	0.08061		mg/Kg		81	70 - 130	

QC Sample Results

Job ID: 890-2936-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: 890-2998-A-1-C MS

Lab Sample ID: 890-2998-A-1-D MSD

Matrix: Solid

Analysis Batch: 35151

Prep Type: Total/NA

Prep Batch: 35157

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene <0.00200 U 0.0998 0.08856 89 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00401 0.200 0.1986 mg/Kg 99 70 - 130 <0.00200 U 0.0998 0.09612 96 70 - 130 o-Xylene mg/Kg

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	126	70 - 130
1,4-Difluorobenzene (Surr)	122	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35157

Matrix: Solid Analysis Batch: 35151 Sample Sample Spike MSD MSD

RPD Result Qualifier %Rec RPD Limit Analyte babbA Result Qualifier Limits Unit Benzene <0.00200 U 0.100 0.09474 mg/Kg 94 70 - 130 1 35 Toluene <0.00200 0.100 0.09384 mg/Kg 93 70 - 130 15 35 Ethylbenzene <0.00200 U 0.100 0.1035 103 70 - 130 16 35 mg/Kg 0.201 m-Xylene & p-Xylene <0.00401 U 0.2299 mg/Kg 114 70 - 130 15 35 <0.00200 U 0.100 0.1098 70 - 130 o-Xylene mg/Kg 109 13

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	121		70 - 130

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

Lab Sample ID: MB 880-34596/1-A

Matrix: Solid

Analysis Batch: 34626

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

Prep Batch: 34596

мв мв Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 50.0 09/15/22 14:25 <50.0 U 09/16/22 07:29 Gasoline Range Organics mg/Kg (GRO)-C6-C10 09/15/22 14:25 09/16/22 07:29 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 09/15/22 14:25 09/16/22 07:29 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	09/15/22 14:25	09/16/22 07:29	1
o-Terphenyl	110		70 - 130	09/15/22 14:25	09/16/22 07:29	1

Lab Sample ID: LCS 880-34596/2-A

Matrix: Solid

Analysis Batch: 34626

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

Prep Batch: 34596 Spike LCS LCS %Rec

Added Analyte Result Qualifier Unit %Rec Limits 1000 104 70 - 130 1038 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 831.5 mg/Kg 83 70 - 130

C10-C28)

Client: Ensolum Job ID: 890-2936-1 Project/Site: SEMU BMT SDG: 03D2057013

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

LCS LCS

Lab Sample ID: LCS 880-34596/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Analysis Batch: 34626

Prep Type: Total/NA

Prep Batch: 34596

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 109 70 - 130 o-Terphenyl 93 70 - 130

Lab Sample ID: LCSD 880-34596/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 34626

Prep Type: Total/NA

Prep Batch: 34596

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 987.7 99 70 - 130 5 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 860.7 86 mg/Kg 70 - 1303 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-2942-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 34626

Prep Type: Total/NA

Prep Batch: 34596

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U	996	877.7		mg/Kg		88	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	996	1165		mg/Kg		112	70 - 130	
C10-C28)										

C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 101 o-Terphenyl 96 70 - 130

Lab Sample ID: 890-2942-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 34626

Prep Type: Total/NA

Prep Batch: 34596

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	784.3		mg/Kg		79	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1029		mg/Kg		99	70 - 130	12	20

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	85		70 - 130

Job ID: 890-2936-1

SDG: 03D2057013

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34507/1-A

Matrix: Solid

Analysis Batch: 34836

Project/Site: SEMU BMT

Client: Ensolum

Analyte

Chloride

Client Sample ID: Method Blank **Prep Type: Soluble**

мв мв Dil Fac Result Qualifier RL Unit D Prepared Analyzed <5.00 U 5.00 mg/Kg 09/19/22 08:46

Lab Sample ID: LCS 880-34507/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 34836

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 246.3 mg/Kg 99 90 - 110

Lab Sample ID: LCSD 880-34507/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 34836

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 247.4 mg/Kg 90 - 110

Lab Sample ID: 890-2936-1 MS **Client Sample ID: PH01 Matrix: Solid Prep Type: Soluble**

Analysis Batch: 34836

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 76.9 251 325.8 90 - 110 mg/Kg

Lab Sample ID: 890-2936-1 MSD

Matrix: Solid

Analysis Batch: 34836

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 251 76.9 325.7 mg/Kg 99 90 - 110 0 20

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Client Sample ID: PH01

Prep Type: Soluble

QC Association Summary

 Client: Ensolum
 Job ID: 890-2936-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

GC VOA

Analysis Batch: 35151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Total/NA	Solid	8021B	35157
890-2936-2	PH01	Total/NA	Solid	8021B	35157
MB 880-35157/5-A	Method Blank	Total/NA	Solid	8021B	35157
LCS 880-35157/1-A	Lab Control Sample	Total/NA	Solid	8021B	35157
LCSD 880-35157/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35157
890-2998-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	35157
890-2998-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35157

Prep Batch: 35157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Total/NA	Solid	5035	
890-2936-2	PH01	Total/NA	Solid	5035	
MB 880-35157/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35157/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35157/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2998-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2998-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 35333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Total/NA	Solid	Total BTEX	
890-2936-2	PH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 34596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Total/NA	Solid	8015NM Prep	
890-2936-2	PH01	Total/NA	Solid	8015NM Prep	
MB 880-34596/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34596/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34596/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2942-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2942-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Total/NA	Solid	8015B NM	34596
890-2936-2	PH01	Total/NA	Solid	8015B NM	34596
MB 880-34596/1-A	Method Blank	Total/NA	Solid	8015B NM	34596
LCS 880-34596/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34596
LCSD 880-34596/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34596
890-2942-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	34596
890-2942-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34596

Analysis Batch: 34821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Total/NA	Solid	8015 NM	
890-2936-2	PH01	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-2936-1
SDG: 03D2057013

HPLC/IC

Leach Batch: 34507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Soluble	Solid	DI Leach	
890-2936-2	PH01	Soluble	Solid	DI Leach	
MB 880-34507/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34507/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34507/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2936-1 MS	PH01	Soluble	Solid	DI Leach	
890-2936-1 MSD	PH01	Soluble	Solid	DI Leach	

Analysis Batch: 34836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2936-1	PH01	Soluble	Solid	300.0	34507
890-2936-2	PH01	Soluble	Solid	300.0	34507
MB 880-34507/1-A	Method Blank	Soluble	Solid	300.0	34507
LCS 880-34507/2-A	Lab Control Sample	Soluble	Solid	300.0	34507
LCSD 880-34507/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34507
890-2936-1 MS	PH01	Soluble	Solid	300.0	34507
890-2936-1 MSD	PH01	Soluble	Solid	300.0	34507

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Lab Chronicle

Client: Ensolum Job ID: 890-2936-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: PH01

Date Received: 09/13/22 08:26

Lab Sample ID: 890-2936-1 Date Collected: 09/12/22 10:45 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	35157	09/22/22 10:27	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35151	09/22/22 21:32	MR	EET MID
Total/NA	Analysis	Total BTEX		1			35333	09/25/22 11:05	MR	EET MID
Total/NA	Analysis	8015 NM		1			34821	09/19/22 11:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34596	09/15/22 14:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34626	09/16/22 16:44	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	34507	09/14/22 13:32	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34836	09/19/22 09:01	CH	EET MID

Lab Sample ID: 890-2936-2 **Client Sample ID: PH01**

Date Collected: 09/12/22 12:25 **Matrix: Solid**

Date Received: 09/13/22 08:26

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 5.02 g 5 mL 35157 09/22/22 10:27 MR EET MID 8021B Total/NA 5 mL 09/22/22 21:53 **EET MID** Analysis 1 5 mL 35151 MR Total/NA Total BTEX 35333 09/25/22 11:05 MR Analysis 1 **EET MID** Total/NA Analysis 8015 NM 34821 09/19/22 11:13 SM **EET MID** Total/NA 09/15/22 14:25 Prep 8015NM Prep 10.03 g 10 mL 34596 DM **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 34626 09/16/22 17:05 SM **EET MID** 09/14/22 13:32 Soluble Leach DI Leach 4.96 g 50 mL 34507 SMC **EET MID** Soluble Analysis 300.0 50 mL 50 mL 34836 09/19/22 09:16 СН **EET MID**

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-2936-1
SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas	NI	ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report hi	it the laboratory is not certific	ed by the governing authority. This list ma	y include analytes for y	
the agency does not of	. ,	it the laboratory is not contin	ou by the governing additionty. This list the	ay include analytes for t	
0 ,	. ,	Matrix	Analyte	y include analytes for v	
the agency does not of	fer certification.	•	, , ,		

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EET MID

ASTM

Method Summary

 Client: Ensolum
 Job ID: 890-2936-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

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

Protocol References:

DI Leach

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Deionized Water Leaching Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-2936-1

SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Dep
890-2936-1	PH01	Solid	09/12/22 10:45	09/13/22 08:26	1
890-2936-2	PH01	Solid	09/12/22 12:25	09/13/22 08:26	4

Relinquished by: (Signature)

B

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

ed Date: 08/25/2020 Rev 2020.2

Address:

Chain of Custody

s eurotins	Environment Testing	Houston, TX (281) Midland, TX (432) 70	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Et Para TV (432) 704-5440 I history TX (496) 704-1706		Work Order No:
		Hobbs, NM (575) 3	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199		www.xenco.com Page 1 of 1
Project Manager:	osn Adams	Bill to: (if different)			Work Order Comments
U)	Ensolum	Company Name:		Program: UST/PST] PRP□ Brownfields□ RRC□ Superfund□
	3122 NOX+ PURKS HWY	٠		State of Project:	
e ZIP:	1	City, State ZIP:		Reporting: Level II	Reporting: Level III Level III PST/UST TRRP Level IV
W	37	ms	bensolum com	Deliverables: EDD	ADaPT Other:
Name:	SEMU BMT	Turn Around	A	ANALYSIS REQUEST	Preservative Codes
ber:	S DROUT	Rush Code			None: NO DI Water: H ₂ O
_	ECCONOTE NM Due Date:	5 day to			Cool: Cool MeOH: Me
_		he day received by		-	HCL: HC HNO 3: HN
	Z P the lab, if i				H ₂ SO ₄ : H ₂ NaOH: Na
LE RECEIPT	Temp Blank: Yes No Wet Ice:	No seters	121		H ₃ PO ₄ : HP
Samples Received Intact:	res No Thermometer ID:		(3		NaHSO 4: NABIS
Cooler Custody Seals:	Yes No NA Correction Factor:	Pa	51S		Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No N/A Temperature Reading:		(P(890-2936 Chain of Cusions	Zn Acetate+NaOH: Zn
Total Containers:	Corrected Temperature:	6	1		NaCH+Ascorbic Acid: SAPC
Sample Identification	otion Matrix Sampled Sampled	Depth Grab/ # of Comp Cont	TPH BT		Sample Comments
PHOI	5 9-12-22 1045	1. 0 ×	x y		0302057013
PHOI		よるメ	X		
					incident number
					NAPP2717430297
					also email:
					Kyennings @ ensulum
					Com
					11.hccococococococococococococococococococ
					(OST COSTE: (SA133373
Total 200.7 / 6010	Total 200.7 / 6010 200.8 / 6020: 8RCRA 13 Circle Method(s) and Metal(s) to be analyzed TCLP	8RCRA 13PPM Texas 11 Al Sb As Ba TCLP/SPLP6010: 8RCRA Sb As B	Be B Cd Ca Cr Co a Be Cd Cr Co Cu P	∕In Mo Ni K Se Ag Tl U	Ag SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471
ice: Signature of this docume	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 for the control of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions for the control of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions that the control of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions that the control of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions that the control of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions that the control of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors.	order from client company to Eurofins Xe	urred by the client If such losses are due	assigns standard terms and conditions to circumstances beyond the control	
urofins Xenco. A minimum ch	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.	\$5 for each sample submitted to Eurofin	s Xenco, but not analyzed. These terms v	vill be enforced unless previously negotiated.	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2936-1

SDG Number: 03D2057013

Login Number: 2936 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 ampered 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	
s the Field Sampler's name present on COC?	True	
here 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	
ppropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
here 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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Login Sample Receipt Checklist

Job Number: 890-2936-1

SDG Number: 03D2057013

List Source: Eurofins Midland

List Creation: 09/14/22 11:07 AM

Login Number: 2936 List Number: 2

Creator: Rodriguez, Leticia

Client: Ensolum

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	

Eurofins Carlsbad

Released to Imaging: 1/4/2023 11:44:06 AM

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Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3087-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/7/2022 4:38:31 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3087-1
SDG: 03D2057013

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Definitions/Glossary

Job ID: 890-3087-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Qualifiers

GC VOA

Qualifier **Qualifier Description** LCS/LCSD RPD exceeds control limits. F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier **Qualifier Description**

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 DFR 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

Relative Percent Difference, a measure of the relative difference between two points

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) EPA recommended "Maximum Contaminant Level" MCL

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL 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**

RPD

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Case Narrative

Job ID: 890-3087-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Job ID: 890-3087-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3087-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36328 and analytical batch 880-36341 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36328 and analytical batch 880-36341 recovered outside control limits for the following analytes: Benzene.

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

GC Semi VOA

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

HPLC/IC

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

Eurofins Carlsbad 10/7/2022

Matrix: Solid

Lab Sample ID: 890-3087-1

Job ID: 890-3087-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA01

Date Collected: 09/26/22 15:00 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:21	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:21	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/07/22 08:23	10/07/22 15:21	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:21	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/07/22 08:23	10/07/22 15:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			10/07/22 08:23	10/07/22 15:21	1
1,4-Difluorobenzene (Surr)	110		70 - 130			10/07/22 08:23	10/07/22 15:21	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/07/22 17:23	1
Method: SW846 8015 NM - Diese	I Range Organ	ice (DRO) (3C)					
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (0 Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
			•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 09/30/22 09:27	Dil Fac
Analyte	Result 227	Qualifier	49.9		<u>D</u>	Prepared		
Analyte Total TPH	Result 227	Qualifier	49.9		<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 227	Qualifier nics (DRO) Qualifier	RL 49.9	mg/Kg			09/30/22 09:27	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 227 sel Range Orga Result	Qualifier nics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg		Prepared	09/30/22 09:27 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies	Result 227 sel Range Orga Result <49.9	Qualifier nics (DRO) Qualifier U	(GC) RL 49.9	mg/Kg Unit mg/Kg		Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:43	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 227 sel Range Orga Result <49.9 227	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:43 09/29/22 14:43	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 227 sel Range Orga Result <49.9 227 249.9	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:43 09/29/22 14:43	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared	Analyzed 09/29/22 14:43 09/29/22 14:43 Analyzed Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:43 09/29/22 14:43 Analyzed 09/29/22 14:43	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:43 09/29/22 14:43 Analyzed 09/29/22 14:43	1 Dil Fac 1 1 1 1 Dil Fac 1

Client Sample ID: HA01 Lab Sample ID: 890-3087-2

Date Collected: 09/26/22 15:05 Date Received: 09/28/22 08:29

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/07/22 08:23	10/07/22 15:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 15:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/07/22 08:23	10/07/22 15:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			10/07/22 08:23	10/07/22 15:42	

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Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3087-2

09/30/22 12:54

Client Sample Results

 Client: Ensolum
 Job ID: 890-3087-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Client Sample ID: HA01

Date Collected: 09/26/22 15:05 Date Received: 09/28/22 08:29

Sample Depth: 2

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107		70 - 130			10/07/22 08:23	10/07/22 15:42	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/07/22 17:23	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	428		50.0	mg/Kg			09/30/22 09:27	1
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies			• •					
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 15:04	1
Diesel Range Organics (Over C10-C28)	353		50.0	mg/Kg		09/29/22 08:29	09/29/22 15:04	1
/	74.5		50.0	mg/Kg		09/29/22 08:29	09/29/22 15:04	1
Oll Range Organics (Over C28-C36)			Limits			Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36) Surrogate	%Recovery	Qualifier						
,		Qualifier	70 - 130			09/29/22 08:29	09/29/22 15:04	

5.00

mg/Kg

306

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3087-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3063-A-1-D MS	Matrix Spike	108	100	
890-3063-A-1-E MSD	Matrix Spike Duplicate	100	108	
890-3087-1	HA01	96	110	
890-3087-2	HA01	108	107	
LCS 880-36328/1-A	Lab Control Sample	114	102	
LCSD 880-36328/2-A	Lab Control Sample Dup	115	105	
MB 880-36328/5-A	Method Blank	105	110	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1				
Lab Sample ID	Client Sample ID	(70-130)	(70-130)				
890-3087-1	HA01	88	85				
890-3087-2	HA01	93	91				
890-3099-A-1-E MS	Matrix Spike	88	85				
890-3099-A-1-F MSD	Matrix Spike Duplicate	89	84				
LCS 880-35652/2-A	Lab Control Sample	102	103				
LCSD 880-35652/3-A	Lab Control Sample Dup	101	105				
MB 880-35652/1-A	Method Blank	100	108				

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum Job ID: 890-3087-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36328/5-A

Matrix: Solid Analysis Batch: 36341 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36328

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/07/22 08:23	10/07/22 12:50	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	10/07/22 08:23	10/07/22 12:50	1
1,4-Difluorobenzene (Surr)	110		70 - 130	10/07/22 08:23	10/07/22 12:50	1

Lab Sample ID: LCS 880-36328/1-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Analysis Batch: 36341

Prep Type: Total/NA Prep Batch: 36328

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.07461 mg/Kg 75 70 - 130 Toluene 0.100 0.08217 mg/Kg 82 70 - 130 0.100 85 Ethylbenzene 0.08494 mg/Kg 70 - 130 0.200 0.1722 86 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.08846 70 - 130 o-Xylene mg/Kg 88

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-36328/2-A

Matrix: Solid

Analysis Batch: 36341

Prep Type: Total/NA Prep Batch: 36328

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Benzene 0.100 0.1124 mg/Kg 112 70 - 130 40 35 Toluene 0.100 0.1167 mg/Kg 117 70 - 130 35 35 Ethylbenzene 0.100 0.1188 mg/Kg 119 70 - 130 33 35 0.200 m-Xylene & p-Xylene 0.2420 mg/Kg 121 70 - 130 34 35 0.100 0.1192 o-Xylene mg/Kg 119 70 - 130 30 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1.4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3063-A-1-D MS

Matrix: Solid

Analysis Batch: 36341

Client Sample ID: Matrix Spike

Prep Batch: 36328

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U *1 F1	0.100	0.06254	F1	mg/Kg	_	62	70 - 130	
Toluene	<0.00201	U F1 F2	0.100	0.04666	F1	mg/Kg		46	70 - 130	

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Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36328

QC Sample Results

Client: Ensolum Job ID: 890-3087-1 Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: 890-3063-A-1-D MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 36341

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U F1 F2	0.100	0.02857	F1	mg/Kg		28	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.201	0.05403	F1	mg/Kg		27	70 - 130	
o-Xylene	<0.00201	U F1 F2	0.100	0.02669	F1	mg/Kg		27	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	· Limits
4-Bromofluorobenzene (Surr)	108	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

Lab Sample ID: 890-3063-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**

Matrix: Solid

Analyte

Analysis Batch: 36341

								Prep	ype: Iotal/NA		
								Prep	Batch:	36328	
Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
<0.00201	U *1 F1	0.0998	0.08491		mg/Kg		85	70 - 130	30	35	

Benzene Toluene 0.0998 0.06815 F1 F2 70 - 130 <0.00201 UF1F2 mg/Kg 68 37 35 Ethylbenzene <0.00201 UF1F2 0.0998 0.04339 F1 F2 mg/Kg 43 70 - 130 41 35 m-Xylene & p-Xylene <0.00402 U F1 F2 0.200 0.07834 F1 F2 70 - 130 37 mg/Kg 35 0.0998 o-Xylene <0.00201 U F1 F2 0.03992 F1 F2 40 70 - 130 40 mg/Kg MSD MSD

Surrogate	%Recovery Qua	lifier Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

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

Lab Sample ID: MB 880-35652/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 35652

Analysis Batch: 35641

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg	_	09/29/22 08:29	09/29/22 09:45	1	
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 09:45	1	
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 09:45	1	

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	09/29/22 08:29	09/29/22 09:45	1
o-Terphenvl	108		70 - 130	09/29/22 08:29	09/29/22 09:45	1

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 880-35652/2-A

Analysis Batch: 35641

Matrix: Solid

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	951.3		mg/Kg		95	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	925.7		mg/Kg		93	70 - 130	

C10-C28)

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Prep Type: Total/NA

Prep Batch: 35652

Job ID: 890-3087-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: LCS 880-35652/2-A

Lab Sample ID: LCSD 880-35652/3-A

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35652

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 102 70 - 130 o-Terphenyl 103 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Batch: 35652

Matrix: Solid Prep Type: Total/NA Analysis Batch: 35641

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1011 101 70 - 1306 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 93 927.4 mg/Kg 70 - 1300 20 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 101 70 - 130 1-Chlorooctane 105 70 - 130 o-Terphenyl

Lab Sample ID: 890-3099-A-1-E MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 35641

Prep Type: Total/NA

Prep Batch: 35652

Sample Sample MS MS Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics 215 998 1232 mg/Kg 102 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 250 998 1057 mg/Kg 81 70 - 130

C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 88 o-Terphenyl 85 70 - 130

Lab Sample ID: 890-3099-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 35641

Prep Type: Total/NA

Prep Batch: 35652

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit 999 1237 102 Gasoline Range Organics 215 mg/Kg 70 - 130 n 20 (GRO)-C6-C10 Diesel Range Organics (Over 250 999 1062 mg/Kg 81 70 - 130 20

C10-C28)

MSD MSD

%Recovery Qualifier Surrogate Limits 1-Chlorooctane 89 70 - 130 84 70 - 130 o-Terphenyl

Job ID: 890-3087-1

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35685/1-A

Matrix: Solid

Analysis Batch: 35807

мв мв

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 09/30/22 11:56

Lab Sample ID: LCS 880-35685/2-A

Matrix: Solid

Analysis Batch: 35807

Spike LCS LCS %Rec Added %Rec Analyte Result Qualifier Unit D Limits Chloride 250 242.1 mg/Kg 97 90 - 110

Lab Sample ID: LCSD 880-35685/3-A

Matrix: Solid

Analysis Batch: 35807

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 243.5 mg/Kg 90 - 110

Lab Sample ID: 890-3085-A-1-C MS

Matrix: Solid

Analysis Batch: 35807

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Qualifier %Rec Result Unit Limits Chloride 245 249 477.6 90 - 110 mg/Kg

Lab Sample ID: 890-3085-A-1-D MSD

Matrix: Solid

Analysis Batch: 35807

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 249 245 479.5 mg/Kg 94 90 - 110 0 20

QC Association Summary

 Client: Ensolum
 Job ID: 890-3087-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

GC VOA

Prep Batch: 36328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Total/NA	Solid	5035	
890-3087-2	HA01	Total/NA	Solid	5035	
MB 880-36328/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36328/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36328/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3063-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3063-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Total/NA	Solid	8021B	36328
890-3087-2	HA01	Total/NA	Solid	8021B	36328
MB 880-36328/5-A	Method Blank	Total/NA	Solid	8021B	36328
LCS 880-36328/1-A	Lab Control Sample	Total/NA	Solid	8021B	36328
LCSD 880-36328/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36328
890-3063-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	36328
890-3063-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36328

Analysis Batch: 36416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Total/NA	Solid	Total BTEX	
890-3087-2	HA01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Total/NA	Solid	8015B NM	35652
890-3087-2	HA01	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Total/NA	Solid	8015NM Prep	
890-3087-2	HA01	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Total/NA	Solid	8015 NM	
890-3087-2	HA01	Total/NA	Solid	8015 NM	

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13

QC Association Summary

 Client: Ensolum
 Job ID: 890-3087-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

HPLC/IC

Leach Batch: 35685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Soluble	Solid	DI Leach	
890-3087-2	HA01	Soluble	Solid	DI Leach	
MB 880-35685/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35685/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35685/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3085-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3085-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3087-1	HA01	Soluble	Solid	300.0	35685
890-3087-2	HA01	Soluble	Solid	300.0	35685
MB 880-35685/1-A	Method Blank	Soluble	Solid	300.0	35685
LCS 880-35685/2-A	Lab Control Sample	Soluble	Solid	300.0	35685
LCSD 880-35685/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35685
890-3085-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	35685
890-3085-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35685

-

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12

1 /

Analysis

Analysis

Leach

Leach

Analysis

Date Received: 09/28/22 08:29

Total/NA

Soluble

Soluble

Soluble

Soluble

Job ID: 890-3087-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA01 Lab Sample ID: 890-3087-1 Date Collected: 09/26/22 15:00

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 5.02 g 5 mL 36328 10/07/22 08:23 MNR **EET MID** Total/NA Analysis 8021B 1 5 mL 5 mL 36341 10/07/22 15:21 MNR EET MID Total/NA Analysis Total BTEX 36416 10/07/22 17:23 SM **EET MID** 8015 NM Total/NA Analysis 1 35766 09/30/22 09:27 SM **EET MID** 35652 09/29/22 08:29 EET MID Total/NA 8015NM Prep 10.02 g 10 mL DM Prep

Client Sample ID: HA01 Lab Sample ID: 890-3087-2

1 uL

4.98 g

1 uL

50 mL

50 mL

35641

35685

35807

35685

35807

09/29/22 14:43

09/29/22 12:08

09/30/22 12:40

09/29/22 12:08

09/30/22 12:54

SM

SMC

СН

SMC

СН

Date Collected: 09/26/22 15:05 Matrix: Solid Date Received: 09/28/22 08:29

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Lab **Analyst** Prep 5.03 g Total/NA 5035 5 mL 36328 10/07/22 08:23 MNR EET MID 8021B Total/NA Analysis 1 5 mL 5 mL 36341 10/07/22 15:42 MNR EET MID Total/NA Total BTEX Analysis 1 36416 10/07/22 17:23 SM **EET MID** Total/NA Analysis 8015 NM 35766 09/30/22 09:27 SM **EET MID** 35652 Total/NA 8015NM Prep 10.01 g 10 mL 09/29/22 08:29 DM **EET MID** Prep Total/NA Analysis 8015B NM 1 uL 1 uL 35641 09/29/22 15:04 SM **EET MID**

5 g

Laboratory References:

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

DI Leach

300.0

8015B NM

DI Leach

300.0

Eurofins Carlsbad

EET MID

EET MID

EET MID

EET MID

EET MID

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT

SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-22-24	06-30-23
,		ut the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for wh
the agency does not of	ter certification.			
the agency does not of Analysis Method	fer certification. Prep Method	Matrix	Analyte	
,		Matrix Solid	Analyte Total TPH	

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Method Summary

Job ID: 890-3087-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Job ID: 890-3087-1

Project/Site: SEMU BMT SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	De
890-3087-1	HA01	Solid	09/26/22 15:00	09/28/22 08:29	1
890-3087-2	HA01	Solid	09/26/22 15:05	09/28/22 08:29	2

Relinquished by: (Signature)

Received by: (Signature)

9-38-23 831

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020 2

eurofins Xenco **Environment Testing**

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

		7111 4					J.W.	Work Order Comments
Jose Additio		OIII w. (11 union		T / Wall				in a supplied to the supplied
Ensolum		Company Nar		olum			Program: USI/PSI [T	Program: USI/PSI PRP Brownileius NAC Superium
3122 National Parks H	lwy.	Address:	312	2 National P	arks Hwy.		State of Project:	
Carlsbad, NM 88220		City, State ZIF		Isbad, NM 8	3220		Reporting: Level II Lev	Reporting: Level II Level III PST/UST TRRP Level IV
3035178437		Email: jadams@en	solum.com	and kjennin	gs@ensolum.co	om	Deliverables: EDD	ADaPT Other:
SEMU BMT		Turn Around				NALYSIS RE	QUEST	Preservative Codes
03D205701		utine 🗌 Rush	Pres. Code					None: NO DI Water: H ₂ O
Lea County, N				_				<u>u</u>
Liz Cheli		starts the day received b	y 			-	_	
N/A	the la	ab, if received by 4:30pn	-	1				H ₂ S0 ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT Temp Blank:	Yes No Wet	lice: e No						H ₃ PO ₄ : HP
Samples Received Intact: Kes No	Thermometer ID:	- Common						NaHSO4: NABIS
Ye	Correction Factor:	S-8-			o <u>-</u>			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals: Yes No N/A	Temperature Read	ling: 1.6	S (E			90-3007 CIIBII		Zn Acetate+NaOH: Zn
	Corrected Tempera	ature: 1.4	UDE:	015)				NaOH+Ascorbic Acid: SAPC
Sample Identification Matrix	Date Sampled	Depth	# of Cont	TPH (8				Sample Comments
HA01 S	9/26/22 15	1.	_	×				Incident ID:
HA01		2	1	×				NAPP2217430297
								Cost Code - GA130323
	22							AFE000000000471
		6						
Total 200.7 / 6010 200.8 / 6020:	8RCR/	13PPM	Al Sb	Ве	Cd Ca	Co Cu Fe Pi	o Mg Mn MoNiK Se A	Ag SiO ₂ Na Sr TI Sn U V Zn
d Metal(s) to be analy.		LP / SPLP 6010: 8		As Ba Be	Cd Cr Co C	u Pb Mn Mo	Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471
ocument and relinquishment	of samples constitutes	a valid purchase order fr	om client comp	any to Eurofins	Xenco, its affiliates	and subcontractor	3. It assigns standard terms and c	conditions
num charge of \$85.00 will be	st of samples and snail applied to each project	not assume any respons and a charge of \$5 for ea	ach sample sub	mitted to Eurof	ns Xenco, but not ar	halyzed. These terr	ns will be enforced unless previous	usly negotiated.
	Ensolum 3122 National Parks H Carlsbad, NM 88220 3035178437 SEMU BMT 03D205701 Lea County, I Liz Cheli N/A Temp Blank: tact: Yes No Yes No (I/A) Is: Yes No SEMU BMT 03D205701 Lea County, I Liz Cheli N/A SEMU BMT 03D205701 Lea County, I Liz Cheli N/A SEMU BMT 03D205701 Lea County, I Liz Cheli N/A SEMU BMT 03D205701 S S S 1 S S S S S S S S S S S S S S S	Project Manager: Company Name: Ensolum Address: 3122 National Parks Hwy. City, State ZIP: Carlsbad, NM 88220 Phone: 3035178437 Project Name: Lea County, NM Project Number: 03D2057013 Project Location: Lea County, NM Duel Sampler's Name: Liz Cheli TAT's NAME Correction Factor: NAME Correction Factor: Sample Custody Seals: Yes No NAME Corrected Temper Total Containers: Date Sample Identification Sample Identification HA01 S 9/26/22 15 HA01 S 9/26/22 15 Total 200.7 / 6010 200.8 / 6020: SCRUCK: Signature of this document and relinquishment of samples constitutes of service. Eurofins Xenco will be liable only for the cost of samples and shall of t	Semul Barks Hwy. Company Nau	Ensolum Company Name: Ensolum Company Name: Ensolum SEMU BMT SEMU BMT Lea County, NM Lea County, NM Lea County, NM Correction Factor: Yes No MA Corrected Temperature: Time Reading: Time Popth Company Name: Ensolum com Thermometer ID: Yes No MA Corrected Temperature: Time Depth Company Name: Ensolum com Pres. Carl Shad, NM 88220 Email: adams @ensolum com Pres. Code Pres.	Semantication Bill to: (if different) Josh Adams	Dosh Adams Bill to: (If different) Josh Adams	Losh Adams Company Name: Ensolum Company Name: Company Name: Ensolum Company Name: Ensolum Company Name: Company Name: Ensolum Company Name: Ensolum Company Name: Company Name: Ensolum Company Name: Company	Bill to: (if different) Company Name: Ensolum Address: 3122 National Parks Hwy. City, State ZIP: Carlsbad, NM 88220 Email: adams@ensolum com and kiennings@ensolum.com Turn Around Routine Rush Due Date: 5 Day TAT TAT staffs the day received by 4.30pm the lab. if received

Relinquished by: (Signature)

Received by: (Signature)

£3 86.36.

Relinquished by: (Signature)

Received by: (Signature)

Revised Date: 08/25/2020 Rev. 2020 2

eurofins

Project Manager:

Bill to: (if different)

Company Name:

Ensolum Josh Adams

Company Name:

Ensolum Josh Adams

Address:

City, State ZIP:

3035178437 Carlsbad, NM 88220 3122 National Parks Hwy

Email: jadams@ensolum.com and kjennings@ensolum.com

ANALYSIS

City, State ZIP:

Carlsbad, NM 88220 3122 National Parks Hwy

SAMPLE RECEIPT

Sampler's Name:

Project Location:

Lea County, NM 03D2057013 SEMU BMT

Due Date: ☑ Routine

5 Day TAT ☐ Rush **Turn Around**

Code

Project Number:

Project Name:

Environment Testing

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

REQUEST Preservative Codes	None: NO DI Water: H ₂ O
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Relinquished by: (Signature)	otice: Signature of this docum service. Eurofins Xenco will Eurofins Xenco. A minimum	ircle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010							HA02	HA02	Sample Identification	otal Containers:	ample Custody Seals:	ooler Custody Seals:	amples Received Intact:	AMPLE RECEIPT	0#	ampler's Name:	
gnature)	nent and relinquishment be liable only for the co charge of \$85.00 will be	letal(s) to be analy	200.8 / 6020:							S	S	ation Matrix		Yes No WA	Yes No Nix	(es) No	Temp Blank:	N/A	Liz Cheli	
Received	of samples consti et of samples and applied to each pu		8R							9/26/22	9/26/22	Date Sampled	Corrected Temperature:	N/A Temperature Reading:	Correction Factor:	Thermometer ID:	(Fes No		7	
Received by: (Signature)	tutes a valid purch shall not assume : oject and a charg	TCLP / SPLF	CRA 13PPM	_						1515 2'	1510 1'	Time De	perature:			Ž	Wet Ice:	the lab, if received by 4:30pm	TAT starts the day received by	
	lase order from c any responsibility e of \$5 for each s	6010: 8RC	Texas 11				G	4	21	Comp	Comp	Depth Grab/ # of Comp Cont	12	9	6.0	100×	Yes No	d by 4:30pm	received by	
Date/Time	lient company t y for any losses ample submitte	RA Sb As	Al Sb As								1 ×	Cont of	RIDE	S (E			nete ().0)	ers		_
ime	to Eurofins Xenc or expenses inc d to Eurofins Xe	Ba Be Cd	Ba Be B C							×	×	TPH (8	-	- 1						_
Relinquished by: (Signature) Received	tice: 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 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 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	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	8RCRA 13PPM Texas 11 AISb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se											890-3086 Chain of Custody						
Received by: (Signature) Date/Time	nd conditions nd the control ously negotiated.	Hg: 1631 / 245.1 / 7470 / 7471	Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn					AFE000000000471	Cost Code - GA130323	NAPP2217430297	Incident ID:	Sample Comments	NaCH+Ascorbic Acid: SAPC	Zn Acetate+NaCH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHVC4: NABIV	H ₃ PO ₄ : HP	H ₂ SO ₄ : H ₂ NaOH: Na		

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3087-1 SDG Number: 03D2057013

Login Number: 3087 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Job Number: 890-3087-1

SDG Number: 03D2057013

List Source: Eurofins Midland

List Creation: 09/29/22 11:12 AM

List Number: 2 Creator: Rodriguez, Leticia

Client: Ensolum

Login Number: 3087

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	N/A	

Released to Imaging: 1/4/2023 11:44:06 AM

<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3086-1

Laboratory Sample Delivery Group: Lea County NM

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/7/2022 4:38:08 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT

Laboratory Job ID: 890-3086-1 SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum Job ID: 890-3086-1
Project/Site: SEMU BMT SDG: Lea County NM

2

Qualifiers

GC VOA

 Qualifier
 Qualifier Description

 *1
 LCS/LCSD RPD exceeds control limits.

 F1
 MS and/or MSD recovery exceeds control limits.

 F2
 MS/MSD RPD exceeds control limits

rz Wis/Wisd RPD exceeds control limit

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

 Qualifier
 Qualifier Description

 U
 Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

Listed under the "D" column to designate that the result is reported on a dry weight bal %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

Eurofins Carlsbad

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Case Narrative

Client: Ensolum Job ID: 890-3086-1
Project/Site: SEMU BMT SDG: Lea County NM

Job ID: 890-3086-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3086-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36328 and analytical batch 880-36341 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36328 and analytical batch 880-36341 recovered outside control limits for the following analytes: Benzene.

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

GC Semi VOA

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

HPLC/IC

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

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Matrix: Solid

Lab Sample ID: 890-3086-1

Client Sample Results

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3086-1

SDG: Lea County NM

Client Sample ID: HA02

Date Collected: 09/26/22 15:10 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199	mg/Kg		10/07/22 08:23	10/07/22 14:41	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 14:41	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 14:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/07/22 08:23	10/07/22 14:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/07/22 08:23	10/07/22 14:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/07/22 08:23	10/07/22 14:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			10/07/22 08:23	10/07/22 14:41	1
1,4-Difluorobenzene (Surr)	103		70 - 130			10/07/22 08:23	10/07/22 14:41	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/07/22 17:23	1
_	1 D							
Mothod: SW846 8015 NM - Dioed		ice (NDN) //	2C)					
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (0 Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 09/30/22 09:27	Dil Fac
Analyte Total TPH	Result <50.0	Qualifier U	50.0		<u>D</u>	Prepared		
Analyte	Result <50.0 sel Range Orga	Qualifier U	50.0		<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0 sel Range Orga	Qualifier Unics (DRO) Qualifier	RL 50.0	mg/Kg	-		09/30/22 09:27	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL	mg/Kg	-	Prepared	09/30/22 09:27 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <50.0 sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U	(GC) RL 50.0	mg/Kg Unit mg/Kg	-	Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 13:17	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 13:17 09/29/22 13:17	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 13:17 09/29/22 13:17	Dil Fac 1 1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared	09/30/22 09:27 Analyzed 09/29/22 13:17 09/29/22 13:17 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 13:17 09/29/22 13:17 Analyzed 09/29/22 13:17	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 13:17 09/29/22 13:17 Analyzed 09/29/22 13:17	1 Dil Fac 1 Dil Fac 1

Client Sample ID: HA02

Date Collected: 09/26/22 15:15

Date Received: 09/28/22 08:29

Released to Imaging: 1/4/2023 11:44:06 AM

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198	mg/Kg		10/07/22 08:23	10/07/22 15:01	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/07/22 08:23	10/07/22 15:01	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/07/22 08:23	10/07/22 15:01	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		10/07/22 08:23	10/07/22 15:01	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/07/22 08:23	10/07/22 15:01	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		10/07/22 08:23	10/07/22 15:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/07/22 08:23	10/07/22 15:01	1

Eurofins Carlsbad

Lab Sample ID: 890-3086-2

Matrix: Solid

5

3

7

9

4.0

Matrix: Solid

Lab Sample ID: 890-3086-2

09/30/22 12:35

Client Sample Results

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3086-1

SDG: Lea County NM

Client Sample ID: HA02

Date Collected: 09/26/22 15:15 Date Received: 09/28/22 08:29

Sample Depth: 2

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130			10/07/22 08:23	10/07/22 15:01	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			10/07/22 17:23	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			09/30/22 09:27	1
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/29/22 08:29	09/29/22 13:38	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		09/29/22 08:29	09/29/22 13:38	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/29/22 08:29	09/29/22 13:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			09/29/22 08:29	09/29/22 13:38	1
o-Terphenyl	92		70 - 130			09/29/22 08:29	09/29/22 13:38	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	graphy - S	oluble					

5.02

mg/Kg

504

Surrogate Summary

Client: Ensolum Job ID: 890-3086-1 Project/Site: SEMU BMT SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3063-A-1-D MS	Matrix Spike	108	100	
890-3063-A-1-E MSD	Matrix Spike Duplicate	100	108	
890-3086-1	HA02	111	103	
890-3086-2	HA02	112	102	
LCS 880-36328/1-A	Lab Control Sample	114	102	
LCSD 880-36328/2-A	Lab Control Sample Dup	115	105	
MB 880-36328/5-A	Method Blank	105	110	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

-			
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3086-1	HA02	77	81
890-3086-2	HA02	89	92
890-3099-A-1-E MS	Matrix Spike	88	85
890-3099-A-1-F MSD	Matrix Spike Duplicate	89	84
LCS 880-35652/2-A	Lab Control Sample	102	103
LCSD 880-35652/3-A	Lab Control Sample Dup	101	105
MB 880-35652/1-A	Method Blank	100	108

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-3086-1 SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36328/5-A

Matrix: Solid

Project/Site: SEMU BMT

Client: Ensolum

Analysis Batch: 36341

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36328

MB	MB	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/07/22 08:23	10/07/22 12:50	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/07/22 08:23	10/07/22 12:50	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	_	10/07/22 08:23	10/07/22 12:50	1
1,4-Difluorobenzene (Surr)	110		70 - 130		10/07/22 08:23	10/07/22 12:50	1

Lab Sample ID: LCS 880-36328/1-A

Matrix: Solid

Analysis Batch: 36341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36328

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07461		mg/Kg		75	70 - 130	
Toluene	0.100	0.08217		mg/Kg		82	70 - 130	
Ethylbenzene	0.100	0.08494		mg/Kg		85	70 - 130	
m-Xylene & p-Xylene	0.200	0.1722		mg/Kg		86	70 - 130	
o-Xylene	0.100	0.08846		mg/Kg		88	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-36328/2-A

Matrix: Solid

Analysis Batch: 36341

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36328

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1124	*1	mg/Kg		112	70 - 130	40	35	
Toluene	0.100	0.1167		mg/Kg		117	70 - 130	35	35	
Ethylbenzene	0.100	0.1188		mg/Kg		119	70 - 130	33	35	
m-Xylene & p-Xylene	0.200	0.2420		mg/Kg		121	70 - 130	34	35	
o-Xylene	0.100	0.1192		mg/Kg		119	70 - 130	30	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1.4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3063-A-1-D MS

Matrix: Solid

Analysis Batch: 36341

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36328

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U *1 F1	0.100	0.06254	F1	mg/Kg		62	70 - 130	
Toluene	< 0.00201	U F1 F2	0.100	0.04666	F1	mg/Kg		46	70 - 130	

QC Sample Results

Job ID: 890-3086-1 Client: Ensolum Project/Site: SEMU BMT SDG: Lea County NM

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

Lab Sample ID: 890-3063-A-1-D MS

Matrix: Solid Analysis Batch: 36341

Prep Batch: 36328 Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00201 U F1 F2 0.100 0.02857 F1 28 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00402 U F1 F2 0.201 0.05403 F1 mg/Kg 27 70 - 130 o-Xylene <0.00201 UF1F2 0.100 0.02669 F1 27 70 - 130 mg/Kg

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-3063-A-1-E MSD

Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36341

Prep Batch: 36328

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Sample Sample Spike MSD MSD RPD Result Qualifier Result Qualifier RPD Limit Analyte babbA Unit %Rec Limits 0.0998 Benzene <0.00201 U *1 F1 0.08491 mg/Kg 85 70 - 130 30 35 Toluene <0.00201 UF1F2 0.0998 0.06815 F1 F2 mg/Kg 68 70 - 130 37 35 Ethylbenzene <0.00201 UF1F2 0.0998 0.04339 F1 F2 43 70 - 130 41 35 mg/Kg 0.200 0.07834 F1 F2 m-Xylene & p-Xylene <0.00402 U F1 F2 mq/Kq 39 70 - 130 37 35 <0.00201 U F1 F2 0.0998 0.03992 F1 F2 40 70 - 130 40 o-Xylene mg/Kg

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

Lab Sample ID: MB 880-35652/1-A

Matrix: Solid

Analysis Batch: 35641

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

Prep Batch: 35652

мв мв Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 50.0 09/29/22 08:29 09/29/22 09:45 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 09/29/22 08:29 09/29/22 09:45 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 09/29/22 08:29 09/29/22 09:45 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	09/29/22 08:29	09/29/22 09:45	1
o-Terphenyl	108		70 - 130	09/29/22 08:29	09/29/22 09:45	1

Lab Sample ID: LCS 880-35652/2-A

Matrix: Solid

Analysis Batch: 35641

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

Prep Batch: 35652

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	951.3		mg/Kg		95	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	925.7		mg/Kg		93	70 - 130	
C10-C28)								

Job ID: 890-3086-1

SDG: Lea County NM

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

Lab Sample ID: LCS 880-35652/2-A

Lab Sample ID: 890-3099-A-1-E MS

Matrix: Solid

Client: Ensolum

Analysis Batch: 35641

Project/Site: SEMU BMT

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35652

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 102 70 - 130 o-Terphenyl 103 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35652

Lab Sample ID: LCSD 880-35652/3-A **Matrix: Solid** Analysis Batch: 35641

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1011 101 70 - 1306 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 927.4 93 mg/Kg 70 - 1300 20

C10-C28)

Matrix: Solid

Analysis Batch: 35641

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	105		70 - 130

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35652

Sample Sample MS MS Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics 215 998 1232 mg/Kg 102 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 250 998 1057 mg/Kg 81 70 - 130 C10-C28)

MS MS %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 88 o-Terphenyl 85 70 - 130

Lab Sample ID: 890-3099-A-1-F MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid**

Analysis Batch: 35641

Prep Type: Total/NA

Prep Batch: 35652

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics 215 999 1237 102 mg/Kg 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 250 999 1062 mg/Kg 81 70 - 130 20

C10-C28)

MSD MSD

Surrogate	%Recovery Q	ualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	84		70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

QC Sample Results

Client: Ensolum Job ID: 890-3086-1 Project/Site: SEMU BMT SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35685/1-A

Matrix: Solid

Analysis Batch: 35807

MB MB

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 09/30/22 11:56

Lab Sample ID: LCS 880-35685/2-A

Matrix: Solid

Analysis Batch: 35807

Spike LCS LCS %Rec Added %Rec Analyte Result Qualifier Unit D Limits Chloride 250 242.1 mg/Kg 97 90 - 110

Lab Sample ID: LCSD 880-35685/3-A

Matrix: Solid

Analysis Batch: 35807

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 243.5 mg/Kg 90 - 110

Lab Sample ID: 890-3085-A-1-C MS

Matrix: Solid

Analysis Batch: 35807

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Qualifier %Rec Result Unit Limits Chloride 245 249 477.6 90 - 110 mg/Kg

Lab Sample ID: 890-3085-A-1-D MSD

Matrix: Solid

Analysis Batch: 35807

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 249 245 479.5 mg/Kg 94 90 - 110 0 20

QC Association Summary

Client: Ensolum Job ID: 890-3086-1 Project/Site: SEMU BMT SDG: Lea County NM

GC VOA

Prep Batch: 36328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Total/NA	Solid	5035	
890-3086-2	HA02	Total/NA	Solid	5035	
MB 880-36328/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36328/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36328/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3063-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3063-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Total/NA	Solid	8021B	36328
890-3086-2	HA02	Total/NA	Solid	8021B	36328
MB 880-36328/5-A	Method Blank	Total/NA	Solid	8021B	36328
LCS 880-36328/1-A	Lab Control Sample	Total/NA	Solid	8021B	36328
LCSD 880-36328/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36328
890-3063-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	36328
890-3063-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36328

Analysis Batch: 36415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Total/NA	Solid	Total BTEX	
890-3086-2	HA02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Total/NA	Solid	8015B NM	35652
890-3086-2	HA02	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Total/NA	Solid	8015NM Prep	
890-3086-2	HA02	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Total/NA	Solid	8015 NM	
890-3086-2	HA02	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3086-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 35685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Soluble	Solid	DI Leach	
890-3086-2	HA02	Soluble	Solid	DI Leach	
MB 880-35685/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35685/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35685/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3085-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3085-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3086-1	HA02	Soluble	Solid	300.0	35685
890-3086-2	HA02	Soluble	Solid	300.0	35685
MB 880-35685/1-A	Method Blank	Soluble	Solid	300.0	35685
LCS 880-35685/2-A	Lab Control Sample	Soluble	Solid	300.0	35685
LCSD 880-35685/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35685
890-3085-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	35685
890-3085-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35685

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Date Received: 09/28/22 08:29

Client: Ensolum Job ID: 890-3086-1 Project/Site: SEMU BMT SDG: Lea County NM

Lab Sample ID: 890-3086-1 **Client Sample ID: HA02** Date Collected: 09/26/22 15:10

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36328	10/07/22 08:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36341	10/07/22 14:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36415	10/07/22 17:23	SM	EET MIC
Total/NA	Analysis	8015 NM		1			35764	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35652	09/29/22 08:29	DM	EET MIC
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 13:17	SM	EET MIC
Soluble	Leach	DI Leach			4.96 g	50 mL	35685	09/29/22 12:08	SMC	EET MIC
Soluble	Analysis	300.0		1			35807	09/30/22 12:30	СН	EET MID

Client Sample ID: HA02 Lab Sample ID: 890-3086-2

Date Collected: 09/26/22 15:15 Matrix: Solid

Date Received: 09/28/22 08:29

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	36328	10/07/22 08:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36341	10/07/22 15:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36415	10/07/22 17:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			35764	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35652	09/29/22 08:29	DM	EET MIC
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 13:38	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	35685	09/29/22 12:08	SMC	EET MIC
Soluble	Analysis	300.0		1			35807	09/30/22 12:35	CH	EET MIC

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3086-1
Project/Site: SEMU BMT SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report by	it the leberatory is not cortifi	ed by the governing authority. This list ma	arrimalizada amaliztaa farr
the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list his	ay include arialytes for
0 ,	• •	Matrix	Analyte	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3086-1 SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3086-1

SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Dep
890-3086-1	HA02	Solid	09/26/22 15:10	09/28/22 08:29	1
890-3086-2	HA02	Solid	09/26/22 15:15	09/28/22 08:29	2

Relinquished by: (Signature)

Received by: (Signature)

98-38 Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020 2

eurofins 👺 **Environment Testing**

Phone:

Project Manager:

Bill to: (if different) Company Name:

Josh Adams

Ensolum Josh Adams

Sampler's Name:

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

-)					1	ł								T			
Company Name:	Ensolum		0	Company Name:	ne:	Eng	Ensolum							ס	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐	☐ Brownfields ☐ RRC ☐ Superfund ☐	
	3122 National Parks Hwy	wy.	F	Address:		312	2 Nati	onal P	3122 National Parks Hwy	Ş				S	State of Project:	l]	
te ZIP:	Carlsbad, NM 88220		0	City, State ZIP	.Ÿ	Car	Isbad,	Carlsbad, NM 88220	3220					Z.	porting: Level II Level III	Reporting: Level III ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐	
	3035178437		Email:	Email: jadams@ensolum.com and kjennings@ensolum.com	solum	com	and ki	ennin	gs@e	nsolu	m.con			٥	Deliverables: EDD	ADaPT Other:	
Project Name:	SEMU BMT		Turn /	Turn Around							Ą	ANALYSIS RE	SIS R	QUEST	ST	Preservative Codes	
Project Number:	03D2057013		✓ Routine	Rush	Pres.	e .			-			-				None: NO DI Water: H ₂ O	
Project Location:	Lea County, NM		Due Date:	5 Day TAT	Ļ					_			_			Coal: Cool MeOH: Me	
Sampler's Name:	Liz Cheli		AT starts the	TAT starts the day received by	Ž			-			_		-	_			
PO #:	N/A		the lab, if recei	the lab, if received by 4:30pm	Н			+	-							H ₂ S0 ₄ : H ₂ NaOH: Na	
SAMPLE RECEIPT	Temp Blank:	No Sey	Wet Ice:	(Yes No	nete	.0)						Ī				H₃PO₄: HP	
Samples Received Intact:	act: (es) No	Thermometer ID:	ID:	FOOW	ıran	300										NaHSO ₄ : NABIS	
Cooler Custody Seals:	Yes No N	Correction Factor:	ctor:	6.0	Pa	PA:										Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:	Yes No "	N/A Temperature Reading:	Reading:	1.6	L	S (E					89	890-3086 Chain	6 Cha		of Custody	Zn Acetate+NaOH: Zn	
Total Containers:		Corrected Temperature:	nperature:	- 4		RIDE	015)				1					NaOH+Ascorbic Acid: SAPC	
Sample Identification	ification Matrix	Date Sampled	Time Sampled	Depth Grab/	Grab/ # of Comp Cont	CHLO	TPH (8	BTEX				_				Sample Comments	
HA02	S	9/26/22	1510	1' Comp	5	×	×	×	-		-	\vdash	-	\vdash		Incident ID:	
HA02	S	9/26/22	1515	2' C omp	<u>ਰ</u> 1	×	×	×	_		_	_	-	L		NAPP2217430297	
				24	-			_					_	_		Cost Code - GA130323	
				ক								_	_	-		AFE000000000471	
				G										-			
					-	_		-	-	-	_	-		-			
					-	\vdash	+	+	-	╁	+	+	╁	+-			
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					-	\vdash		-	-	 -	-	\vdash	-	\vdash			
					-	-	\vdash	H	-	-	-	-	H	\vdash			
Total 200.7 / 6010	10 200.8 / 6020:	8R	CRA 13PF	8RCRA 13PPM Texas 11 Al Sb As	11 2	Sb		Be	Ba Be B Cd Ca	Ca	လ လ	Cr Co Cu Fe	Fe Pb	Mg	Mn Mo Ni K Se Ag	SiO ₂ Na Sr Tl Sn U V Zn	
Circle Method(s) an	ĕ		TCLP / SP	TCLP / SPLP 6010: 8RCRA	RCR/	Sb	As E	За Ве	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo	Cr C	ပ်	Pb N	'n M		e Ag TIU	Hg: 1631 / 245.1 / 7470 / 7471	
lotice: Signature of this d	votice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractor	of samples consti	tutes a valid pu	ırchase order fr	om clier	rt comp	any to	urofina	Xenco,	its affil	ates an	d subc	ntracto	7. 7.). It assigns standard terms and conditions	tions	
if service. Eurofins Xenco if Eurofins Xenco. A mini	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 of Eurofins Xenco, but not analyzed. These term of Eurofins Xenco, but not analyzed. These term	st of samples and applied to each p	shall not assur roject and a ch	me any respons arge of \$5 for ea	ibility fo	r any lo pie sub	sses or mitted t	o Eurof	es incu	rred by	the clie	nt if suc yzed. Ti	h losse lese tel	ms will	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 Eurofine Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ontrol gotlated.	

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Page

Work Order Comments

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Orde	
No	

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3086-1

SDG Number: Lea County NM

Login Number: 3086 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.	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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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3086-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 09/29/22 11:12 AM

Login Number: 3086 List Number: 2

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	
s 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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Released to Imaging: 1/4/2023 11:44:06 AM

Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3085-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/10/2022 10:08:04 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3085-1
SDG: 03D2057013

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Definitions/Glossary

Job ID: 890-3085-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

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 Percent Recovery %R CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid DER Duplicate Error Ratio (normalized absolute difference) **Dilution Factor**

Dil Fac

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" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML 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)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Job ID: 890-3085-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Job ID: 890-3085-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3085-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36446 and analytical batch 880-36452 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: HA03 (890-3085-1). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

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

Eurofins Carlsbad

10/10/2022

Matrix: Solid

Lab Sample ID: 890-3085-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3085-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Client Sample ID: HA03

Date Collected: 09/27/22 09:55 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 12:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 12:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 12:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/08/22 11:42	10/09/22 12:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 12:57	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/08/22 11:42	10/09/22 12:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	39	S1-	70 - 130			10/08/22 11:42	10/09/22 12:57	1
1,4-Difluorobenzene (Surr)	76		70 - 130			10/08/22 11:42	10/09/22 12:57	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/10/22 10:43	1
Method: SW846 8015 NM - Diese			GC)					
		ics (DRO) (GC)	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte			•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 09/30/22 09:27	
	Result 91.2	Qualifier	RL 50.0		<u>D</u>	Prepared		
Analyte Total TPH	Result 91.2 sel Range Orga	Qualifier	RL 50.0		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result 91.2 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 50.0	mg/Kg	=		09/30/22 09:27	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10	Result 91.2 sel Range Orga Result	Qualifier nics (DRO) Qualifier	RL 50.0 (GC)	mg/Kg	=	Prepared	09/30/22 09:27 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 91.2 sel Range Orga Result < 50.0 91.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg	=	Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:00 09/29/22 14:00	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 91.2 sel Range Orga Result < 50.0	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg	=	Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:00	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 91.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg	=	Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared	Analyzed 09/29/22 14:00 09/29/22 14:00 09/29/22 14:00 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 91.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg	=	Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:00 09/29/22 14:00	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result 91.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg	=	Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared	Analyzed 09/29/22 14:00 09/29/22 14:00 09/29/22 14:00 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result 91.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg	=	Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:00 09/29/22 14:00 Analyzed 09/29/22 14:00	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result 91.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg	=	Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 14:00 09/29/22 14:00 Analyzed 09/29/22 14:00	•

Client Sample ID: HA03

Date Collected: 09/27/22 10:00 Date Received: 09/28/22 08:29

Sample Depth: 2

Method: SW846 8021B - Volatile Organic Compounds (GC) Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac Benzene <0.00199 U 0.00199 mg/Kg 10/08/22 11:42 10/09/22 13:17 Toluene <0.00199 U 0.00199 mg/Kg 10/08/22 11:42 10/09/22 13:17 Ethylbenzene <0.00199 U 0.00199 mg/Kg 10/08/22 11:42 10/09/22 13:17 <0.00398 U 0.00398 10/08/22 11:42 10/09/22 13:17 m-Xylene & p-Xylene mg/Kg o-Xylene <0.00199 U 0.00199 10/08/22 11:42 10/09/22 13:17 mg/Kg Xylenes, Total <0.00398 U 0.00398 10/08/22 11:42 10/09/22 13:17 mg/Kg Qualifier Limits Prepared Surrogate %Recovery Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 109 70 - 130 10/08/22 11:42 10/09/22 13:17

Eurofins Carlsbad

Matrix: Solid

Lab Sample ID: 890-3085-2

2

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4.0

4.6

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Matrix: Solid

Lab Sample ID: 890-3085-2

09/30/22 12:25

Client Sample Results

 Client: Ensolum
 Job ID: 890-3085-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Client Sample ID: HA03

Date Collected: 09/27/22 10:00 Date Received: 09/28/22 08:29

Sample Depth: 2

Chloride

73							
		70 - 130			10/08/22 11:42	10/09/22 13:17	1
al BTEX Cald	ulation						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00398	U	0.00398	mg/Kg			10/10/22 10:43	1
ange Organ	ics (DRO) (GC)					
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
157		50.0	mg/Kg			09/30/22 09:27	1
		RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Range Orga	nics (DRO)	(GC)					
<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 14:21	1
157		50.0	mg/Kg		09/29/22 08:29	09/29/22 14:21	1
			0 0				
<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 14:21	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
102		70 - 130			09/29/22 08:29	09/29/22 14:21	1
97		70 - 130			09/29/22 08:29	09/29/22 14:21	1
	<0.00398 Result 157 Range Organ Result <p><50.0</p> 157 <50.0 %Recovery 102	Result Qualifier 157	Control Cont	<0.00398 U 0.00398 mg/Kg Range Organics (DRO) (GC) Result 157 So.0 Unit mg/Kg Range Organics (DRO) (GC) Result Qualifier RL Unit mg/Kg <50.0	<0.00398	<0.00398 U 0.00398 mg/Kg Cange Organics (DRO) (GC) Result 157 Result 50.0 Unit mg/Kg D Prepared Range Organics (DRO) (GC) Result Qualifier RL Unit mg/Kg D Prepared <50.0 U 50.0 mg/Kg	<0.00398 U 0.00398 mg/Kg 10/10/22 10:43 Cange Organics (DRO) (GC) Result Qualifier RL Unit D Prepared Analyzed 157 50.0 mg/Kg 09/30/22 09:27 Range Organics (DRO) (GC) Result Qualifier RL Unit D Prepared Analyzed <50.0

4.96

mg/Kg

201

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Surrogate Summary

Client: Ensolum Job ID: 890-3085-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20114-A-1-B MS	Matrix Spike	85	70	
880-20114-A-1-C MSD	Matrix Spike Duplicate	115	98	
890-3085-1	HA03	39 S1-	76	
890-3085-2	HA03	109	73	
LCS 880-36446/1-A	Lab Control Sample	96	97	
LCSD 880-36446/2-A	Lab Control Sample Dup	99	97	
MB 880-36446/5-A	Method Blank	103	82	
MB 880-36448/5-A	Method Blank	90	86	
Surrogate Legend				
BFB = 4-Bromofluorobenze	ene (Surr)			

DFBZ = 1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Accept		
		1001	OTPH1			
Lab Sample ID	Client Sample ID	(70-130)	(70-130)			
890-3085-1	HA03	76	77			
890-3085-2	HA03	102	97			
890-3099-A-1-E MS	Matrix Spike	88	85			
890-3099-A-1-F MSD	Matrix Spike Duplicate	89	84			
LCS 880-35652/2-A	Lab Control Sample	102	103			
LCSD 880-35652/3-A	Lab Control Sample Dup	101	105			
MB 880-35652/1-A	Method Blank	100	108			

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3085-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36446/5-A

Matrix: Solid Analysis Batch: 36452 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36446

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 11:42	10/09/22 05:59	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	10/08/22 11:42	10/09/22 05:59	1
1,4-Difluorobenzene (Surr)	82		70 - 130	10/08/22 11:42	10/09/22 05:59	1

Lab Sample ID: LCS 880-36446/1-A

Matrix: Solid

Analysis Batch: 36452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36446

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09804	-	mg/Kg		98	70 - 130	
Toluene	0.100	0.1009		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.09618		mg/Kg		96	70 - 130	
m-Xylene & p-Xylene	0.200	0.2027		mg/Kg		101	70 - 130	
o-Xylene	0.100	0.1031		mg/Kg		103	70 - 130	
The state of the s								

LCS LCS

Surrogate	%Recovery Q	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-36446/2-A

Matrix: Solid

Analysis Batch: 36452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36446

RPD LCSD LCSD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Limit Benzene 0.100 0.09817 mg/Kg 98 70 - 130 0 35 Toluene 0.100 0.1022 mg/Kg 102 70 - 130 35 Ethylbenzene 0.100 0.09714 mg/Kg 97 70 - 130 35 0.200 0.2082 m-Xylene & p-Xylene mg/Kg 104 70 - 130 35 0.100 0.1073 107 o-Xylene mg/Kg 70 - 130 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1.4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-20114-A-1-B MS

Matrix: Solid

Analysis Batch: 36452

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36446

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1	0.0998	0.02036	F1	mg/Kg		20	70 - 130	
Toluene	< 0.00201	U F1	0.0998	0.03829	F1	mg/Kg		38	70 - 130	

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QC Sample Results

Client: Ensolum Job ID: 890-3085-1
Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: 880-20114-A-1-B MS

Client Sample ID: Matrix Spike
Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 36452 Prep Batch: 36446

	Sample	Sample	Spike	IVIS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ethylbenzene	<0.00201	U F1	0.0998	0.03986	F1	mg/Kg		40	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.07303	F1	mg/Kg		37	70 - 130
o-Xylene	<0.00201	U F1	0.0998	0.03911	F1	mg/Kg		39	70 - 130

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 85
 70 - 130

 1,4-Difluorobenzene (Surr)
 70
 70 - 130

Lab Sample ID: 880-20114-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid
Analysis Batch: 36452

Prep Type: Total/NA
Prep Batch: 36446

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F1	0.100	0.01643	F1	mg/Kg		16	70 - 130	21	35
Toluene	<0.00201	U F1	0.100	0.03029	F1	mg/Kg		30	70 - 130	23	35
Ethylbenzene	<0.00201	U F1	0.100	0.03128	F1	mg/Kg		31	70 - 130	24	35
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.06815	F1	mg/Kg		34	70 - 130	7	35
o-Xylene	<0.00201	U F1	0.100	0.03843	F1	mg/Kg		38	70 - 130	2	35

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 115
 70 - 130

 1,4-Difluorobenzene (Surr)
 98
 70 - 130

Lab Sample ID: MB 880-36448/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 36452

MR MR

	IND	INID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 12:14	10/08/22 19:16	1

	MB I	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	10/08/22 12:14	10/08/22 19:16	1
1,4-Difluorobenzene (Surr)	86		70 - 130	10/08/22 12:14	10/08/22 19:16	1

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

Lab Sample ID: MB 880-35652/1-A

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35652

Analysis Batch: 35641

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Gasoline Range Organics
 <50.0</td>
 U
 50.0
 mg/Kg
 09/29/22 08:29
 09/29/22 09:45
 1

 (GRO)-C6-C10
 (GRO)-C6-C10

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Client: Ensolum Job ID: 890-3085-1
Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: MB 880-35652/1-A

Matrix: Solid

Analysis Batch: 35641

MB MB

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35652

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 09:45	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 09:45	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			09/29/22 08:29	09/29/22 09:45	1
o-Terphenyl	108		70 - 130			09/29/22 08:29	09/29/22 09:45	1

Lab Sample ID: LCS 880-35652/2-A

Matrix: Solid

Analysis Batch: 35641

Spike

LCS LCS

Analyte

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

Prep Batch: 35652

%Rec

Added

Added

Result Qualifier Unit

D %Rec Limits

Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics		1000	951.3		mg/Kg		95	70 - 130	
(GRO)-C6-C10									
Diesel Range Organics (Over		1000	925.7		mg/Kg		93	70 - 130	
C10-C28)									
	100 100								

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 102
 70 - 130

 o-Terphenyl
 103
 70 - 130

Lab Sample ID: LCSD 880-35652/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Applysis Patch: 35644

Analysis Batch: 35641 Prep Batch: 35652

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	1011		mg/Kg		101	70 - 130	6	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	927.4		mg/Kg		93	70 - 130	0	20	
C10-C28)										

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-3099-A-1-E MS

Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 35641 Prep Batch: 35652

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	215		998	1232		mg/Kg		102	70 - 130	
Diesel Range Organics (Over	250		998	1057		mg/Kg		81	70 - 130	

C10-C28)			
	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-3099-A-1-F MSD

Client: Ensolum Job ID: 890-3085-1 Project/Site: SEMU BMT SDG: 03D2057013

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35652

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	215		999	1237		mg/Kg		102	70 - 130	0	20
(GRO)-C6-C10											
Diesel Range Organics (Over	250		999	1062		mg/Kg		81	70 - 130	0	20
040,000)											

C10-C28)

Matrix: Solid

Analysis Batch: 35641

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	84		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35685/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35807

мв мв

	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
l	Chloride	<5.00 U	5.00	mg/Kg			09/30/22 11:56	1

Lab Sample ID: LCS 880-35685/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35807

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	242.1	-	mg/Kg		97	90 - 110	

Lab Sample ID: LCSD 880-35685/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35807

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	243.5		mg/Kg		97	90 - 110	1	20	

Lab Sample ID: 890-3085-1 MS **Client Sample ID: HA03 Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35807

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	245		249	477.6		ma/Ka	_	93	90 110	

Lab Sample ID: 890-3085-1 MSD

Matrix: Solid

Analysis Batch: 35807

Analysis Batch. 00007												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	245		249	479.5		ma/Ka		94	90 - 110		20	

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Client Sample ID: HA03

Prep Type: Soluble

QC Association Summary

Client: Ensolum Job ID: 890-3085-1 Project/Site: SEMU BMT SDG: 03D2057013

GC VOA

Prep Batch: 36446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Total/NA	Solid	5035	
890-3085-2	HA03	Total/NA	Solid	5035	
MB 880-36446/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36446/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36446/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20114-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-20114-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 36448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36448/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Total/NA	Solid	8021B	36446
890-3085-2	HA03	Total/NA	Solid	8021B	36446
MB 880-36446/5-A	Method Blank	Total/NA	Solid	8021B	36446
MB 880-36448/5-A	Method Blank	Total/NA	Solid	8021B	36448
LCS 880-36446/1-A	Lab Control Sample	Total/NA	Solid	8021B	36446
LCSD 880-36446/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36446
880-20114-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	36446
880-20114-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36446

Analysis Batch: 36564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Total/NA	Solid	Total BTEX	
890-3085-2	HA03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Total/NA	Solid	8015B NM	35652
890-3085-2	HA03	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

Released to Imaging: 1/4/2023 11:44:06 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Total/NA	Solid	8015NM Prep	
890-3085-2	HA03	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3085-1
SDG: 03D2057013

GC Semi VOA

Analysis Batch: 35765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Total/NA	Solid	8015 NM	
890-3085-2	HA03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Soluble	Solid	DI Leach	
890-3085-2	HA03	Soluble	Solid	DI Leach	
MB 880-35685/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35685/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35685/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3085-1 MS	HA03	Soluble	Solid	DI Leach	
890-3085-1 MSD	HA03	Soluble	Solid	DI Leach	

Analysis Batch: 35807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3085-1	HA03	Soluble	Solid	300.0	35685
890-3085-2	HA03	Soluble	Solid	300.0	35685
MB 880-35685/1-A	Method Blank	Soluble	Solid	300.0	35685
LCS 880-35685/2-A	Lab Control Sample	Soluble	Solid	300.0	35685
LCSD 880-35685/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35685
890-3085-1 MS	HA03	Soluble	Solid	300.0	35685
890-3085-1 MSD	HA03	Soluble	Solid	300.0	35685

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Lab Chronicle

Client: Ensolum Job ID: 890-3085-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA03

Date Received: 09/28/22 08:29

Lab Sample ID: 890-3085-1 Date Collected: 09/27/22 09:55 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36446	10/08/22 11:42	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36452	10/09/22 12:57	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36564	10/10/22 10:43	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35765	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 14:00	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	35685	09/29/22 12:08	SMC	EET MID
Soluble	Analysis	300.0		1			35807	09/30/22 12:11	CH	EET MID

Client Sample ID: HA03 Lab Sample ID: 890-3085-2

Date Collected: 09/27/22 10:00 Matrix: Solid

Date Received: 09/28/22 08:29

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36446	10/08/22 11:42	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36452	10/09/22 13:17	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36564	10/10/22 10:43	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35765	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 14:21	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	35685	09/29/22 12:08	SMC	EET MID
Soluble	Analysis	300.0		1			35807	09/30/22 12:25	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3085-1
SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report by	it the leberatory is not contiffi	iad butba gaugeming authority. This list ma	
the agency does not of	' '	it the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for v
,	' '	Matrix	Analyte	ay include analytes for v
the agency does not of	fer certification.	•	, , ,	ay include analytes for v

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Method Summary

Client: Ensolum Job ID: 890-3085-1
Project/Site: SEMU BMT SDG: 03D2057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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

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Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3085-1

SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	0
890-3085-1	HA03	Solid	09/27/22 09:55	09/28/22 08:29	1
890-3085-2	HA03	Solid	09/27/22 10:00	09/28/22 08:29	2

Chain of Custody

ouston, TX (281) 240-4200, Dallas, TX (214) 902-0300
and, TX (432) 704-5440, San Antonio, TX (210) 509-3334
Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
hhe NM (575) 392-7550 Carlehad NM (575) 988-3199

	Xenco	Xenco	ő	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	s, NM (32) 704 (915) 58 575) 393	-5440, t 85-3443 2-7550,	San Ani Lubbo Carlsba	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-333 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	806) 79 575) 98	4-1296	4		2	WORK Older No.	_
														WWW	www.xenco.com	Page of
Project Manager:	Josh Adams		B.	Bill to: (if different)	5	Josh Adams	dams							×	Work Order Comments	nments
Company Name:	Ensolum		Co	Company Name:	, v	Ensolum	ä						<u></u>	ogram: UST/PST 🗌	PRP Brownfie	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund [
Address:	3122 National Parks Hwy.	Hwy.	Ad	Address:		3122	3122 National Parks Hwy	Park	s Hwy.				St	State of Project:		
City, State ZIP:	Carlsbad, NM 88220		Cit	City, State ZIP:		Carlsb	Carlsbad, NM 88220	1 8822	0				₽.	Reporting: Level II	wel III PST/U.	IST TRRP Level IV
Phone:	3035178437		Email: jac	Email: Jadams@ensolum.com and kjennings@ensolum.com	lum.co	om and	d kjenr	nings(c	ນensol	um.co	B		٥	Deliverables: EDD	ADaPT 🗆	Other:
Project Name:	SEMU BMT	TN	Turn Around	ound						>	ANALYSIS R	SIS R	EQUEST	ST		Preservative Codes
Project Number:	03D2057013		☑ Routine □	Rush	Pres. Code										NC	None: NO DI Water: H ₂ O
Project Location:	Lea County, NM		Due Date:	5 Day TAT											00	Cool: Cool MeOH: Me
Sampler's Name:	Liz Cheli		nec	y received by								_	_	_		HCL: HC HNO3: HN
PO #:	N/A		the lab, if received by 4:30pm	by 4:30pm	rs					=					H ₂	H ₂ S0 ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	IPT Temp Blank:	Wes No V	Wet Ice: (Yes No	nete	.0)									.Н ₃	H₃PO₄: HP
Samples Received Intact:		Thermometer ID:	4	FORMUT	ıran	300			_						Z	NaHSO ₄ : NABIS
Cooler Custody Seals:	ils: Yes No (NI)	Correction Factor:		0,0	Pa	PA:				=					Ž	Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	als: Yes No NA	Temperature Reading:	eading:	9:1		ES (E	5)	21		88	890-3085 Cha		n of C	in of Custody	Zn	Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC
Sample Identification	ntification Matrix			Depth Comp	# of Cont	CHLORI	TPH (80	BTEX (8			-					Sample Comments
на03)3 S	9/27/22	955 1'	Comp	1	×	×	×							Īn	Incident ID:
HA03)3 S	9/27/22	1000 2'	gomp.	_	×	×	×			_				z	NAPP2217430297
					7										CC	Cost Code - GA130323
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Total 200.7 / 6010	010 200.8 / 6020:	8RCRA	RA 13PPM	Texas 11	≥	Sb As	As Ba Be	e B Cd	cd ca	Cr Cr	Cr Co Cu	Fe	Pb Mg	Mn Mo Ni	K Se Ag SiO ₂ Na S	Sr Ti Sn U V Zn
Circle Method(s) a	Circle Method(s) and Metal(s) to be analyzed		CLP / SPL	TCLP / SPLP 6010: 8RCRA	CRA	Sb A	s Ba	Be C	d Cr (იე იე	Pb -	Yn M	N	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 24	Hg: 1631 / 245.1 / 7470 / 7471
Notice: Signature of this of service. Eurofins Xen	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	nt of samples constitu	tes a valid purc	hase order from	client c	ompany ny losse	to Euro	fins Xen	co, its af	filiates a y the cli	nd subc	ontracti ch losse	ors. It as	ssigns standard terms and te to circumstances beyon	d the control	
or Eurorins Xenco. A mir	of Euronis Xenco. A minimum charge of \$86.00 will be applied to each project and a charge of \$5 for each sample submitted to Euronis Xenco, but not analyzed. These terms will be eliminated unless previously instrument.	be applied to each pro	ject and a charg	je of \$5 for each	sample	Submix	ed to Eu	Torins A	enco, ou	C not and	siyzed.	nese te	IIIM WIII	be ellipiced dillege hi cald	usly negotiated.	
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Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3085-1

SDG Number: 03D2057013

Login Number: 3085 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.	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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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3085-1 SDG Number: 03D2057013

Login Number: 3085 **List Source: Eurofins Midland** List Number: 2

List Creation: 09/29/22 11:12 AM

Creator: Rodriguez, Leticia

<6mm (1/4").

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	N/A	

Eurofins Carlsbad Released to Imaging: 1/4/2023 11:44:06 AM





Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3088-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

10/10/2022 10:08:34 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Have a Question?

EOL

.....LINKS

Review your project results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 1/4/2023 11:44:06 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3088-1
SDG: 03D2057013

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Definitions/Glossary

Job ID: 890-3088-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

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

Percent Recovery %R 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" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML 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

Quality Control RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

Eurofins Carlsbad

QC

Case Narrative

Client: Ensolum Project/Site: SEMU BMT

Job ID: 890-3088-1

SDG: 03D2057013

Job ID: 890-3088-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3088-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36446 and analytical batch 880-36452 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: HA04 (890-3088-2). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

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

Matrix: Solid

Lab Sample ID: 890-3088-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3088-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Client Sample ID: HA04

Date Collected: 09/27/22 10:05 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/08/22 11:42	10/09/22 13:38	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/08/22 11:42	10/09/22 13:38	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/08/22 11:42	10/09/22 13:38	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/08/22 11:42	10/09/22 13:38	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/08/22 11:42	10/09/22 13:38	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/08/22 11:42	10/09/22 13:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			10/08/22 11:42	10/09/22 13:38	1
1,4-Difluorobenzene (Surr)	71		70 - 130			10/08/22 11:42	10/09/22 13:38	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/10/22 10:43	1
Method: SW846 8015 NM - Diese Analyte			•	Unit	n	Prepared	Analyzed	Dil Fac
Analyte	Result	ics (DRO) (C	RL	Unit ma/Ka	<u>D</u>	Prepared	Analyzed 09/30/22 09:27	
Analyte Total TPH	Result 430	Qualifier	49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 09/30/22 09:27	
Analyte Total TPH Method: SW846 8015B NM - Dies	Result 430 sel Range Orga	Qualifier nics (DRO)	RL 49.9	mg/Kg		<u> </u>	09/30/22 09:27	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result 430 sel Range Orga Result	Qualifier nics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg	<u>D</u>	Prepared	09/30/22 09:27 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 430 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 49.9	mg/Kg		<u> </u>	09/30/22 09:27	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 430 sel Range Orga Result	Qualifier nics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg		Prepared	09/30/22 09:27 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result 430 sel Range Orga Result Result <49.9	Qualifier nics (DRO) Qualifier	RL 49.9 (GC) RL 49.9	mg/Kg Unit mg/Kg		Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 16:09	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 430 sel Range Orga Result <49.9 351	Qualifier nics (DRO) Qualifier	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 16:09 09/29/22 16:09	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 430 sel Range Orga Result <49.9 351 79.0	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 16:09 09/29/22 16:09	Dil Fac 1 1 Dil Fac Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result 430 sel Range Orga Result <49.9 351 79.0 %Recovery	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared	Analyzed 09/29/22 16:09 09/29/22 16:09 09/29/22 16:09 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result 430	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 16:09 09/29/22 16:09 Analyzed 09/29/22 16:09	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result 430	Qualifier nics (DRO) Qualifier U	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 16:09 09/29/22 16:09 Analyzed 09/29/22 16:09	1 Dil Fac

Client Sample ID: HA04

Date Collected: 09/27/22 10:10 Date Received: 09/28/22 08:29

Date Received. 05/20/22 00:20

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/08/22 11:42	10/09/22 13:59	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/08/22 11:42	10/09/22 13:59	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/08/22 11:42	10/09/22 13:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/08/22 11:42	10/09/22 13:59	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/08/22 11:42	10/09/22 13:59	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/08/22 11:42	10/09/22 13:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	42	S1-	70 - 130			10/08/22 11:42	10/09/22 13:59	

Eurofins Carlsbad

Lab Sample ID: 890-3088-2

Matrix: Solid

2

3

4

6

10

12

Matrix: Solid

Lab Sample ID: 890-3088-2

09/30/22 01:12

Client Sample Results

 Client: Ensolum
 Job ID: 890-3088-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Client Sample ID: HA04

Date Collected: 09/27/22 10:10 Date Received: 09/28/22 08:29

Sample Depth: 2

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	73		70 - 130			10/08/22 11:42	10/09/22 13:59	
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/10/22 10:43	1
Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	236		50.0	mg/Kg			09/30/22 09:27	1
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Die	sel Range Orga	nics (DRO)	(GC)					
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 16:30	1
(GRO)-C6-C10								
Diesel Range Organics (Over	236		50.0	mg/Kg		09/29/22 08:29	09/29/22 16:30	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	П	50.0	mg/Kg		09/29/22 08:29	09/29/22 16:30	,
On Range Organios (Over 020-000)	400.0	O	00.0	mg/rtg		03/23/22 00.23	03/23/22 10:00	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130			09/29/22 08:29	09/29/22 16:30	
o-Terphenyl	78		70 - 130			09/29/22 08:29	09/29/22 16:30	1

5.01

mg/Kg

237

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3088-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recove
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20114-A-1-B MS	Matrix Spike	85	70	
880-20114-A-1-C MSD	Matrix Spike Duplicate	115	98	
890-3088-1	HA04	110	71	
890-3088-2	HA04	42 S1-	73	
LCS 880-36446/1-A	Lab Control Sample	96	97	
LCSD 880-36446/2-A	Lab Control Sample Dup	99	97	
MB 880-36446/5-A	Method Blank	103	82	
MB 880-36448/5-A	Method Blank	90	86	

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 Limit
		1CO1	OTPH1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3088-1	HA04	74	73	
390-3088-2	HA04	79	78	
390-3099-A-1-E MS	Matrix Spike	88	85	
390-3099-A-1-F MSD	Matrix Spike Duplicate	89	84	
.CS 880-35652/2-A	Lab Control Sample	102	103	
_CSD 880-35652/3-A	Lab Control Sample Dup	101	105	
MB 880-35652/1-A	Method Blank	100	108	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum Job ID: 890-3088-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36446/5-A

Lab Sample ID: LCS 880-36446/1-A

Matrix: Solid

o-Xylene

Matrix: Solid Analysis Batch: 36452 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36446

				9
MB	MB			

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 11:42	10/09/22 05:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 11:42	10/09/22 05:59	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	10/08/22 11:42	10/09/22 05:59	1
1 4-Difluorobenzene (Surr)	82		70 - 130	10/08/22 11:42	10/09/22 05:59	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36446

Analysis Batch: 36452 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09804 mg/Kg 98 70 - 130 Toluene 0.100 0.1009 mg/Kg 101 70 - 130 0.100 0.09618 Ethylbenzene mg/Kg 96 70 - 130 0.200 0.2027 70 - 130 m-Xylene & p-Xylene mg/Kg 101

0.1031

mg/Kg

0.100

LCS LCS

Surrogate	%Recovery Qualifi	er Limits
4-Bromofluorobenzene (Surr)	96	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-36446/2-A

Analysis Batch: 36452

Prep Type: Total/NA Prep Batch: 36446

70 - 130

103

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09817		mg/Kg		98	70 - 130	0	35	
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	1	35	
Ethylbenzene	0.100	0.09714		mg/Kg		97	70 - 130	1	35	
m-Xylene & p-Xylene	0.200	0.2082		mg/Kg		104	70 - 130	3	35	
o-Xylene	0.100	0.1073		mg/Kg		107	70 - 130	4	35	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 880-20114-A-1-B MS

Matrix: Solid

Analysis Batch: 36452

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

Prep Batch: 36446

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1	0.0998	0.02036	F1	mg/Kg		20	70 - 130	
Toluene	<0.00201	U F1	0.0998	0.03829	F1	mg/Kg		38	70 - 130	

m-Xylene & p-Xylene

1,4-Difluorobenzene (Surr)

o-Xylene

QC Sample Results

Job ID: 890-3088-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: 880-20114-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36452

0.200

0.0998

70 - 130

Prep Batch: 36446 Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D <0.00201 U F1 0.0998 0.03986 F1 40 70 - 130 Ethylbenzene mg/Kg

0.07303 F1

0.03911 F1

mg/Kg

mg/Kg

37

39

70 - 130

70 - 130

MS MS Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 85

<0.00402 U F1

<0.00201 UF1

70

Lab Sample ID: 880-20114-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36452 Prep Batch: 36446

Sample Sample Spike MSD MSD RPD Result Qualifier %Rec RPD Limit Analyte babbA Result Qualifier Limits Unit D Benzene <0.00201 U F1 0.100 0.01643 F1 mg/Kg 16 70 - 130 21 35 Toluene <0.00201 UF1 0.100 0.03029 F1 mg/Kg 30 70 - 130 23 35 Ethylbenzene UF1 0.100 0.03128 F1 31 70 - 130 24 35 < 0.00201 mg/Kg m-Xylene & p-Xylene < 0.00402 UF1 0.201 0.06815 F1 mg/Kg 34 70 - 130 35 0.100 0.03843 F1 38 70 - 130 2 o-Xylene <0.00201 UF1 mg/Kg

MSD MSD Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 115 70 - 130 1,4-Difluorobenzene (Surr) 98

Lab Sample ID: MB 880-36448/5-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 36452 Prep Batch: 36448 MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:14	10/08/22 19:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 12:14	10/08/22 19:16	1

	IVIB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	10/08/22 12:14	10/08/22 19:16	1
1,4-Difluorobenzene (Surr)	86		70 - 130	10/08/22 12:14	10/08/22 19:16	1

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

Lab Sample ID: MB 880-35652/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 35641 Prep Batch: 35652 MB MB

Result Qualifier RL Unit Prepared <50.0 U 50.0 09/29/22 08:29 09/29/22 09:45 Gasoline Range Organics mg/Kg (GRO)-C6-C10

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o-Terphenyl

o-Terphenyl

Client: Ensolum Job ID: 890-3088-1 Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: MB 880-35652/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 35652 Analysis Batch: 35641

	MR	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 09:45	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 09:45	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			09/29/22 08:29	09/29/22 09:45	1
o-Terphenyl	108		70 - 130			09/29/22 08:29	09/29/22 09:45	1

Lab Sample ID: LCS 880-35652/2-A Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA Analysis Batch: 35641 Prep Batch: 35652 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 951.3 95 70 - 130 mg/Kg (GRO)-C6-C10 1000 925.7 Diesel Range Organics (Over mg/Kg 93 70 - 130 C10-C28) LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 102

Lab Sample ID: LCSD 880-35652/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Prep Batch: 35652 Analysis Batch: 35641

70 - 130

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	1011		mg/Kg		101	70 - 130	6	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	927.4		mg/Kg		93	70 - 130	0	20	
C10-C28)										

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	105		70 - 130

103

Lab Sample ID: 890-3099-A-1-E MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 35641 Prep Batch: 35652

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	215		998	1232		mg/Kg		102	70 - 130	
Diesel Range Organics (Over C10-C28)	250		998	1057		mg/Kg		81	70 - 130	

C10-C26)			
	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	85		70 - 130

Job ID: 890-3088-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: 890-3099-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 35641 Prep Type: Total/NA Prep Batch: 35652

Sample Sample Spike MSD MSD RPD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 215 999 1237 mg/Kg 102 70 - 130 0 20 (GRO)-C6-C10 999 Diesel Range Organics (Over 250 1062 mg/Kg 81 70 - 130 0

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	84		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

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Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			09/30/22 00:33	1

Lab Sample ID: LCS 880-35682/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	248.7		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-35682/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	249.0		mg/Kg		100	90 - 110	0	20	

Lab Sample ID: 890-3080-A-25-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	67.0		250	312 2		ma/Ka	_	98	90 - 110	

Lab Sample ID: 890-3080-A-25-C MSD

Matrix: Solid

Analysis Batch: 35722

Allalysis Datcil. 33722											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	67.0		250	313.7		mg/Kg		99	90 - 110		20

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Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

QC Association Summary

 Client: Ensolum
 Job ID: 890-3088-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

GC VOA

Prep Batch: 36446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Total/NA	Solid	5035	_
890-3088-2	HA04	Total/NA	Solid	5035	
MB 880-36446/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36446/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36446/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20114-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-20114-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 36448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36448/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Total/NA	Solid	8021B	36446
890-3088-2	HA04	Total/NA	Solid	8021B	36446
MB 880-36446/5-A	Method Blank	Total/NA	Solid	8021B	36446
MB 880-36448/5-A	Method Blank	Total/NA	Solid	8021B	36448
LCS 880-36446/1-A	Lab Control Sample	Total/NA	Solid	8021B	36446
LCSD 880-36446/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36446
880-20114-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	36446
880-20114-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36446

Analysis Batch: 36565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Total/NA	Solid	Total BTEX	
890-3088-2	HA04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Total/NA	Solid	8015B NM	35652
890-3088-2	HA04	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Total/NA	Solid	8015NM Prep	
890-3088-2	HA04	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3088-1
SDG: 03D2057013

GC Semi VOA

Analysis Batch: 35767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Total/NA	Solid	8015 NM	
890-3088-2	HA04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Soluble	Solid	DI Leach	
890-3088-2	HA04	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3088-1	HA04	Soluble	Solid	300.0	35682
890-3088-2	HA04	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	300.0	35682
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35682

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Lab Chronicle

 Client: Ensolum
 Job ID: 890-3088-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Client Sample ID: HA04

Date Collected: 09/27/22 10:05 Date Received: 09/28/22 08:29 Lab Sample ID: 890-3088-1

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36446	10/08/22 11:42	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36452	10/09/22 13:38	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36565	10/10/22 10:43	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35767	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 16:09	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 01:07	CH	EET MID

Client Sample ID: HA04 Lab Sample ID: 890-3088-2

Date Collected: 09/27/22 10:10 Date Received: 09/28/22 08:29

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 5.02 g 5 mL 36446 10/08/22 11:42 MNR EET MID Total/NA 8021B 5 mL 10/09/22 13:59 **EET MID** Analysis 1 5 mL 36452 AJ Total/NA Total BTEX 36565 10/10/22 10:43 Analysis 1 A.I **EET MID** Total/NA Analysis 8015 NM 35767 09/30/22 09:27 SM **EET MID** 35652 Total/NA Prep 8015NM Prep 10.00 g 10 mL 09/29/22 08:29 DM **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 35641 09/29/22 16:30 SM **EET MID** Soluble Leach DI Leach 4.99 g 50 mL 35682 09/29/22 12:06 SMC **EET MID** Soluble Analysis 300.0 35722 09/30/22 01:12 СН **EET MID**

Laboratory References:

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT
SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for	
the agency does not of	fer certification.	•	, , ,	·, ·····	
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	,	
0 ,		Matrix Solid	, , ,		

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Method Summary

Client: Ensolum Job ID: 890-3088-1
Project/Site: SEMU BMT SDG: 03D2057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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

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Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3088-1

SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3088-1	HA04	Solid	09/27/22 10:05	09/28/22 08:29	1
890-3088-2	HA04	Solid	09/27/22 10:10	09/28/22 08:29	2

Relinquished by: (Signature)

Received by: (Signature)

38-388 Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020 2

eurofins

Environment Testing

Phone:

Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

2						25.				Wor	ork Order Comments	
Josn Adams				Dill to. (If diller	rent)	20817	Udilis					
nsolum				Company Na	me:	Ensolu	3			Program: UST/PST PR	RP Brownfields RRC Superfund	
3122 National P	arks Hwy			Address:		3122 N	ational	arks Hwy.		State of Project:		
Carlsbad, NM 88	8220			City, State ZI	.P	Carlsba	ad, NM	38220		Reporting: Level II Level		
3035178437			Email:	adams@en	solum.c	com and	kjenni	ngs@enso	um.com	Deliverables: EDD	ADaPT Other:	
SEMI	UBMT		Turn	Around					ANALYSIS	REQUEST	Preservative Codes	
03D20	057013		✓ Routine	Rush	Pres. Code						None: NO DI Water: H ₂ O	
Lea Co	unty, NM		Due Date:	5 Day TA1	7						Coal: Coal MeOH: Me	
Liz	Cheli		TAT starts the	day received I	ьу				_			
7	I/A		the lab, if rece	ived by 4:30pi	_		4					
SAMPLE RECEIPT Temp Bla		Pes No	Wet Ice:	(Yes No	nete	.0)					H ₃ PO ₄ : HP	
Samples Received Intact:		ermomete	Ë	2200	ara:	: 300					NaHSO4: NABIS	20
Yes		orrection Fa	actor:	0,0	P	EPA			890-3088 C	hain of Custody	Zn Acetate+NaOH: Zn	of 2
	_	orrected Te	mperature:	_ _ _		DES		021			NaOH+Ascorbic Acid: SAPC	18
Sample Identification		Date ampled	Time Sampled	Depth Gra	np Cont		-	BLEX (S			Sample Comments	Page
HA04	S	9/27/22	1005		3	×	×	×			Incident ID:	
HA04	S	9/27/22	1010		np 1	×	×	×			NAPP2217430297	
					7						Cost Code - GA130323	
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												. 4
					-		_					
Total 200.7 / 6010 200.8 / 60	20:	88	RCRA 13P		1 ≥	Sb As	Ba Be		Cr Co Cu Fe	Mg Mn Mo Ni K Se	\g SiO ₂ Na Sr Tl Sn U V Zn	020
Metal(s) to be	analyzed		TCLP / SF		BRCRA		ВаВ	e Cd Cr	Co Cu Pb Mn N	Ni Se Ag TI U	Hg: 1631 / 245.1 / 7470 / 7471	4.10
ocument and relinqui	shment of s	amples cons	titutes a valid p	urchase order fi	rom client	company	to Eurofir	s Xenco, its at	fillates and subcontrac	tors. It assigns standard terms and co	onditions	
will be liable only fo	The cost of	firmalas and	1 - 5 - 11 mat again								The state of the s	
	Project Manager: Josh Adams Company Name: Ensolum Address: 3122 National P City, State ZIP: Carlsbad, NM 8 Phone: 3035178437 Project Name: SEM Project Location: Lea Co Sampler's Name: Liz PO #: Liz Sample Received Intact: Ves No Sample Custody Seals: Yes No Sample Custody Seals: Yes No Total 200.7 / 6010 200.8 / 60 Circle Method(s) and Metal(s) to be votice: Signature of this document and relinguity for service and relinguity and the little and relinguity for service will be litable and relinguity for service and relinguity for service will be litable and relinguity for service will be serviced will be litable and relinguity for service will be serviced wi	Josh Adams Ensolum 3122 National Parks Hwy Carlsbad, NM 88220 3035178437 SEMU BMT 03D2057013 Lea County, NM Liz Chell N/A Temp Blank: 1 Yes No NA Temp Blank: 1 Yes No NA Semu Blank: 1 Semu Bl	Project Manager: Josh Adams Company Name: Ensolum Address: 3122 National Parks Hwy. City, State ZIP: Carlsbad, NM 88220 Phone: 3035178437 Project Number: SEMU BMT Project Location: Lea County, NM Sampler's Name: Liz Cheli PO #: NIA SAMPLE RECEIPT Temp Blank: Ves No NIA Samples Received Intact: Yes No NIA Sample Custody Seals: Yes No NIA Sample Custody Seals: Yes No NIA Temperature Total Containers: Corrected Te Sample Identification Matrix Sampled HA04 S 9/27/22 HA04 S 9/27/22 Total 200.7 / 6010 200.8 / 6020: 88 Total 200.7 / 6010 200.8 / 6020: 88 Vedece: Signature of this document and relinquishment of samples constitutions.	Insolum 3122 National Parks Hwy. 3035178437 SEMU BMT SEMU BMT SEMU BMT O3D2057013 Lea County, NM Liz Cheli Liz Cheli Ves No NA Thermometer ID: Temp Blank: Correction Factor: See No NA Temperature Reading: Corrected Temperature: Sampled Sampled Sampled Sampled Sampled Date Time \$3/27/22 1010 200.8 / 6020: BRCRA 13P TCLP / Sr	Insolum In	Insolum Ins	Insolum In	Sempled Sampled Samp	Institute Inst	Insolum	Bill to: (If different) Josh Adams Wo Company Name: Ensolum Size ZIP: Carlsbad, NM 88220 Size ZIP: Carlsbad, NM 88	wnfields RRC TRRP TRRP Other: Preservativ None: NO Cool: Cool HCL: HC H ₂ SO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NASO ₃ Zn Acetate+NaOH NaOH+Ascorbic A Sample Co Incident ID: NAPP22174302 Cost Code - GA: AFE000000 AFE000000

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3088-1

 SDG Number: 03D2057013

Login Number: 3088 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.	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	

j 323

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3088-1 SDG Number: 03D2057013

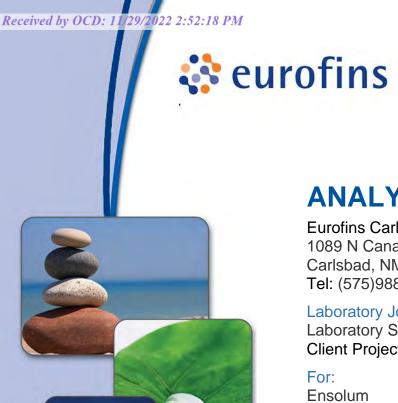
Login Number: 3088 **List Source: Eurofins Midland** List Number: 2 List Creation: 09/29/22 11:12 AM

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	N/A	

<6mm (1/4").





Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3089-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/10/2022 10:08:34 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

.....LINKS

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Released to Imaging: 1/4/2023 11:44:06 AM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3089-1
SDG: 03D2057013

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Definitions/Glossary

Client: Ensolum Job ID: 890-3089-1 Project/Site: SEMU BMT SDG: 03D2057013

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.

Surrogate recovery exceeds control limits, high biased.

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

RPD

TEF

TEQ

TNTC

S1+

U

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

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

Relative Percent Difference, a measure of the relative difference between two points

Eurofins Carlsbad

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Job ID: 890-3089-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Job ID: 890-3089-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3089-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36449 and analytical batch 880-36442 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene Due to a misinjection.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36449/1-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.

GC Semi VOA

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

HPLC/IC

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

Eurofins Carlsbad 10/10/2022

Matrix: Solid

Lab Sample ID: 890-3089-1

Client Sample Results

Client: Ensolum Job ID: 890-3089-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA05

Date Collected: 09/27/22 10:15 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *- *1 F1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 02:45	1
Toluene	<0.00202	U *- *1 F1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 02:45	1
Ethylbenzene	<0.00202	U *- *1 F1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 02:45	1
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.00403	mg/Kg		10/08/22 12:21	10/09/22 02:45	1
o-Xylene	<0.00202	U *+ *1 F1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 02:45	1
Xylenes, Total	<0.00403	U F1	0.00403	mg/Kg		10/08/22 12:21	10/09/22 02:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			10/08/22 12:21	10/09/22 02:45	1
1,4-Difluorobenzene (Surr)	90		70 - 130			10/08/22 12:21	10/09/22 02:45	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
- Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (0	GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	158		49.9	mg/Kg			09/30/22 09:27	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/29/22 08:29	09/29/22 16:52	Dil Fac
Diesel Range Organics (Over C10-C28)	158		49.9	mg/Kg		09/29/22 08:29	09/29/22 16:52	1
Diesel Range Organics (Over	158 <49.9	U	49.9 49.9			09/29/22 08:29 09/29/22 08:29	09/29/22 16:52 09/29/22 16:52	1
Diesel Range Organics (Over C10-C28)				mg/Kg				1
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9		49.9	mg/Kg		09/29/22 08:29	09/29/22 16:52	1 1 1 <i>Dil Fac</i>
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 %Recovery		49.9	mg/Kg		09/29/22 08:29 Prepared	09/29/22 16:52 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: MCAWW 300.0 - Anions	<49.9 %Recovery 78 78 78 78 78 4, lon Chromato	Qualifier	49.9 Limits 70 - 130 70 - 130	mg/Kg mg/Kg		09/29/22 08:29 Prepared 09/29/22 08:29	09/29/22 16:52 Analyzed 09/29/22 16:52	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<49.9 %Recovery 78 78 78 78 78 4, lon Chromato	Qualifier	49.9 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	09/29/22 08:29 Prepared 09/29/22 08:29	09/29/22 16:52 Analyzed 09/29/22 16:52	Dil Face 1 Dil Face 1 Dil Face 1 Dil Face 1

Client Sample ID: HA05

Date Collected: 09/27/22 10:30 Date Received: 09/28/22 08:29

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *- *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 03:05	1
Toluene	<0.00198	U *- *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 03:05	1
Ethylbenzene	<0.00198	U *- *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 03:05	1
m-Xylene & p-Xylene	<0.00396	U *- *1	0.00396	mg/Kg		10/08/22 12:21	10/09/22 03:05	1
o-Xylene	<0.00198	U *+ *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 03:05	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/08/22 12:21	10/09/22 03:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130			10/08/22 12:21	10/09/22 03:05	1

Eurofins Carlsbad

Lab Sample ID: 890-3089-2

Matrix: Solid

Client Sample Results

Client: Ensolum Job ID: 890-3089-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA05 Lab Sample ID: 890-3089-2 Matrix: Solid

Date Collected: 09/27/22 10:30 Date Received: 09/28/22 08:29

78.1

Sample Depth: 2

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130			10/08/22 12:21	10/09/22 03:05	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			10/10/22 10:40	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	113		50.0	mg/Kg			09/30/22 09:27	1
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 17:13	1
Diesel Range Organics (Over	113		50.0	mg/Kg		09/29/22 08:29	09/29/22 17:13	1
C10-C28)				99				·
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 17:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			09/29/22 08:29	09/29/22 17:13	1
o-Terphenyl	93		70 - 130			09/29/22 08:29	09/29/22 17:13	1
1-Chlorooctane o-Terphenyl Method: MCAWW 300.0 - Anions	93	graphy - S	70 - 130					

4.95

mg/Kg

09/30/22 01:31

Surrogate Summary

Client: Ensolum Job ID: 890-3089-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3089-1	HA05	92	90	
890-3089-1 MS	HA05	106	91	
890-3089-1 MSD	HA05	96	81	
890-3089-2	HA05	74	89	
LCS 880-36449/1-A	Lab Control Sample	171 S1+	117	
LCSD 880-36449/2-A	Lab Control Sample Dup	98	94	
MB 880-36293/5-A	Method Blank	83	92	
MB 880-36449/5-A	Method Blank	87	87	

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
		1001	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-3089-1	HA05	78	78	
90-3089-2	HA05	93	93	
90-3099-A-1-E MS	Matrix Spike	88	85	
0-3099-A-1-F MSD	Matrix Spike Duplicate	89	84	
S 880-35652/2-A	Lab Control Sample	102	103	
CSD 880-35652/3-A	Lab Control Sample Dup	101	105	
B 880-35652/1-A	Method Blank	100	108	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-3089-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36293/5-A

Matrix: Solid Analysis Batch: 36442

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1

MB MB Qualifier %Recovery Limits Dil Fac Surrogate Prepared Analyzed 70 - 130 10/06/22 15:51 4-Bromofluorobenzene (Surr) 83 10/08/22 15:47 92 10/06/22 15:51 1,4-Difluorobenzene (Surr) 70 - 130 10/08/22 15:47

Lab Sample ID: MB 880-36449/5-A

Matrix: Solid

Analysis Batch: 36442

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

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36293

Prep Batch: 36449

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepa	red	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	10/08/22	2 12:21	10/09/22 02:23	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/08/22	2 12:21	10/09/22 02:23	1

Lab Sample ID: LCS 880-36449/1-A

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 36449

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.01884 mg/Kg 19 70 - 130

Toluene 0.100 0.01832 *mg/Kg 18 70 - 130 Ethylbenzene 0.100 0.02039 *mg/Kg 20 70 - 130 0.200 0.05373 *-27 m-Xylene & p-Xylene mg/Kg 70 - 130 0.100 70 - 130 o-Xylene 0.3177 *+ mg/Kg 318

LCS LCS

MR MR

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1.4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Lab Cont	rol Sample Dup
Prep	Type: Total/NA

Prep Batch: 36449

LCSD LCSD RPD Spike %Rec Result Qualifier Analyte Added Unit %Rec Limits RPD Limit Benzene 0.100 0.09908 mg/Kg 99 70 - 130 136 35

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QC Sample Results

Client: Ensolum Job ID: 890-3089-1 Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: LCSD 880-36449/2-A **Matrix: Solid**

Analysis Batch: 36442

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36449

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08768	*1	mg/Kg		88	70 - 130	131	35
Ethylbenzene	0.100	0.08396	*1	mg/Kg		84	70 - 130	122	35
m-Xylene & p-Xylene	0.200	0.1727	*1	mg/Kg		86	70 - 130	105	35
o-Xylene	0.100	0.09883	*1	mg/Kg		99	70 - 130	105	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-3089-1 MS

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: HA05 Prep Type: Total/NA

Prep Batch: 36449

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U *- *1 F1	0.0998	0.04456	F1	mg/Kg		45	70 - 130	
Toluene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
Ethylbenzene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.200	0.07327	F1	mg/Kg		37	70 - 130	
o-Xylene	<0.00202	U *+ *1 F1	0.0998	0.04861	F1	mg/Kg		49	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	91	70 - 130

Lab Sample ID: 890-3089-1 MSD

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: HA05

Prep Type: Total/NA

Prep Batch: 36449

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	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U *- *1 F1	0.101	0.03882	F1	mg/Kg		39	70 - 130	14	35
Toluene	<0.00202	U *- *1 F1	0.101	0.04506	F1	mg/Kg		45	70 - 130	1	35
Ethylbenzene	<0.00202	U *- *1 F1	0.101	0.04374	F1	mg/Kg		43	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.201	0.06634	F1	mg/Kg		33	70 - 130	10	35
o-Xylene	<0.00202	U *+ *1 F1	0.101	0.04504	F1	mg/Kg		45	70 - 130	8	35

MSD MSD

мв мв Result Qualifier

<50.0 U

Surrogate	76Recovery	Qualifier	LIIIIII
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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

Lab Sample ID: MB 880-35652/1-A

Matrix: Solid

Analysis Batch: 35641

Gasoline Range Organics

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 35652

Prepared 09/29/22 08:29 09/29/22 09:45

(GRO)-C6-C10

Eurofins Carlsbad

50.0

Unit

mg/Kg

Client: Ensolum Job ID: 890-3089-1 Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: MB 880-35652/1-A **Matrix: Solid**

Analysis Batch: 35641

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

Prep Batch: 35652

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 09/29/22 08:29 09/29/22 09:45 Diesel Range Organics (Over mg/Kg C10-C28) Oll Range Organics (Over C28-C36) 50.0 09/29/22 08:29 09/29/22 09:45 <50.0 U mg/Kg

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	09/29/22 08:29	09/29/22 09:45	1
o-Terphenyl	108		70 - 130	09/29/22 08:29	09/29/22 09:45	1

Lab Sample ID: LCS 880-35652/2-A

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35652

	Spike	LCS	LUS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	951.3		mg/Kg		95	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	925.7		mg/Kg		93	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-35652/3-A

Matrix: Solid

Analysis Batch: 35641

Client Sample	ID: Lab	Control	Sample I	Oup
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Prep Type: Total/NA

Prep Batch: 35652

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1011		mg/Kg		101	70 - 130	6	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	927.4		mg/Kg		93	70 - 130	0	20
C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 101 70 - 130 o-Terphenyl 105 70 - 130

Lab Sample ID: 890-3099-A-1-E MS

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35652

Spike MS MS %Rec Sample Sample Result Qualifier Added Result Qualifier Unit %Rec Limits Analyte 215 998 70 - 130 Gasoline Range Organics 1232 102 mg/Kg (GRO)-C6-C10 998 Diesel Range Organics (Over 250 1057 mg/Kg 81 70 - 130

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-3099-A-1-F MSD

Job ID: 890-3089-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 35652

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	215		999	1237		mg/Kg		102	70 - 130	0	20
(GRO)-C6-C10											
Diesel Range Organics (Over	250		999	1062		mg/Kg		81	70 - 130	0	20

C10-C28)

Matrix: Solid

Analysis Batch: 35641

MSD MSD Qualifier Surrogate %Recovery Limits 70 - 130 1-Chlorooctane 89 o-Terphenyl 84 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Soluble

Analysis Batch: 35722

MB MB

Result Qualifier RL Unit Analyte Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 09/30/22 00:33

Lab Sample ID: LCS 880-35682/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	248.7		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-35682/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	249.0		mg/Kg	_	100	90 - 110		20	

Lab Sample ID: 890-3080-A-25-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	67.0		250	312.2		mg/Kg		98	90 - 110	

Lab Sample ID: 890-3080-A-25-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 35722

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Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier Analyte %Rec Limits RPD Limit Unit D 250 313.7 Chloride 67.0 90 - 110 mg/Kg

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Prep Type: Soluble

QC Association Summary

Client: Ensolum

Job ID: 890-3089-1 Project/Site: SEMU BMT SDG: 03D2057013

GC VOA

Prep Batch: 36293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36293/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Total/NA	Solid	8021B	36449
890-3089-2	HA05	Total/NA	Solid	8021B	36449
MB 880-36293/5-A	Method Blank	Total/NA	Solid	8021B	36293
MB 880-36449/5-A	Method Blank	Total/NA	Solid	8021B	36449
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	8021B	36449
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36449
890-3089-1 MS	HA05	Total/NA	Solid	8021B	36449
890-3089-1 MSD	HA05	Total/NA	Solid	8021B	36449

Prep Batch: 36449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Total/NA	Solid	5035	
890-3089-2 HA05		Total/NA	Solid	5035	
MB 880-36449/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3089-1 MS	HA05	Total/NA	Solid	5035	
890-3089-1 MSD	HA05	Total/NA	Solid	5035	

Analysis Batch: 36554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Total/NA	Solid	Total BTEX	
890-3089-2	HA05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Total/NA	Solid	8015B NM	35652
890-3089-2	HA05	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Total/NA	Solid	8015NM Prep	
890-3089-2	HA05	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

 Client: Ensolum
 Job ID: 890-3089-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

GC Semi VOA

Analysis Batch: 35768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Total/NA	Solid	8015 NM	
890-3089-2	HA05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Soluble	Solid	DI Leach	
890-3089-2	HA05	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3089-1	HA05	Soluble	Solid	300.0	35682
890-3089-2	HA05	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	300.0	35682
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35682

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Job ID: 890-3089-1 SDG: 03D2057013

Client Sample ID: HA05

Project/Site: SEMU BMT

Client: Ensolum

Lab Sample ID: 890-3089-1

Date Collected: 09/27/22 10:15 Date Received: 09/28/22 08:29

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 02:45	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36554	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35768	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 16:52	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 01:16	CH	EET MID

Lab Sample ID: 890-3089-2

Matrix: Solid

Date Collected: 09/27/22 10:30 Date Received: 09/28/22 08:29

Client Sample ID: HA05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 03:05	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36554	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35768	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 17:13	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	35682	09/29/22 12:06	SMC	EET MIC
Soluble	Analysis	300.0		1			35722	09/30/22 01:31	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT
SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date 06-30-23	
		ELAP	T104704400-22-24		
The following analytes	are included in this report, bu	it the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for w	
the agency does not of	fer certification.	,	ou s, and governmig dualismy.	ay molado analytoo for v	
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	ay morado anarytoo tor v	
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Method Summary

Client: Ensolum Job ID: 890-3089-1
Project/Site: SEMU BMT SDG: 03D2057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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

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Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3089-1

SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3089-1	HA05	Solid	09/27/22 10:15	09/28/22 08:29	1
890-3089-2	HA05	Solid	09/27/22 10:30	09/28/22 08:29	2

Address:

Company Name:

Ensolum Josh Adams

City, State ZIP:

3035178437 Carlsbad, NM 88220 3122 National Parks Hwy

Email: jadams@ensolum.com and kjennings@ensolum.com

ANALYSIS REQUEST

Preservative Codes

City, State ZIP:

Carlsbad, NM 88220 3122 National Parks Hwy. Company Name: Bill to: (if different)

Josh Adams

Address:

Project Name:

SEMU BMT

Turn Around

Project Manager:

Xenco

Environment Testing

Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

		Work Order No:		
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		www.xenco.com	Page of _	
		Work Order Comments	mments	
	- T	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	elds 🗌 RRC 🗎 Super	rfund 🗌
	(0	State of Project:		1
	70	Reporting: Level II Level III PST/UST TRRP Level IV	JST TRRP Lev	/el IV
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Revised Date 08/25/2020 Rev 2020 2			-						_	
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	ircumstances beyond the control forced unless previously negotiated.	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 \$86.00 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.	Eurofins Xe	losses or ubmitted to	ty for an	e any responsibili rge of \$6 for each	d shall not assum project and a cha	st of samples an	liable only for the cor large of \$85.00 will be	of service. Eurofins Xenco will b
	standard terms and conditions	Notice. Signature of this document and relinguishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	urofins Xenc	mpany to E	client co	chase order from	titutes a valid pu	of samples cons	nt and relinguishment	Notice: Signature of this docume
/7470 /7471	\g TI U Hg: 1631 / 245.1 / 7470	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	a Be Cd	Sb As B	CRA	TCLP / SPLP 6010: 8RCRA	TCLP / SP	zed	tal(s) to be analy:	Circle Method(s) and Metal(s) to be analyzed
I Sn U V Zn	Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	Cd Ca Cr Co Cu Fe Pb Mg Mn	œ	As Ba	A S	M Texas 11 Al Sb As Ba Be	8RCRA 13PPM	84	200.8 / 6020:	Total 200.7 / 6010
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Cost Code - GA130323	Cost C				C	2				
NAPP2217430297	NAPP2		×	×	_	Somp	1030 2'	9/27/22	S	HA05
nt ID:	Incident ID:		×	×	-	Copip	1015 1'	9/27/22	S	HA05
Sample Comments	Sa		BTEX	CHLO	# of	Depth Grab/ # of Comp Cont	Time Sampled	Date Sampled	on Matrix	Sample Identification
NaUH+ASCOIDIC ACID: SAFC		- !	(802			7.1	mperature:	Corrected Temperature:		Total Containers:
Zn Acetate+NaOH: Zn		890-3089 Chain of Custody	1	S (E		1.6	Reading:	N/A Temperature Reading:	Yes No WIA	Sample Custody Seals:
Na ₂ S ₂ O ₃ : NaSO ₃	Na ₂ S ₂ O			PA:	Pa	(A)		Correction Factor:	Yes No MA	Cooler Custody Seals:
NaHSC4: NABIS	Zailv			300	araı	7 (NO)		Thermometer ID:	Yes) No	Samples Received Intact:
Ŧ	H ₃ PO ₄ : HP).0)	nete	Yes No	Wet Ice:	(Yes) No	Temp Blank:	SAMPLE RECEIPT
H ₂ NaOH: Na	H ₂ S0 ₄ : H ₂		_	+	rs	red by 4:30pm	the lab, if received by 4:30pm)	N/A	PO#
	HCL: HC			-		lay received by	TAT starts the day received by		Liz Cheli	Sampler's Name:
	Cool: Cool					5 Day TAT	Due Date:		Lea County, NM	Project Location:
NO DI Water: H ₂ O	None: NO				Pres.	Rush	✓ Routine	3	03D2057013	Project Number:

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3089-1

 SDG Number: 03D2057013

Login Number: 3089 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.	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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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3089-1 SDG Number: 03D2057013

Login Number: 3089 **List Source: Eurofins Midland** List Number: 2

List Creation: 09/29/22 11:12 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	N/A	

Released to Imaging: 1/4/2023 11:44:06 AM

<6mm (1/4").



Have a Question?

www.eurofinsus.com/Env

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Visit us at:

Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3090-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams



Authorized for release by: 10/10/2022 10:09:06 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3090-1
SDG: 03D2057013

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Definitions/Glossary

Job ID: 890-3090-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Qualifiers

GC VOA

Qualifier **Qualifier Description** LCS and/or LCSD is outside acceptance limits, low biased. *+ LCS and/or LCSD is outside acceptance limits, high biased.

*1 LCS/LCSD RPD exceeds control limits. F1 MS and/or MSD recovery exceeds control limits.

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

GC Semi VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

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**

Detection Limit (DoD/DOE) DL

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)

Estimated Detection Limit (Dioxin) **EDL** LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MI 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

Practical Quantitation Limit **PQL**

PRES Presumptive **Quality Control** QC

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

Job ID: 890-3090-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Job ID: 890-3090-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3090-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36449 and analytical batch 880-36442 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene Due to a misinjection.

Method 8021B: Surrogate recovery for the following samples were outside control limits: HA06 (890-3090-1), HA06 (890-3090-2) and (LCS 880-36449/1-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.

GC Semi VOA

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

HPLC/IC

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

Job ID: 890-3090-1

Job ID: 890-3090-1 SDG: 03D2057013

Client Sample ID: HA06

Project/Site: SEMU BMT

Date Collected: 09/27/22 11:15 Date Received: 09/28/22 08:29

Sample Depth: 2

Client: Ensolum

Lab Sample ID: 890-3090-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 03:26	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 03:26	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 03:26	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399	mg/Kg		10/08/22 12:21	10/09/22 03:26	1
o-Xylene	<0.00200	U *+ *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 03:26	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/08/22 12:21	10/09/22 03:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130			10/08/22 12:21	10/09/22 03:26	1
1,4-Difluorobenzene (Surr)	89		70 - 130			10/08/22 12:21	10/09/22 03:26	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/10/22 10:40	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	222		49.9	mg/Kg			09/30/22 09:27	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		09/29/22 08:29	09/29/22 17:35	1
(GRO)-C6-C10								
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	222		49.9	mg/Kg		09/29/22 08:29	09/29/22 17:35	1
Diesel Range Organics (Over C10-C28)	222 <49.9	U	49.9 49.9	mg/Kg mg/Kg		09/29/22 08:29 09/29/22 08:29	09/29/22 17:35 09/29/22 17:35	1
•				0 0				
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9		49.9	0 0		09/29/22 08:29	09/29/22 17:35	1

Client Sample ID: HA06 Lab Sample ID: 890-3090-2

RL

5.05

Unit

mg/Kg

D

Prepared

Analyzed

09/30/22 01:36

Dil Fac

Matrix: Solid

Date Collected: 09/27/22 11:30 Date Received: 09/28/22 08:29

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

338

Sample Depth: 3

Analyte

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00758	*- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 03:46	1
Toluene	0.00875	*- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 03:46	1
Ethylbenzene	0.00384	*- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 03:46	1
m-Xylene & p-Xylene	0.00717	*- *1	0.00398	mg/Kg		10/08/22 12:21	10/09/22 03:46	1
o-Xylene	0.00706	*+ *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 03:46	1
Xylenes, Total	0.0142		0.00398	mg/Kg		10/08/22 12:21	10/09/22 03:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			10/08/22 12:21	10/09/22 03:46	1

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Client Sample Results

Client: Ensolum Job ID: 890-3090-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA06

Result Qualifier

223

Lab Sample ID: 890-3090-2 Matrix: Solid

Unit

mg/Kg

Date Collected: 09/27/22 11:30 Date Received: 09/28/22 08:29

Sample Depth: 3

Analyte

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	141	S1+	70 - 130			10/08/22 12:21	10/09/22 03:46	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	0.0344		0.00398	mg/Kg			10/10/22 10:40	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
			49.9				09/30/22 09:27	
Total TPH	324		49.9	mg/Kg			03/00/22 03.27	
Total TPH : Method: SW846 8015B NM - Dies		nics (DRO)		mg/kg			03/30/22 03.27	
•	sel Range Orga	nics (DRO) Qualifier		Unit	D	Prepared	Analyzed	Dil Fac
: Method: SW846 8015B NM - Dies	sel Range Orga	Qualifier	(GC)		<u>D</u>	Prepared 09/29/22 08:29		Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result	Qualifier	(GC)	Unit	<u>D</u>	<u>.</u>	Analyzed	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <49.9	Qualifier U	(GC) RL 49.9	<mark>Unit</mark> mg/Kg	<u>D</u>	09/29/22 08:29	Analyzed 09/29/22 17:56	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga Result <<49.9 324	Qualifier U	(GC) RL 49.9	<mark>Unit</mark> mg/Kg mg/Kg	<u>D</u>	09/29/22 08:29	Analyzed 09/29/22 17:56 09/29/22 17:56	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result <49.9 324 <49.9	Qualifier U	(GC) RL 49.9 49.9 49.9	<mark>Unit</mark> mg/Kg mg/Kg	<u>D</u>	09/29/22 08:29 09/29/22 08:29 09/29/22 08:29	Analyzed 09/29/22 17:56 09/29/22 17:56 09/29/22 17:56	

5.03

Dil Fac

Prepared

Analyzed

09/30/22 01:41

Surrogate Summary

Client: Ensolum Job ID: 890-3090-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3089-A-1-F MS	Matrix Spike	106	91	
890-3089-A-1-G MSD	Matrix Spike Duplicate	96	81	
890-3090-1	HA06	69 S1-	89	
890-3090-2	HA06	86	141 S1+	
LCS 880-36449/1-A	Lab Control Sample	171 S1+	117	
LCSD 880-36449/2-A	Lab Control Sample Dup	98	94	
MB 880-36293/5-A	Method Blank	83	92	
MB 880-36449/5-A	Method Blank	87	87	

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 Limit
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3090-1	HA06	74	72	
890-3090-2	HA06	77	74	
890-3099-A-1-E MS	Matrix Spike	88	85	
390-3099-A-1-F MSD	Matrix Spike Duplicate	89	84	
_CS 880-35652/2-A	Lab Control Sample	102	103	
LCSD 880-35652/3-A	Lab Control Sample Dup	101	105	
MB 880-35652/1-A	Method Blank	100	108	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3090-1 SDG: 03D2057013 Project/Site: SEMU BMT

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36293/5-A

Matrix: Solid Analysis Batch: 36442 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36293

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	10/06/22 15:51	10/08/22 15:47	1
1,4-Difluorobenzene (Surr)	92		70 - 130	10/06/22 15:51	10/08/22 15:47	1

Lab Sample ID: MB 880-36449/5-A

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36449

	MB	MB									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1			
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1			
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1			
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1			
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1			
Yylonos Total	<0.00400	11	0.00400	ma/Ka		10/08/22 12:21	10/00/22 02:23	1			

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1

Lab Sample ID: LCS 880-36449/1-A

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 36449

	Spike	LOS	LUS				/orec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.01884	*_	mg/Kg		19	70 - 130	
Toluene	0.100	0.01832	*_	mg/Kg		18	70 - 130	
Ethylbenzene	0.100	0.02039	*-	mg/Kg		20	70 - 130	
m-Xylene & p-Xylene	0.200	0.05373	*_	mg/Kg		27	70 - 130	
o-Xylene	0.100	0.3177	*+	mg/Kg		318	70 - 130	

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LCS LCS

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1.4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36449

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09908	*1	mg/Kg		99	70 - 130	136	35	

QC Sample Results

Client: Ensolum Job ID: 890-3090-1 SDG: 03D2057013 Project/Site: SEMU BMT

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

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid Analysis Batch: 36442

Client Sample	ID:	Lab	Control	Sample	Dup
---------------	-----	-----	---------	--------	-----

Prep Type: Total/NA Prep Batch: 36449

D Limit
1 35
2 35
5 35
5 35
1 2 5

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-3089-A-1-F MS

Matrix: Solid

Analysis Batch: 36442

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

Prep Batch: 36449

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U *- *1 F1	0.0998	0.04456	F1	mg/Kg		45	70 - 130	
Toluene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
Ethylbenzene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.200	0.07327	F1	mg/Kg		37	70 - 130	
o-Xylene	<0.00202	U *+ *1 F1	0.0998	0.04861	F1	mg/Kg		49	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	91	70 - 130

Lab Sample ID: 890-3089-A-1-G MSD

Matrix: Solid Analysis Batch: 36442

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36449

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U *- *1 F1	0.101	0.03882	F1	mg/Kg		39	70 - 130	14	35
Toluene	<0.00202	U *- *1 F1	0.101	0.04506	F1	mg/Kg		45	70 - 130	1	35
Ethylbenzene	<0.00202	U *- *1 F1	0.101	0.04374	F1	mg/Kg		43	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.201	0.06634	F1	mg/Kg		33	70 - 130	10	35
o-Xylene	<0.00202	U *+ *1 F1	0.101	0.04504	F1	mg/Kg		45	70 - 130	8	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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

Lab Sample ID: MB 880-35652/1-A

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 35652

мв мв Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 09/29/22 08:29 09/29/22 09:45 Gasoline Range Organics

(GRO)-C6-C10

Oll Range Organics (Over C28-C36)

09/29/22 08:29

09/29/22 09:45

QC Sample Results

 Client: Ensolum
 Job ID: 890-3090-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

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

<50.0 U

Lab Sample ID: MB 880-35652/1-A

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35652

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte <50.0 U 50.0 09/29/22 08:29 09/29/22 09:45 Diesel Range Organics (Over mg/Kg C10-C28)

50.0

mg/Kg

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 100 70 - 130 09/29/22 08:29 09/29/22 09:45 108 70 - 130 09/29/22 08:29 09/29/22 09:45 o-Terphenyl

Lab Sample ID: LCS 880-35652/2-A Client Sample ID: Lab Control Sample

Matrix: Solid
Analysis Batch: 35641
Prep Type: Total/NA
Prep Batch: 35652

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 951.3 95 70 - 130 mg/Kg (GRO)-C6-C10 1000 925.7 Diesel Range Organics (Over 93 70 - 130mg/Kg C10-C28)

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 102
 70 - 130

 o-Terphenyl
 103
 70 - 130

Lab Sample ID: LCSD 880-35652/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 35641

Spike LCSD LCSD %Rec **RPD** Result Qualifier RPD Limit Analyte Added Unit D %Rec Limits 1000 1011 101 70 - 130 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 927.4 mg/Kg 93 70 - 130 O 20 C10-C28)

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 101
 70 - 130

 o-Terphenyl
 105
 70 - 130

Lab Sample ID: 890-3099-A-1-E MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 35641 Prep Batch: 35652

%Rec Sample Sample Spike MS MS Qualifier Added Qualifier Analyte Result Result Unit %Rec Limits 998 Gasoline Range Organics 215 1232 102 70 - 130mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 250 998 1057 mg/Kg 81 70 - 130

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 88
 70 - 130

 o-Terphenyl
 85
 70 - 130

Eurofins Carlsbad

Prep Batch: 35652

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C10-C28)

Job ID: 890-3090-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

84

Lab Sample ID: 890-3099-A-1-F MSD				Client Sample ID: Matrix Spike Duplicate
Matrix: Solid				Prep Type: Total/NA
Analysis Batch: 35641				Prep Batch: 35652
s	Sample Sample	Spike	MSD MSD	%Rec RPD

١		Sample	Sample	Spike	MSD	MSD				%Rec		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Gasoline Range Organics (GRO)-C6-C10	215		999	1237		mg/Kg		102	70 - 130	0	20
	Diesel Range Organics (Over C10-C28)	250		999	1062		mg/Kg		81	70 - 130	0	20

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 70 - 130 89

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

70 - 130

Matrix: Solid

o-Terphenyl

Analysis Batch: 35722

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			09/30/22 00:33	1

Lab Sample ID: LCS 880-35682/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	248.7		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-35682/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	249.0		mg/Kg		100	90 - 110	0	20	

Lab Sample ID: 890-3080-A-25-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	67.0		250	312.2		ma/Ka		98	90 110	

Lab Sample ID: 890-3080-A-25-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid Analysis Batch: 35722

7 many old Batolin doi: 22												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	67.0		250	313 7		ma/Ka		99	90 - 110		20	

QC Association Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3090-1 SDG: 03D2057013

GC VOA

Prep Batch: 36293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36293/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Total/NA	Solid	8021B	36449
890-3090-2	HA06	Total/NA	Solid	8021B	36449
MB 880-36293/5-A	Method Blank	Total/NA	Solid	8021B	36293
MB 880-36449/5-A	Method Blank	Total/NA	Solid	8021B	36449
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	8021B	36449
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36449
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	36449
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36449

Prep Batch: 36449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Total/NA	Solid	5035	
890-3090-2	HA06	Total/NA	Solid	5035	
MB 880-36449/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Total/NA	Solid	Total BTEX	
890-3090-2	HA06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Total/NA	Solid	8015B NM	35652
890-3090-2	HA06	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Total/NA	Solid	8015NM Prep	
890-3090-2	HA06	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

 Client: Ensolum
 Job ID: 890-3090-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

GC Semi VOA

Analysis Batch: 35769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Total/NA	Solid	8015 NM	
890-3090-2	HA06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Soluble	Solid	DI Leach	_
890-3090-2	HA06	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3090-1	HA06	Soluble	Solid	300.0	35682
890-3090-2	HA06	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	300.0	35682
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35682

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Client: Ensolum Job ID: 890-3090-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA06

Date Collected: 09/27/22 11:15 Date Received: 09/28/22 08:29

Lab Sample ID: 890-3090-1

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 03:26	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36555	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35769	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 17:35	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 01:36	CH	EET MID

Lab Sample ID: 890-3090-2 **Client Sample ID: HA06**

Date Collected: 09/27/22 11:30 Date Received: 09/28/22 08:29

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 5.02 g 5 mL 36449 10/08/22 12:21 MNR EET MID Total/NA 8021B 5 mL 10/09/22 03:46 **EET MID** Analysis 1 5 mL 36442 ΑJ Total/NA Total BTEX 36555 10/10/22 10:40 Analysis 1 A.I **EET MID** Total/NA Analysis 8015 NM 35769 09/30/22 09:27 SM **EET MID** 35652 Total/NA Prep 8015NM Prep 10.03 g 10 mL 09/29/22 08:29 DM **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 35641 09/29/22 17:56 SM **EET MID** Soluble Leach DI Leach 4.97 g 50 mL 35682 09/29/22 12:06 SMC **EET MID** Soluble Analysis 300.0 35722 09/30/22 01:41 СН **EET MID**

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT

SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas		ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, but	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	• •	it the laboratory is not certific	su by the governing authority. This list his	ay include analytes to
,	• •	Matrix	Analyte	ay include analytes to
the agency does not of	fer certification.	,	, , ,	ay illoude allalytes lo

Method Summary

Client: Ensolum Job ID: 890-3090-1
Project/Site: SEMU BMT SDG: 03D2057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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

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Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3090-1

SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3090-1	HA06	Solid	09/27/22 11:15	09/28/22 08:29	2
890-3090-2	HA06	Solid	09/27/22 11:30	09/28/22 08:29	3

eurofins : **Environment Testing**

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334

	Enviro	Environment Testing	ng	Midland,	TX (432)	704-54	10, San Anti	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	509-3334			Wor	Work Order No:	Y No:			
	Xenco			EL Pas Hobbs,	30, TX (9', , NM (57!	15) 585-3 5) 392-75	3443, Lubbo 550, Carlsba	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	794-1296 388-3199							<u> </u>	
Project Manager:	inch Adams		B	Rill to: (if different)		losh Adams	BS						Work Order	Work Order Comments	nments		
	Ensolum		Co	Company Name:		Ensolum				Pro	ogram: U	ST/PST	PRP	Brownfle	ids 🗌 R	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	perfund [
	3122 National Parks Hwy	Hwy.	Adı	Address:		I22 Nati	3122 National Parks Hwy	Hwy.		Sta	State of Project:	ject:					l
e ZIP:	Carlsbad, NM 88220		Cit	City, State ZIP:	C	erlsbad,	Carlsbad, NM 88220)		Re	porting: Le	evel II 🔲	Level III	Reporting: Level II	ST 🗆 TI		Level IV
	3035178437		Email: jad	Email: jadams@ensolum.com and kjennings@ensolum.com	um.com	and k	ennings(c)ensolum.c	:om	De	Deliverables: EDD	EDD		ADaPT 🗆	ļ	Other:	
Project Name:	SEMU BMT	7	Turn Around	ound					ANALYSI	ANALYSIS REQUEST	ST				Prese	Preservative Codes	odes
Project Number:	03D2057013		☑ Routine □		Pres.									No	None: NO	DIW	DI Water: H ₂ O
Project Location:	Lea County, NM		Due Date: 5	5 Day TAT										င္ပ	Cool: Cool	MeO	MeOH: Me
Sampler's Name:	Liz Cheli		ĕ	y received by					_	-	-	_	-	프	HCL: HC	HNC	HNO3: HN
PO#	N/A		the lab, if received by 4:30pm	d by 4:30pm	rs	+								H ₂	H ₂ S0 ₄ : H ₂	Nao	NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Kes No V	Wet Ice:	Yes) No	nete	.0)								Н ₃	H ₃ PO ₄ : HP	-	
Samples Received Intact:	act: Yes No	Thermometer ID:		MMCON		300								Na	NaHSO ₄ : NABIS	VABIS	
Cooler Custody Seals:	~	Correction Factor:		o iu		PA:			890-3090	890-3090 Chain of Custody	ustody			Z	Na ₂ S ₂ O ₃ : NaSO ₃	VaSO ₃	
Sample Custody Seals:	Yes No NIA	Temperature Reading:	eading:	٠ ٣		S (E		-			a diameter	-		Zn	Acetate	Zn Acetate+NaOH: Zn	_
Total Containers:		Corrected Temperature:	perature:	1	_					_			-	Z.	3CH+ASC	NaUH+ASCOIDIC ACID: SAPC	VAPC
Sample Identification	fication Matrix	Date Sampled	Time De	Depth Grab/	# of Cont	TPH (86	BTEX (,							Sami	Sample Comments	ents
HA06	S	9/27/22	1115	Comp	-	×	×					_		ln.	Incident ID:	ب	
HA06				7 8. Omp		×	×							Ž	APP221	NAPP2217430297	
				23		_								င္ပ	ost Code	Cost Code - GA130323	323
				9		-									AFE	AFE0000000000471	0471
				9													
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					+	+		-		1		-	+	1			
Total 200.7 / 6010	0 200.8 / 6020:	8RCRA	RA 13PPM	1 Texas 11 Al Sb	Al Sb	&	Ba Be B (Cd Ca Cr	Co Cu Fe	e Pb Mg	Pb Mg Mn Mo	Ni K Se Ag SiO ₂ Na	e Ag S	O ₂ Na S	Sr TI Sn	n U V Zn	_
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA	Metal(s) to be anal	yzed	CLP / SPLI	P 6010: 8RC		b As E	за Ве Со	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag	u Pb Mn	Mo Ni S	Se Ag Ti	T U	Hg	1631 / 24	5.1/74	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	cument and relinquishmer	nt of samples constitu	tes a valid purci	hase order from (client con	pany to E	Eurofins Xen	co, its affiliates	and subcont	ractors. It as	signs stand	ard terms a	and condition	ons ntrol			
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. Ti	um charge of \$85.00 will b	e applied to each pro	ect and a charg	e of \$5 for each a	sample su	bmitted t	o Eurofins X	enco, but not a	nalyzed. These ter	se terms will t	rms will be enforced unless previously negotiated	unless prev	viously neg	otiated.			
Relinquished by: (Signature)	(Signature)	Received b	Received by: (Signature)	э)	0	Date/Time	ne	Relinquis	Relinquished by: (Signature)	Signature)		Receive	d by: (S	Received by: (Signature)		Date/Time	Time
11/1		7) A/	1	0	るの	38. 32	2 632	1									
1	(7														
			•				D		•								

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3090-1

SDG Number: 03D2057013

List Source: Eurofins Carlsbad

Login Number: 3090 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 True tampered with. Samples were received on ice. True True Cooler Temperature is acceptable. 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 True HTs) 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 True MS/MSDs

N/A

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10/10/2022

<6mm (1/4").

Containers requiring zero headspace have no headspace or bubble is

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3090-1 SDG Number: 03D2057013

Login Number: 3090 **List Source: Eurofins Midland** List Number: 2

List Creation: 09/29/22 11:12 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	N/A	

Released to Imaging: 1/4/2023 11:44:06 AM

<6mm (1/4").



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 1/4/2023 11:44:06 AM

Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3091-1

Laboratory Sample Delivery Group: Lea County NM

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/10/2022 10:09:26 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3091-1
SDG: Lea County NM

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Definitions/Glossary

Job ID: 890-3091-1 Client: Ensolum Project/Site: SEMU BMT SDG: Lea County NM

Qualifiers

GC VOA

Qualifier **Qualifier Description** LCS and/or LCSD is outside acceptance limits, low biased. *+ LCS and/or LCSD is outside acceptance limits, high biased. *1 LCS/LCSD RPD exceeds control limits.

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

GC Semi VOA

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

HPLC/IC

Qualifier **Qualifier Description**

Percent Recovery

U Indicates the analyte was analyzed for but not detected.

Glossary

%R

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

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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC

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

Presumptive **PRES** QC **Quality Control**

RER Relative Error Ratio (Radiochemistry) Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TFO

TNTC Too Numerous To Count

Case Narrative

Job ID: 890-3091-1 Client: Ensolum Project/Site: SEMU BMT SDG: Lea County NM

Job ID: 890-3091-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3091-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36449 and analytical batch 880-36442 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene Due to a misinjection.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36449/1-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.

GC Semi VOA

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

HPLC/IC

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

Matrix: Solid

Lab Sample ID: 890-3091-1

Client Sample Results

Client: Ensolum Job ID: 890-3091-1 Project/Site: SEMU BMT SDG: Lea County NM

Client Sample ID: HA07

Date Collected: 09/27/22 12:00 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 04:07	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 04:07	1
Ethylbenzene	< 0.00199	U *- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 04:07	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		10/08/22 12:21	10/09/22 04:07	1
o-Xylene	<0.00199	U *+ *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 04:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/08/22 12:21	10/09/22 04:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			10/08/22 12:21	10/09/22 04:07	1
1,4-Difluorobenzene (Surr)	85		70 - 130			10/08/22 12:21	10/09/22 04:07	1
Method: TAL SOP Total BTEX - T	otal BTEX Cal	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/10/22 10:40	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) ((GC)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	106		50.0	mg/Kg			09/30/22 09:27	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (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		09/29/22 08:29	09/29/22 18:17	1
Diesel Range Organics (Over C10-C28)	106		50.0	mg/Kg		09/29/22 08:29	09/29/22 18:17	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130			09/29/22 08:29	09/29/22 18:17	1
o-Terphenyl	75		70 - 130			09/29/22 08:29	09/29/22 18:17	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	ography - So	oluble					
		0 110			_			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: HA07

Date Collected: 09/27/22 12:05

Date Received: 09/28/22 08:29

Sample Depth: 2

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *- *1	0.00201	mg/Kg		10/08/22 12:21	10/09/22 04:27	1
Toluene	<0.00201	U *- *1	0.00201	mg/Kg		10/08/22 12:21	10/09/22 04:27	1
Ethylbenzene	<0.00201	U *- *1	0.00201	mg/Kg		10/08/22 12:21	10/09/22 04:27	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402	mg/Kg		10/08/22 12:21	10/09/22 04:27	1
o-Xylene	<0.00201	U *+ *1	0.00201	mg/Kg		10/08/22 12:21	10/09/22 04:27	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/08/22 12:21	10/09/22 04:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			10/08/22 12:21	10/09/22 04:27	1

5.02

mg/Kg

35.8

Eurofins Carlsbad

09/30/22 01:45

Lab Sample ID: 890-3091-2

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3091-2

09/30/22 01:50

Client Sample Results

Client: Ensolum Job ID: 890-3091-1 Project/Site: SEMU BMT SDG: Lea County NM

Client Sample ID: HA07

Date Collected: 09/27/22 12:05 Date Received: 09/28/22 08:29

Sample Depth: 2

Chloride

	Qualifier	Limits			Prepared	Analyzed	Dil Fac
89		70 - 130			10/08/22 12:21	10/09/22 04:27	1
otal BTEX Calc	ulation						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00402	U	0.00402	mg/Kg			10/10/22 10:40	1
I Range Organ	ics (DRO) (GC)					
		RL	Unit	D	Prepared	Analyzed	Dil Fac
147		49.9	mg/Kg			09/30/22 09:27	1
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
el Range Orga	nics (DRO)	(GC)					
<49.9	U	49.9	mg/Kg		09/29/22 08:29	09/29/22 18:39	1
447		40.0	malka		00/20/22 08:20	00/20/22 18:30	1
147		43.3	mg/rtg		03/23/22 00:23	09/29/22 10.59	
<49.9	U	49.9	mg/Kg		09/29/22 08:29	09/29/22 18:39	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
76		70 - 130			09/29/22 08:29	09/29/22 18:39	1
75		70 - 130			09/29/22 08:29	09/29/22 18:39	1
•	Fotal BTEX Calc Result <0.00402 I Range Organi Result 147 Sel Range Orga Result <49.9 147 <49.9 %Recovery 76	Fotal BTEX Calculation Result Qualifier <0.00402 U I Range Organics (DRO) (Result Qualifier 147 Sel Range Organics (DRO) Result Qualifier <49.9 U 147 49.9 U %Recovery Qualifier 76	Result Qualifier RL	Result Qualifier RL Unit mg/Kg	Result Qualifier RL Unit D mg/Kg	Result Qualifier RL Unit D Prepared	Result Qualifier RL Unit D Prepared Analyzed 10/10/22 10:40

5.00

mg/Kg

122

Surrogate Summary

Client: Ensolum Job ID: 890-3091-1 Project/Site: SEMU BMT SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3089-A-1-F MS	Matrix Spike	106	91	
890-3089-A-1-G MSD	Matrix Spike Duplicate	96	81	
890-3091-1	HA07	92	85	
890-3091-2	HA07	99	89	
LCS 880-36449/1-A	Lab Control Sample	171 S1+	117	
LCSD 880-36449/2-A	Lab Control Sample Dup	98	94	
MB 880-36293/5-A	Method Blank	83	92	
MB 880-36449/5-A	Method Blank	87	87	
Surrogate Legend				
BFB = 4-Bromofluorobena	zene (Surr)			

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
₋ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-3091-1	HA07	76	75	
90-3091-2	HA07	76	75	
390-3099-A-1-E MS	Matrix Spike	88	85	
90-3099-A-1-F MSD	Matrix Spike Duplicate	89	84	
CS 880-35652/2-A	Lab Control Sample	102	103	
CSD 880-35652/3-A	Lab Control Sample Dup	101	105	
1B 880-35652/1-A	Method Blank	100	108	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3091-1 Project/Site: SEMU BMT SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36293/5-A

Matrix: Solid Analysis Batch: 36442 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36293

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1

MB MB

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	10/06/22 15:	51 10/08/22 15:47	1
1,4-Difluorobenzene (Surr)	92		70 - 130	10/06/22 15:	51 10/08/22 15:47	1

Lab Sample ID: MB 880-36449/5-A

Matrix: Solid

Analysis Batch: 36442

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

Prep Batch: 36449

	MB I	MB						
Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	
Toluene	<0.00200 l	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	
Ethylbenzene	<0.00200 l	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	
m-Xylene & p-Xylene	<0.00400 l	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	
o-Xylene	<0.00200 l	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	
Xylenes, Total	<0.00400 l	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1

Lab Sample ID: LCS 880-36449/1-A

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 36449

		Spike	LCS	LCS				%Rec	
A	nalyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
В	enzene	0.100	0.01884	*_	mg/Kg		19	70 - 130	
Te	oluene	0.100	0.01832	*_	mg/Kg		18	70 - 130	
E	thylbenzene	0.100	0.02039	*-	mg/Kg		20	70 - 130	
m	n-Xylene & p-Xylene	0.200	0.05373	*_	mg/Kg		27	70 - 130	
0	-Xylene	0.100	0.3177	*+	mg/Kg		318	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1.4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442

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

Prep Batch: 36449

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09908	*1	mg/Kg		99	70 - 130	136	35

QC Sample Results

Job ID: 890-3091-1 Client: Ensolum Project/Site: SEMU BMT SDG: Lea County NM

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

Lab Sample ID: LCSD 880-36449/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36442 Prep Batch: 36449 Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.08768 *1 35 mg/Kg 88 70 - 130131 Ethylbenzene 0.100 0.08396 *1 mg/Kg 84 70 - 130 122 35 0.200 86 70 - 130 105 35 m-Xylene & p-Xylene 0.1727 mg/Kg

0.09883 *1

mg/Kg

99

43

33

45

70 - 130

70 - 130

70 - 130

70 - 130

105

Prep Type: Total/NA

10

0.100

LCSD LCSD %Recovery Qualifier Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 98 1,4-Difluorobenzene (Surr) 94 70 - 130

Lab Sample ID: 890-3089-A-1-F MS Client Sample ID: Matrix Spike

Analysis Batch: 36442

o-Xylene

Matrix: Solid Prep Type: Total/NA Prep Batch: 36449

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U *- *1 F1	0.0998	0.04456	F1	mg/Kg		45	70 - 130	
Toluene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
Ethylbenzene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.200	0.07327	F1	mg/Kg		37	70 - 130	
o-Xylene	<0.00202	U *+ *1 F1	0.0998	0.04861	F1	mg/Kg		49	70 - 130	

MS MS Qualifier %Recovery Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 106 1,4-Difluorobenzene (Surr) 91 70 - 130

Lab Sample ID: 890-3089-A-1-G MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 36442

Ethylbenzene

o-Xylene

m-Xylene & p-Xylene

Prep Batch: 36449 Sample Sample MSD MSD %Rec RPD Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00202 U *- *1 F1 0.101 0.03882 F1 39 70 - 130 14 35 mg/Kg Toluene <0.00202 U *- *1 F1 0.101 0.04506 F1 mg/Kg 45 70 - 130 35

0.04374 F1

0.06634 F1

0.04504 F1

mg/Kg

mg/Kg

mg/Kg

MSD MSD Qualifier Limits Surrogate %Recovery 4-Bromofluorobenzene (Surr) 96 70 - 130 1,4-Difluorobenzene (Surr) 70 - 130

<0.00202 U *- *1 F1

<0.00403 U *- *1 F1

<0.00202 U*+*1 F1

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

Lab Sample ID: MB 880-35652/1-A Client Sample ID: Method Blank

0.101

0.201

0.101

Analysis Batch: 35641

мв мв Analyte Result Qualifier RL Unit Prepared Dil Fac <50.0 U 50.0 09/29/22 08:29 09/29/22 09:45 Gasoline Range Organics mg/Kg

(GRO)-C6-C10

Matrix: Solid

Eurofins Carlsbad

Prep Type: Total/NA

Prep Batch: 35652

35

35

35

QC Sample Results

Job ID: 890-3091-1 Client: Ensolum Project/Site: SEMU BMT SDG: Lea County NM

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

Lab Sample ID: MB 880-35652/1-A **Matrix: Solid**

Analysis Batch: 35641

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 35652

MB MB Dil Fac

Result Qualifier RL Unit D Prepared Analyzed Analyte <50.0 U 50.0 09/29/22 08:29 09/29/22 09:45 Diesel Range Organics (Over mg/Kg C10-C28) 50.0 Oll Range Organics (Over C28-C36) <50.0 U 09/29/22 08:29 09/29/22 09:45 mg/Kg

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 100 70 - 130 09/29/22 08:29 09/29/22 09:45 108 70 - 130 09/29/22 08:29 09/29/22 09:45 o-Terphenyl

Lab Sample ID: LCS 880-35652/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 35641

Prep Type: Total/NA

Prep Batch: 35652

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 951.3 95 70 - 130 mg/Kg (GRO)-C6-C10 1000 925.7 Diesel Range Organics (Over 93 70 - 130mg/Kg C10-C28)

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 102 o-Terphenyl 103 70 - 130

Lab Sample ID: LCSD 880-35652/3-A

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35652

Spike LCSD LCSD %Rec **RPD** Result Qualifier Limits RPD Limit Analyte Added Unit D %Rec 1000 1011 101 70 - 130 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 927.4 mg/Kg 93 70 - 130 O 20 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 101 70 - 130 o-Terphenyl 105 70 - 130

Lab Sample ID: 890-3099-A-1-E MS

Matrix: Solid

Analysis Batch: 35641

Diesel Range Organics (Over

Client Sample ID: Matrix Spike

70 - 130

81

Prep Type: Total/NA

Prep Batch: 35652

%Rec Sample Sample Spike MS MS Qualifier Added Qualifier Analyte Result Result Unit %Rec Limits 998 Gasoline Range Organics 215 1232 102 70 - 130mg/Kg (GRO)-C6-C10

1057

mg/Kg

998

C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 88 70 - 130 1-Chlorooctane 70 - 130 85 o-Terphenyl

250

Job ID: 890-3091-1 Client: Ensolum Project/Site: SEMU BMT SDG: Lea County NM

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

Lab Sample ID: 890-3099-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 35641

Prep Type: Total/NA Prep Batch: 35652

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	215		999	1237		mg/Kg		102	70 - 130	0	20
(GRO)-C6-C10											
Diesel Range Organics (Over	250		999	1062		mg/Kg		81	70 - 130	0	20
C10-C28)											

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	84		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

мв мв

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			09/30/22 00:33	1

Lab Sample ID: LCS 880-35682/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	248.7		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-35682/3-A

Matrix: Solid

Analysis Batch: 35722

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	249.0		mg/Kg	_	100	90 - 110	0	20

Lab Sample ID: 890-3080-A-25-B MS

Matrix: Solid

Analysis Batch: 35722

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	67.0		250	312.2		ma/Ka		98	90 - 110	

Lab Sample ID: 890-3080-A-25-C MSD

Matrix: Solid

Analysis Ratch: 35722

Alialysis Balcii. 35722											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	67.0		250	313.7		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3091-1 SDG: Lea County NM

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GC VOA

Prep Batch: 36293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36293/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Total/NA	Solid	8021B	36449
890-3091-2	HA07	Total/NA	Solid	8021B	36449
MB 880-36293/5-A	Method Blank	Total/NA	Solid	8021B	36293
MB 880-36449/5-A	Method Blank	Total/NA	Solid	8021B	36449
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	8021B	36449
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36449
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	36449
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36449

Prep Batch: 36449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Total/NA	Solid	5035	
890-3091-2	HA07	Total/NA	Solid	5035	
MB 880-36449/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Total/NA	Solid	Total BTEX	
890-3091-2	HA07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Total/NA	Solid	8015B NM	35652
890-3091-2	HA07	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Total/NA	Solid	8015NM Prep	
890-3091-2	HA07	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3091-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 35770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Total/NA	Solid	8015 NM	
890-3091-2	HA07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Soluble	Solid	DI Leach	
890-3091-2	HA07	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3091-1	HA07	Soluble	Solid	300.0	35682
890-3091-2	HA07	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3080-A-25-B MS	Matrix Spike	Soluble	Solid	300.0	35682
890-3080-A-25-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35682

Eurofins Carlsbad

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Job ID: 890-3091-1 SDG: Lea County NM

Client Sample ID: HA07

Project/Site: SEMU BMT

Client: Ensolum

Lab Sample ID: 890-3091-1

Matrix: Solid

Date Collected: 09/27/22 12:00 Date Received: 09/28/22 08:29

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 04:07	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36556	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35770	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 18:17	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 01:45	CH	EET MID

Client Sample ID: HA07 Lab Sample ID: 890-3091-2

Date Collected: 09/27/22 12:05 Matrix: Solid

Date Received: 09/28/22 08:29

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 04:27	AJ	EET MIC
Total/NA	Analysis	Total BTEX		1			36556	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35770	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35652	09/29/22 08:29	DM	EET MIC
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 18:39	SM	EET MIC
Soluble	Leach	DI Leach			5 g	50 mL	35682	09/29/22 12:06	SMC	EET MIC
Soluble	Analysis	300.0		1			35722	09/30/22 01:50	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3091-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	it the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for w
the agency does not of	fer certification.	,	ou s, and governmig dualismy.	ay molado analytoo for v
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	ay morado anarytoo tor v
9 ,		•	, , ,	

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EET MID

ASTM

Method Summary

Client: Ensolum

Job ID: 890-3091-1 SDG: Lea County NM Project/Site: SEMU BMT

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

Protocol References:

DI Leach

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Deionized Water Leaching Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3091-1

SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3091-1	HA07	Solid	09/27/22 12:00	09/28/22 08:29	1
890-3091-2	HA07	Solid	09/27/22 12:05	09/28/22 08:29	2

Relinquished by: (Signature)

PE.88-6

eurofins

Xenco

Environment Testing

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) 794-1298 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No:

www.xenco.com

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	L Adama		Bill to: (If different)	=	loeh	losh Adams			Work Order Comments	ents
r luject manager.	Joseph Augusta		2011 NO. (11 CHILLIAN	1					Brownfields RRC Superfund	RRC Superfund
Company Name: E	Ensolum		Company Name	e	Elisololli	. 9	;		State of Project:	
Address: 3	3122 National Parks Hwy	wy.	Address:		3122	Nation	3122 National Fairs nwy.	s Hwy.	- Petalet	Trapp T level VT
City, State ZIP: C	Carlsbad, NM 88220		City, State ZIP		Caris	oad, N	Carlsbad, NM 88220	0	Level	
	3035178437		Email: jadams@ensolum.com and kjennings@ensolum.com	olum.c	om an	d kjen	nings	@ensolum.com	Deliverables: EDD	Other:
	OFMI I DMT		Tues Avound					ANALYSIS REQUEST		Preservative Codes
Project Name:	OCINIO DINI		15	Pres.					None	NO DI Water: H ₂ O
Project Number:	03D2057013	3	tine 🗆 Rush	Code	Γ				Ivolie	
Project Location:	Lea County, NM	IM Due Date:	ate: 5 Day TAT						Caol: Caol	
Sampler's Name:	Liz Cheli		9	T	Ī				HCL:HC	
PO #	N/A	the lat	the lab, if received by 4:30pm	rs					H ₂ SO ₄ : H ₂	4: H ₂ NaCH: Na
SAMPLE RECEIPT	Temp Blank:	Ves No Wet Ice:	Ice: ((Ye) No	ete	.0)				H₃PO¢: HP	D _€ : HP
Samples Received Intact	2	Thermometer ID:	FORMUL-	ran	300				NaHS	NaHSO4: NABIS
Cooler Custody Seals:	<u> </u>	Correction Factor:	-0.D	Pa	PA:				Na ₂ U ₂	Na ₂ S ₂ C ₃ : NaSC ₃
Sample Custody Seals:		Temperature Reading:	ng:		S (E		1	890-3091 Chain of Custody		Zn Acetate+NaCH: Zn
Total Containers:		Corrected Temperature:	ture: 1-4		RIDE	015)	802		-	NaOH+Ascordic Acid: SAFC
Sample Identification	ication Matrix	Date Time Sampled Sampled	ne Depth Grab/	# of Cont	CHLO	TPH (8	BTEX			Sample Comments
HA07	S	9/27/22 1200	00 1' Gra6/	1	×	×	×		Incide	Incident ID:
HA07	S		Ŋ	1	×	×	×		NAPP	NAPP2217430297
				6					Cost	Cost Code - GA130323
			32	प						AFE000000000471
			2							
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				T	T					
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Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM Texas 11	≥	Sb As	As Ba	Ве В	Cd Ca Cr Co Cu Fe Pb	K Se A	TI Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	Metal(s) to be analy:		TCLP / SPLP 6010: 8RCRA	ĈŖĄ	Sb A	As Ba Be		Cd Cr Co Cu Pb Mn Mo N	Ni Se Ag Ti U Hg: 1631 / 245.1 / /4/0 / /4/1	1 /4/0 / /4/1
Notice: Signature of this doc	ument and relinguishment	of samples constitutes a	valid purchase order fro	n client o	ompan	to Eur	fins Xe	Notice: Stonature of this document and relinguishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors.	rs. It assigns standard terms and conditions	
of service. Eurofins Xenco v	vill be liable only for the cos	st of samples and shall n	ot assume any responsib	lity for a	ny loss	ed to E	enses i	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 ferrolled and service. Eurofins Xenco Amelianne of \$86 on will be applied to each project and a charge of \$8 for each sample submitted to Eurofins Xenco, but not analyzed. These terms	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 service. Eurofine Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	
	2							Delinquished by: (Signati	re) Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Signature)	Received by: (Signature)	Signature)	_	Date,	Date/Time		Relinquished by: (Signatu	ature) Received by. (Signature)	Dato

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3091-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 3091 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.	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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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3091-1

SDG Number: Lea County NM

3DO Number. Lea County NW

List Source: Eurofins Midland
List Number: 2
List Creation: 09/29/22 11:12 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	N/A	

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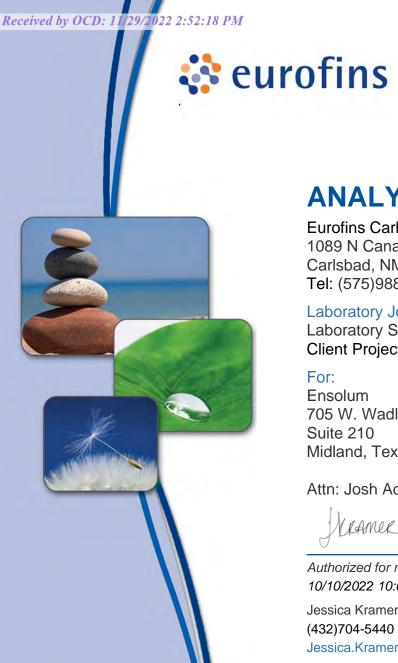
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<6mm (1/4").





.....LINKS

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Have a Question?

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Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3092-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/10/2022 10:09:57 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3092-1
SDG: 03D2057013

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Definitions/Glossary

Client: Ensolum Job ID: 890-3092-1 SDG: 03D2057013 Project/Site: SEMU BMT

Qualifiers

GC VOA

Qualifier	Qualifier Description
*_	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
П	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 Practical Quantitation Limit **PQL**

PRES Presumptive

QC **Quality Control** RER Relative Error Ratio (Radiochemistry)

RLReporting 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
 Job ID: 890-3092-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Job ID: 890-3092-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3092-1

Receipt

The samples were received on 9/28/2022~8:29~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 $1.4^{\circ}C$

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36449 and analytical batch 880-36442 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene Due to a misinjection.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36449/1-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.

GC Semi VOA

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

HPLC/IC

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

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Matrix: Solid

Lab Sample ID: 890-3092-1

Client Sample Results

Client: Ensolum Job ID: 890-3092-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA08

Date Collected: 09/27/22 12:10 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 04:48	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 04:48	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 04:48	1
m-Xylene & p-Xylene	<0.00401	U *- *1	0.00401	mg/Kg		10/08/22 12:21	10/09/22 04:48	1
o-Xylene	<0.00200	U *+ *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 04:48	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/08/22 12:21	10/09/22 04:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130			10/08/22 12:21	10/09/22 04:48	1
1,4-Difluorobenzene (Surr)	78		70 - 130			10/08/22 12:21	10/09/22 04:48	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/10/22 10:40	1
- -								
Made at OWO 40 COAE NIME Divers	I D 0	(DDO) (20)					
Method: SW846 8015 NM - Diese	•	, , ,	•	11-14		Bassassad	Amalamad	D!! F
Analyte	Result	ics (DRO) (Gualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	
Method: SW846 8015 NM - Diese Analyte Total TPH	•	, , ,	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 09/30/22 09:27	
Analyte	Result 69.2	Qualifier	RL 50.0		<u>D</u>	Prepared		
Analyte Total TPH	Result 69.2	Qualifier	RL 50.0		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 69.2	Qualifier nics (DRO) Qualifier	RL 50.0	mg/Kg		<u> </u>	09/30/22 09:27	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 69.2 sel Range Orga Result	Qualifier nics (DRO) Qualifier	RL	mg/Kg		Prepared	09/30/22 09:27 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies	Result 69.2 sel Range Orga Result <50.0	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg		Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 19:00	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 69.2 sel Range Orga Result <50.0 69.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 19:00 09/29/22 19:00	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 69.2 sel Range Orga Result < 50.0 69.2 < 50.0	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 19:00 09/29/22 19:00	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result 69.2	Qualifier nics (DRO) Qualifier U	RL	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared	09/30/22 09:27 Analyzed 09/29/22 19:00 09/29/22 19:00 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result 69.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 19:00 09/29/22 19:00 Analyzed 09/29/22 19:00	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result 69.2	Qualifier nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 08:29 09/29/22 08:29 09/29/22 08:29 Prepared 09/29/22 08:29	09/30/22 09:27 Analyzed 09/29/22 19:00 09/29/22 19:00 Analyzed 09/29/22 19:00	·

Client Sample ID: HA08

Date Collected: 09/27/22 12:15

Date Received: 09/28/22 08:29

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *- *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 05:08	1
Toluene	<0.00198	U *- *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 05:08	1
Ethylbenzene	<0.00198	U *- *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 05:08	1
m-Xylene & p-Xylene	<0.00396	U *- *1	0.00396	mg/Kg		10/08/22 12:21	10/09/22 05:08	1
o-Xylene	<0.00198	U *+ *1	0.00198	mg/Kg		10/08/22 12:21	10/09/22 05:08	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/08/22 12:21	10/09/22 05:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			10/08/22 12:21	10/09/22 05:08	

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Lab Sample ID: 890-3092-2

Matrix: Solid

Sample Depth: 2

Client Sample Results

Client: Ensolum Job ID: 890-3092-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA08

Lab Sample ID: 890-3092-2

Date Collected: 09/27/22 12:15 Date Received: 09/28/22 08:29

Matrix: Solid

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	108	70 - 130	10/08/22 12:21	10/09/22 05:08	1

	V T (I DTEV 0 I I I I
Method: TAL SOP Total BTE	X - Total BIEX Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396 U	0.00396	ma/Ka			10/10/22 10:40	1

Method: SW846	OO4E NIM Discol	Dange Organies	(DBO) (CC)
i welliou. Syvo46	ou io mivi - Diesei	Range Organics	IDROHUGUI

	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	142	50.0	mg/Kg			09/30/22 09:27	1

Method: SW846 8015E	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		09/29/22 08:29	09/29/22 19:22	1
Diesel Range Organics (Over C10-C28)	142		50.0	mg/Kg		09/29/22 08:29	09/29/22 19:22	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:29	09/29/22 19:22	1
Surrogate	%Pacayary	Qualifier	l imite			Propared	Analyzod	Dil Eac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88	70 - 130	09/29/22 08:29	09/29/22 19:22	1
o-Terphenyl	90	70 - 130	09/29/22 08:29	09/29/22 19:22	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

١	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Į	Chloride	126		4.99	mg/Kg			09/30/22 02:10	1

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3092-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recov
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3089-A-1-F MS	Matrix Spike	106	91	
890-3089-A-1-G MSD	Matrix Spike Duplicate	96	81	
890-3092-1	HA08	89	78	
890-3092-2	HA08	97	108	
LCS 880-36449/1-A	Lab Control Sample	171 S1+	117	
LCSD 880-36449/2-A	Lab Control Sample Dup	98	94	
MB 880-36293/5-A	Method Blank	83	92	
MB 880-36449/5-A	Method Blank	87	87	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3092-1	HA08	72	72	
890-3092-2	HA08	88	90	
390-3099-A-1-E MS	Matrix Spike	88	85	
90-3099-A-1-F MSD	Matrix Spike Duplicate	89	84	
.CS 880-35652/2-A	Lab Control Sample	102	103	
LCSD 880-35652/3-A	Lab Control Sample Dup	101	105	
MB 880-35652/1-A	Method Blank	100	108	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3092-1 SDG: 03D2057013 Project/Site: SEMU BMT

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36293/5-A

Matrix: Solid Analysis Batch: 36442 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36293

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	10/06/22 15:	51 10/08/22 15:47	1
1,4-Difluorobenzene (Surr)	92		70 - 130	10/06/22 15:	51 10/08/22 15:47	1

Lab Sample ID: MB 880-36449/5-A

Client Sample ID: Method Blank

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36442 Prep Batch: 36449 мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1

Lab Sample ID: LCS 880-36449/1-A

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36449

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.01884	*_	mg/Kg		19	70 - 130	
Toluene	0.100	0.01832	*_	mg/Kg		18	70 - 130	
Ethylbenzene	0.100	0.02039	*-	mg/Kg		20	70 - 130	
m-Xylene & p-Xylene	0.200	0.05373	*-	mg/Kg		27	70 - 130	
o-Xylene	0.100	0.3177	*+	mg/Kg		318	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1.4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442							Prep	Batch:	36449
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09908	*1	mg/Kg		99	70 - 130	136	35

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Prep Type: Total/NA

QC Sample Results

Client: Ensolum Job ID: 890-3092-1 SDG: 03D2057013 Project/Site: SEMU BMT

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

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442

Client	Sample	ID:	Lab	Control	Sample	Dup

Prep Type: Total/NA Prep Batch: 36449

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08768	*1	mg/Kg		88	70 - 130	131	35
Ethylbenzene	0.100	0.08396	*1	mg/Kg		84	70 - 130	122	35
m-Xylene & p-Xylene	0.200	0.1727	*1	mg/Kg		86	70 - 130	105	35
o-Xylene	0.100	0.09883	*1	mg/Kg		99	70 - 130	105	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-3089-A-1-F MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 36442									Prep B	Batch: 36449
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U *- *1 F1	0.0998	0.04456	F1	mg/Kg		45	70 - 130	
Toluene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
Ethylbenzene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.200	0.07327	F1	mg/Kg		37	70 - 130	
o-Xylene	<0.00202	U *+ *1 F1	0.0998	0.04861	F1	mg/Kg		49	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	91	70 - 130

Lab Sample ID: 890-3089-A-1-G MSD

Matrix: Solid

Analysis Batch: 36442

Cli	ent S	Sample	ID:	Matrix	Spike	Duplicate
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Prep Type: Total/NA Prep Batch: 36449

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U *- *1 F1	0.101	0.03882	F1	mg/Kg		39	70 - 130	14	35
Toluene	<0.00202	U *- *1 F1	0.101	0.04506	F1	mg/Kg		45	70 - 130	1	35
Ethylbenzene	<0.00202	U *- *1 F1	0.101	0.04374	F1	mg/Kg		43	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.201	0.06634	F1	mg/Kg		33	70 - 130	10	35
o-Xylene	<0.00202	U *+ *1 F1	0.101	0.04504	F1	mg/Kg		45	70 - 130	8	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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

Lab Sample ID: MB 880-35652/1-A

Matrix: Solid

Analysis Batch: 35641

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

Prep Batch: 35652

мв мв Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 09/29/22 08:29 09/29/22 09:45 Gasoline Range Organics (GRO)-C6-C10

Client: Ensolum Job ID: 890-3092-1
Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: MB 880-35652/1-A Matrix: Solid

Analysis Batch: 35641

Diesel Range Organics (Over

Analyte

C10-C28)

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

Prep Batch: 35652

 MB
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 <50.0</td>
 U
 50.0
 mg/Kg
 09/29/22 08:29
 09/29/22 09:45
 1

OII Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 09/29/22 08:29 09/29/22 09:45

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 100 70 - 130 09/29/22 08:29 09/29/22 09:45 108 70 - 130 09/29/22 08:29 09/29/22 09:45 o-Terphenyl

Lab Sample ID: LCS 880-35652/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 35641

Prep Type: Total/NA

Prep Batch: 35652

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 951.3 95 70 - 130 mg/Kg (GRO)-C6-C10 1000 925.7 Diesel Range Organics (Over 93 70 - 130mg/Kg C10-C28)

C10-C20)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-35652/3-A

Matrix: Solid

Analysis Batch: 35641

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

Prep Batch: 35652

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Gasoline Range Organics 1000 1011 101 70 - 130 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 927.4 mg/Kg 93 70 - 130 O 20 C10-C28)

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 101
 70 - 130

 o-Terphenyl
 105
 70 - 130

Lab Sample ID: 890-3099-A-1-E MS

Matrix: Solid

Analysis Batch: 35641

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35652

Rec Balcii. 33032

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	215		998	1232		mg/Kg		102	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	250		998	1057		mg/Kg		81	70 - 130	
C40 C30)										

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	85		70 - 130

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4

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10

12

Job ID: 890-3092-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Client Sample ID: Matrix Spike Duplicate

Lab Sample ID: 890-3099-A-1-F MSD **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 35641 Prep Batch: 35652

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	215		999	1237		mg/Kg		102	70 - 130	0	20
(GRO)-C6-C10											
Diesel Range Organics (Over	250		999	1062		mg/Kg		81	70 - 130	0	20

C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 89 o-Terphenyl 84 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722 мв мв

Result Qualifier RL Unit Analyte Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 09/30/22 00:33

Lab Sample ID: LCS 880-35682/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	248.7		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-35682/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 249.0 100 90 - 110 mg/Kg

Lab Sample ID: 890-3092-1 MS Client Sample ID: HA08 **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	64.0		2/10	300.7		ma/Ka		90	90 110	

Lab Sample ID: 890-3092-1 MSD Client Sample ID: HA08 **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	64.0		249	309.1		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3092-1 SDG: 03D2057013

GC VOA

Prep Batch: 36293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36293/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3092-1	HA08	Total/NA	Solid	8021B	36449
890-3092-2	HA08	Total/NA	Solid	8021B	36449
MB 880-36293/5-A	Method Blank	Total/NA	Solid	8021B	36293
MB 880-36449/5-A	Method Blank	Total/NA	Solid	8021B	36449
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	8021B	36449
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36449
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	36449
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36449

Prep Batch: 36449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3092-1	HA08	Total/NA	Solid	5035	
890-3092-2	HA08	Total/NA	Solid	5035	
MB 880-36449/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3092-1	HA08	Total/NA	Solid	Total BTEX	
890-3092-2	HA08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3092-1	HA08	Total/NA	Solid	8015B NM	35652
890-3092-2	HA08	Total/NA	Solid	8015B NM	35652
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015B NM	35652
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35652
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35652
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	35652
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35652

Prep Batch: 35652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3092-1	HA08	Total/NA	Solid	8015NM Prep	
890-3092-2	HA08	Total/NA	Solid	8015NM Prep	
MB 880-35652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3099-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3099-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

 Client: Ensolum
 Job ID: 890-3092-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

GC Semi VOA

Analysis Batch: 35771

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	890-3092-1	HA08	Total/NA	Solid	8015 NM	
Į	890-3092-2	HA08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3092-1	HA08	Soluble	Solid	DI Leach	
890-3092-2	HA08	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3092-1 MS	HA08	Soluble	Solid	DI Leach	
890-3092-1 MSD	HA08	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3092-1	HA08	Soluble	Solid	300.0	35682
890-3092-2	HA08	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3092-1 MS	HA08	Soluble	Solid	300.0	35682
890-3092-1 MSD	HA08	Soluble	Solid	300.0	35682

Eurofins Carlsbad

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Lab Chronicle

Client: Ensolum Job ID: 890-3092-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA08

Date Received: 09/28/22 08:29

Lab Sample ID: 890-3092-1 Date Collected: 09/27/22 12:10

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 04:48	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36557	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35771	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35652	09/29/22 08:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 19:00	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 01:55	CH	EET MID

Client Sample ID: HA08 Lab Sample ID: 890-3092-2

Date Collected: 09/27/22 12:15 Matrix: Solid

Date Received: 09/28/22 08:29

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 05:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36557	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35771	09/30/22 09:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35652	09/29/22 08:29	DM	EET MIC
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 19:22	SM	EET MIC
Soluble	Leach	DI Leach			5.01 g	50 mL	35682	09/29/22 12:06	SMC	EET MIC
Soluble	Analysis	300.0		1			35722	09/30/22 02:10	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3092-1 Project/Site: SEMU BMT SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, but	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	• •	it the laboratory is not certific	su by the governing authority. This list his	ay include analytes to
,	• •	Matrix	Analyte	ay include analytes to
the agency does not of	fer certification.	,	, , ,	ay illoude allalytes lo

Method Summary

Client: Ensolum Job ID: 890-3092-1
Project/Site: SEMU BMT SDG: 03D2057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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

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Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3092-1

SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3092-1	HA08	Solid	09/27/22 12:10	09/28/22 08:29	1
890-3092-2	HA08	Solid	09/27/22 12:15	09/28/22 08:29	2

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Relinquished by:

(Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev. 2020 :

eurofins: Xenco **Environment Testing**

Project Manager:

Company Name:

Chain of Custody

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, Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

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Josh Adams				Bill to: (if	different)		Josh A	dams									Wo	rk Orc	er Co	mment	S	
nsolum				Compan	y Name:		Ensolu	3						Prog	am: U:	ST/PS		~P□B	rownfi	elds 🗌	RRC] Superfund [
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arlsbad, NM 88	220			City, Star	te ZIP:		Carlsb	ad, NM	88220					Repo	ting: L	evel II	Leve	=	PST/	JST	TRRP	Level IVL
3035178437			Email:	jadams	@ensol	um.co	m and	d kjenn	ings@e	ensolu	m.com			Delive	rables	EDD		≥	DaPT		Other:	
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roject Manager: Joompany Name: Erroddress: 31 ity, State ZIP: Cahone: 30 hone: 30 roject Number: roject Number: Received Intaramples Received Intarample Custody Seals: ample Custody Seals: btal Containers: Sample Identifice: Signature of this docustory and Seals: Service. Eurofins Xence we Burofins Xence of Aminimum.	Ensolum 3122 National Pa Carlsbad, NM 88 3035178437 SEML 03D20 Lea Cou Liz (Ves No Is: Yes No Is: Yes No Is: Yes No Is: O0.8 / 60: M Metal(s) to be Ind Metal(s) to be	Ensolum 3122 National Parks Hw Carlsbad, NM 88220 3035178437 SEMU BMT 03D2057013 Lea County, NN Liz Cheli N/A Tresp Blank: (Yes No N/A) (Is: Yes No N/A) (I	roject Manager: Josh Agams ompany Name: Ensolum ddress: 3122 National Parks Hwy. ity, State ZIP: Carlsbad, NM 88220 hone: 3035178437 roject Number: 03D2057013 roject Location: Lea County, NM ampler's Name: Liz Cheli 0 #: N/A AMPLE RECEIPT Temp Blank: Ves No VIA Correction Fooler Custody Seals: Yes No VIA Correction Fooler Custody Seals: Yes No VIA Correction Fooler Custody Seals: Yes No VIA Corrected Temple Custody Seals: Yes No VIA Corrected Templed HA08 HA08 Sample Identification Matrix Sampled HA08 S 9/27/22 Fircle Method(s) and Metal(s) to be analyzed Eurofins Xenco will be liable only for the cost of samples conservice. Eurofins Xenco will be liable only for the cost of samples conservice.	ongerly Mame: Ensolum Ongerly Mame: Carlsbad, NM 88220 Ongerly Mame: SEMU BMT Ongerl Name: Lac County, NM Ongerl Name	Insolum Ins	IZ2 National Parks Hwy. IZ35178437 I	SEN Address Company Name:	ISSI Address: IZ2 National Parks Hwy. IZ2 National Parks Hwy. IZ2 National Parks Hwy. IZ2 National Parks Hwy. IZ3 National Parks Hwy. IZ4 National Parks Hwy. IZ5 National Parks No. IZ5 National Parks No. IZ5 National Parks No. IZ5 National Parks Hwy. IZ5 Natio	Insolum Ins	Insolum Ins	Isolum Company Name Company Nam	Isolum Isolum Isolum Incational Parks Hwy. Company Name: Company Name:	Inclum Inclum	Insolum Ins	Coder Martager Coder Advants Coder Martager Coder Advants Coder Martager Coder Advants Coder State Adv.	Standard Standard	Insolum Insolum Parks Hwy. Address Company Name: Ensolum	Insolum Ins		Program: UST/PST PRP Brown State of Project: Reporting: Level III Level III PST. Deliverables: EDD ADaPT UEST Custody Custody Custody Custody Custody Hg: 1631/ It assigns standard terms and conditions Business beyond the control It assigns standard terms and conditions Business beyond the control It assigns standard terms and conditions Business beyond the control It assigns standard terms and conditions		wnfields wnfields wnfields ST/UST IPT IP

Sampler's Name:

Project Location: Project Number: Project Name:

Phone: City, State ZIP:

SAMPLE RECEIPT

Cooler Custody Seals: Samples Received Intact:

otal Containers:

Relinquished by: (Signature)

Received by: (Signature)

9.28.22

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020 :

eurofins **Environment Testing** Xenco

Chain of Custody

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

Work Order No:

Project Manager: Jo	Josh Adams				Bill to: (if different)	rent)	Josh	Josh Adams			Wo	Work Order Comments
Company Name: En	Ensolum				Company Name	me:	Ensolum	m			Program: UST/PST PI	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
	3122 National Parks Hwy	ırks Hwy	•		Address:		3122	3122 National Parks Hwy	al Park	Ŋ.	State of Project:	
e ZIP:	Carlsbad, NM 88220	220			City, State ZIP	P	Carls	Carlsbad, NM 88220	M 8822		Reporting: Level II Leve	Reporting: Level II Level III PST/UST TRRP Level IV
	3035178437			Email:	Email: jadams@ensolum.com and kjennings@ensolum.com	solum.	com an	nd kjen	nings	nsolum.com	Deliverables: EDD	ADaPT Chher:
Project Name:	SEMU BMT	BMT		Turn	Turn Around	-				ANALYSIS RE	EQUEST	Preservative Codes
Project Number:	03D2057013	57013		Routine	Rush	Pres.						None: NO DI Water: H ₂ O
Project Location:	Lea County, NM	nty, NM	_	Due Date:	5 Day TAT							Cool: Cool MeOH: Me
Sampler's Name:	Liz Cheli	heli		TAT starts the	TAT starts the day received by	ক						HCL: HC HNO ₃ : HN
PO #	N/A	A	9	the lab, if rece	the lab, if received by 4:30pm	Ь.	_					H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank:	_	es No	Wet Ice:	((Ye) No	nete	.0)					H ₃ PO ₄ : HP
Samples Received Intact:	(Ye)	No Th	Thermometer ID:	·ID: 7	JW 20-	ıran	300					NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No	Co Co	Correction Factor:	ictor:	5	Pá	PA:					Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No	N/A Te	Temperature Reading:	Reading:	-60	L	S (E			890-3091 Chain	n of Custody	Zn Acetate+NaOH: Zn
Total Containers:		00	Corrected Temperature:	mperature:	1.0	L	RIDE	015)	802 ⁻			NaOH+Ascorbic Acid: SAPC
Sample Identification		Matrix S	Date Sampled	Time Sampled	Depth Grab/	np Cont	CHLOR	TPH (8	BTEX (Sample Comments
HA07	S		9/27/22	1200	1' Grad/	1	×	×	×			Incident ID:
HA07	S		9/27/22	1205	2' grab/	ab/ 1	×	×	×			NAPP2217430297
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Circle Method(s) and Metal(s) to be analyzed	Metal(s) to be a	analyzed		TCLP / SF	-	8RCRA	Sb /	Sb As Ba Be	Be C	Cd Cr Co Cu Pb Mn Mo	Ni Se Ag TI U	Hg: 1631 / 245.1 / 7470 / 7471
: Signature of this docu	ument and relinquis	hment of s	amples const	itutes a valid p	urchase order f	rom client	compan	y to Euro	ofins Xe	ts affiliates and subcontracto	volice: 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	conditions
vice. Eurofins Xenco w viins Xenco. A minimu	vill be liable only for im charge of \$85.00	will be app	samples and iled to each p	shall not assu project and a ch	me any respons large of \$5 for e	ach samp	any loss	es or exp	penses i	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 of expenses incurred by the client if such losses ferring the control of the control	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 in the control of 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 in the cost of samples and shall not assume the cost of samples and samples are cost of samples and samples and samples and samples and samples are considered and samples and samples and samples are considered and samples and samples are considered and samples and samples are considered and samples are considered and s	sly negotiated.

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3092-1 SDG Number: 03D2057013

List Source: Eurofins Carlsbad

Login Number: 3092 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.	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	N/A	

<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum Job Numl

Job Number: 890-3092-1 SDG Number: 03D2057013

Login Number: 3092
List Source: Eurofins Midland
List Number: 2
List Creation: 09/29/22 11:12 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	N/A	

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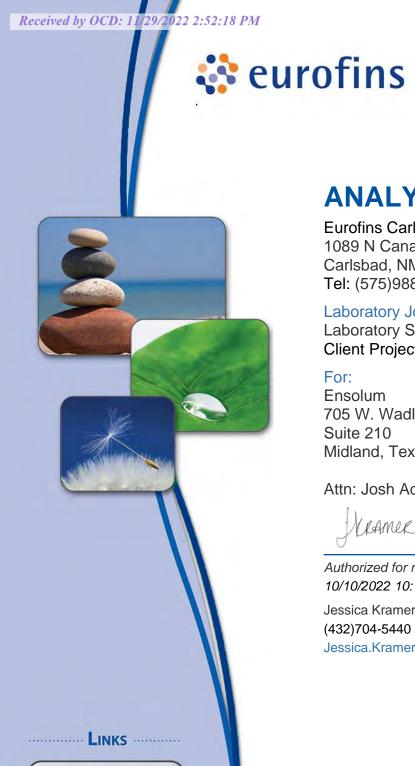
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<6mm (1/4").





Review your project results through

EOL

Have a Question?

www.eurofinsus.com/Env

Released to Imaging: 1/4/2023 11:44:06 AM

Visit us at:

Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3093-1

Laboratory Sample Delivery Group: 0332057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/10/2022 10:10:16 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

This report has been electronically signed and authorized by the signatory. Electronic

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3093-1
SDG: 0332057013

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Definitions/Glossary

Client: Ensolum Job ID: 890-3093-1 Project/Site: SEMU BMT SDG: 0332057013

Qualifiers

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G	L	v	u	А

Qualifier	Qualifier Description					
*_	LCS and/or LCSD is outside acceptance limits, low biased.					
*+	LCS and/or LCSD is outside acceptance limits, high biased.					
*1	LCS/LCSD RPD exceeds control limits.					
F1	MS and/or MSD recovery exceeds control limits.					
S1+	Surrogate recovery exceeds control limits, high biased.					
U	Indicates the analyte was analyzed for but not detected.					

GC Semi VOA

Qualifier	Quaimer 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
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) EPA recommended "Maximum Contaminant Level" MCL

MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC MDL Method Detection Limit MI

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)

Negative / Absent NEG POS Positive / Present Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

Job ID: 890-3093-1 Client: Ensolum Project/Site: SEMU BMT SDG: 0332057013

Job ID: 890-3093-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3093-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36449 and analytical batch 880-36442 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene Due to a misinjection.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36449/1-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.

GC Semi VOA

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35711 and analytical batch 880-35736 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Matrix: Solid

Lab Sample ID: 890-3093-1

Client Sample Results

Client: Ensolum Job ID: 890-3093-1 Project/Site: SEMU BMT SDG: 0332057013

Client Sample ID: HA09

Date Collected: 09/27/22 12:30 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 05:28	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 05:28	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 05:28	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399	mg/Kg		10/08/22 12:21	10/09/22 05:28	1
o-Xylene	<0.00200	U *+ *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 05:28	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/08/22 12:21	10/09/22 05:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130			10/08/22 12:21	10/09/22 05:28	1
1,4-Difluorobenzene (Surr)	77		70 - 130			10/08/22 12:21	10/09/22 05:28	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	mg/Kg			10/10/22 10:40	1
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (Qualifier	GC)	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	81.9		50.0	mg/Kg			10/03/22 11:24	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (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		09/29/22 13:24	09/30/22 23:06	1
Diesel Range Organics (Over C10-C28)	81.9		50.0	mg/Kg		09/29/22 13:24	09/30/22 23:06	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 23:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			09/29/22 13:24	09/30/22 23:06	1
o-Terphenyl	100		70 - 130			09/29/22 13:24	09/30/22 23:06	1
Method: MCAWW 300.0 - Anions								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.2		4.95	mg/Kg			09/30/22 02:15	1

Client Sample ID: HA09

Date Collected: 09/27/22 12:35

Date Received: 09/28/22 08:29

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 05:49	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 05:49	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 05:49	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		10/08/22 12:21	10/09/22 05:49	1
o-Xylene	<0.00199	U *+ *1	0.00199	mg/Kg		10/08/22 12:21	10/09/22 05:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/08/22 12:21	10/09/22 05:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130			10/08/22 12:21	10/09/22 05:49	1

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Lab Sample ID: 890-3093-2

Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Sample Depth: 2

Client Sample Results

Client: Ensolum Job ID: 890-3093-1 Project/Site: SEMU BMT SDG: 0332057013

Client Sample ID: HA09 Lab Sample ID: 890-3093-2

Matrix: Solid

Date Collected: 09/27/22 12:35 Date Received: 09/28/22 08:29

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	83		70 - 130			10/08/22 12:21	10/09/22 05:49	
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/10/22 10:40	
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	77.6		49.8	mg/Kg			10/03/22 11:24	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		09/29/22 13:24	09/30/22 23:28	
Diesel Range Organics (Over C10-C28)	77.6		49.8	mg/Kg		09/29/22 13:24	09/30/22 23:28	
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/29/22 13:24	09/30/22 23:28	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
Surrogate 1-Chlorooctane	%Recovery	Qualifier	Limits 70 - 130			Prepared 09/29/22 13:24	Analyzed 09/30/22 23:28	Dil Fa

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200	4.96	mg/Kg			09/30/22 02:29	1

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3093-1

 Project/Site: SEMU BMT
 SDG: 0332057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3089-A-1-F MS	Matrix Spike	106	91	
890-3089-A-1-G MSD	Matrix Spike Duplicate	96	81	
890-3093-1	HA09	89	77	
890-3093-2	HA09	79	83	
LCS 880-36449/1-A	Lab Control Sample	171 S1+	117	
LCSD 880-36449/2-A	Lab Control Sample Dup	98	94	
MB 880-36293/5-A	Method Blank	83	92	
MB 880-36449/5-A	Method Blank	87	87	

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1001	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3080-A-21-C MS	Matrix Spike	106	89	
390-3080-A-21-D MSD	Matrix Spike Duplicate	96	80	
890-3093-1	HA09	100	100	
390-3093-2	HA09	113	113	
_CS 880-35711/2-A	Lab Control Sample	118	103	
LCSD 880-35711/3-A	Lab Control Sample Dup	109	110	
MB 880-35711/1-A	Method Blank	119	109	

Surrogate Legend

1CO = 1-Chlorooctane

DFBZ = 1,4-Difluorobenzene (Surr)

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3093-1 SDG: 0332057013 Project/Site: SEMU BMT

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36293/5-A

Analysis Batch: 36442

Matrix: Solid

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

Prep Batch: 36293

	IIID	1410						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1

мв мв

MR MR

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83	70 - 130	10/06/22 15:51	10/08/22 15:47	1
1,4-Difluorobenzene (Surr)	92	70 - 130	10/06/22 15:51	10/08/22 15:47	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36449

Analysis Batch: 36442 мв мв

Lab Sample ID: MB 880-36449/5-A

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	10/08/22 12:2	10/09/22 02:23	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/08/22 12:2	1 10/09/22 02:23	1

Lab Sample ID: LCS 880-36449/1-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 36442

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36449

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.01884	*_	mg/Kg		19	70 - 130	
Toluene	0.100	0.01832	*_	mg/Kg		18	70 - 130	
Ethylbenzene	0.100	0.02039	*_	mg/Kg		20	70 - 130	
m-Xylene & p-Xylene	0.200	0.05373	*_	mg/Kg		27	70 - 130	
o-Xylene	0.100	0.3177	*+	mg/Kg		318	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1.4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442							Prep	Batch:	36449
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09908	*1	mg/Kg		99	70 - 130	136	35

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Prep Type: Total/NA

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QC Sample Results

 Client: Ensolum
 Job ID: 890-3093-1

 Project/Site: SEMU BMT
 SDG: 0332057013

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

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442

Spike

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

Prep Batch: 36449

RPD

RPD

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08768	*1	mg/Kg		88	70 - 130	131	35
Ethylbenzene	0.100	0.08396	*1	mg/Kg		84	70 - 130	122	35
m-Xylene & p-Xylene	0.200	0.1727	*1	mg/Kg		86	70 - 130	105	35
o-Xylene	0.100	0.09883	*1	mg/Kg		99	70 - 130	105	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-3089-A-1-F MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36442 Prep Batch: 36449

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U *- *1 F1	0.0998	0.04456	F1	mg/Kg		45	70 - 130	
Toluene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
Ethylbenzene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.200	0.07327	F1	mg/Kg		37	70 - 130	
o-Xylene	<0.00202	U *+ *1 F1	0.0998	0.04861	F1	mg/Kg		49	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 890-3089-A-1-G MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 36442 Prep Batch: 36449

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U *- *1 F1	0.101	0.03882	F1	mg/Kg		39	70 - 130	14	35
Toluene	<0.00202	U *- *1 F1	0.101	0.04506	F1	mg/Kg		45	70 - 130	1	35
Ethylbenzene	<0.00202	U *- *1 F1	0.101	0.04374	F1	mg/Kg		43	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.201	0.06634	F1	mg/Kg		33	70 - 130	10	35
o-Xylene	<0.00202	U *+ *1 F1	0.101	0.04504	F1	mg/Kg		45	70 - 130	8	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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

Lab Sample ID: MB 880-35711/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 35736

MB MB

Analyte Result Qualifier RI Unit D Prepared Analyzed Dil Fac

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Gasoline Range Organics
 <50.0</td>
 U
 50.0
 mg/Kg
 09/29/22 13:24
 09/30/22 19:10
 1

 (GRO)-C6-C10
 (GRO)-C6-C10

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1

3

4

6

1

9

16

14

Jimo Gariobad

Client: Ensolum Job ID: 890-3093-1 SDG: 0332057013 Project/Site: SEMU BMT

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

Lab Sample ID: MB 880-35711/1-A **Matrix: Solid**

Analysis Batch: 35736

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 35711

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1

MB MB

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	119		70 - 130	09/29/22 13:24	09/30/22 19:10	1
l	o-Terphenyl	109		70 - 130	09/29/22 13:24	09/30/22 19:10	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-35711/2-A Matrix: Solid Prep Type: Total/NA Prep Batch: 35711 Analysis Batch: 35736

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits 1000 825.2

Gasoline Range Organics 83 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 990.0 mg/Kg 99 70 - 130

C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-35711/3-A

Matrix: Solid

Analysis Batch: 35736

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35711

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	929.3		mg/Kg		93	70 - 130	12	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1053		mg/Kg		105	70 - 130	6	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-3080-A-21-C MS

Matrix: Solid

Analysis Batch: 35736

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35711

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U F1	998	661.8	F1	mg/Kg		66	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	998	955.8		mg/Kg		93	70 - 130	
C10 C20)										

C10-C28)

	MS	WS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	89		70 - 130

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10/10/2022

QC Sample Results

Job ID: 890-3093-1 Client: Ensolum Project/Site: SEMU BMT SDG: 0332057013

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

Lab Sample ID: 890-3080-A-21-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 35736 Prep Type: Total/NA Prep Batch: 35711

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

Sample Sample MSD MSD RPD Spike Analyte Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Unit D Gasoline Range Organics <50.0 U F1 999 693.2 F1 mg/Kg 69 70 - 130 5 20 (GRO)-C6-C10 999 867.0 84 Diesel Range Organics (Over <50.0 U mg/Kg 70 - 13010 20

C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 96 o-Terphenyl 80 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

MB MB

Result Qualifier RL Unit Analyte D Prepared Analyzed Dil Fac Chloride <5.00 5.00 mg/Kg 09/30/22 00:33 U

Lab Sample ID: LCS 880-35682/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 90 - 110 248.7 mg/Kg

Lab Sample ID: LCSD 880-35682/3-A

Matrix: Solid

Analysis Batch: 35722

LCSD LCSD RPD Spike %Rec Analyte Added Qualifier Unit %Rec RPD Result Limits Limit Chloride 250 249.0 100 90 - 110 mg/Kg 0

Lab Sample ID: 890-3092-A-1-C MS

Matrix: Solid

Analysis Batch: 35722

Sample Sample Spike MS MS %Rec Qualifier Added Qualifier Analyte Result Result %Rec Limits Unit Chloride 249 90 - 110 64.0 309.7 mg/Kg

Lab Sample ID: 890-3092-A-1-D MSD

Matrix: Solid

Analysis Batch: 35722

Sample Sample Spike MSD MSD %Rec RPD Qualifier Added Result Result Qualifier %Rec Limits RPD Limit Analyte Unit D 249 Chloride 64.0 309.1 99 20 mg/Kg 90 - 1100

QC Association Summary

Client: Ensolum Project/Site: SEMU BMT

Job ID: 890-3093-1 SDG: 0332057013

GC VOA

Prep Batch: 36293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36293/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	8021B	36449
890-3093-2	HA09	Total/NA	Solid	8021B	36449
MB 880-36293/5-A	Method Blank	Total/NA	Solid	8021B	36293
MB 880-36449/5-A	Method Blank	Total/NA	Solid	8021B	36449
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	8021B	36449
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36449
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	36449
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36449

Prep Batch: 36449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	5035	
890-3093-2	HA09	Total/NA	Solid	5035	
MB 880-36449/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	Total BTEX	
890-3093-2	HA09	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 35711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	8015NM Prep	
890-3093-2	HA09	Total/NA	Solid	8015NM Prep	
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	8015B NM	35711
890-3093-2	HA09	Total/NA	Solid	8015B NM	35711
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015B NM	35711
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35711
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35711
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35711
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35711

QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3093-1
SDG: 0332057013

GC Semi VOA

Analysis Batch: 35959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	8015 NM	
890-3093-2	HA09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Soluble	Solid	DI Leach	
890-3093-2	HA09	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3092-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3092-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Soluble	Solid	300.0	35682
890-3093-2	HA09	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3092-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	35682
890-3092-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35682

Eurofins Carlsbad

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Lab Chronicle

Client: Ensolum Job ID: 890-3093-1 Project/Site: SEMU BMT SDG: 0332057013

Client Sample ID: HA09

Date Received: 09/28/22 08:29

Lab Sample ID: 890-3093-1 Date Collected: 09/27/22 12:30 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 05:28	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36558	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35959	10/03/22 11:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35711	09/29/22 13:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35736	09/30/22 23:06	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 02:15	CH	EET MID

Lab Sample ID: 890-3093-2 **Client Sample ID: HA09**

Date Collected: 09/27/22 12:35 **Matrix: Solid**

Date Received: 09/28/22 08:29

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 5.03 g 5 mL 36449 10/08/22 12:21 MNR EET MID Total/NA 8021B 5 mL 10/09/22 05:49 **EET MID** Analysis 1 5 mL 36442 AJ Total/NA Total BTEX 36558 10/10/22 10:40 Analysis 1 A.I **EET MID** Total/NA Analysis 8015 NM 35959 10/03/22 11:24 SM **EET MID** 10 mL 35711 Total/NA Prep 8015NM Prep 10.04 g 09/29/22 13:24 DM **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 35736 09/30/22 23:28 ΑJ **EET MID** Soluble 5.04 g Leach DI Leach 50 mL 35682 09/29/22 12:06 SMC **EET MID** Soluble Analysis 300.0 35722 09/30/22 02:29 СН **EET MID**

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT

SDG: 0332057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, but	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	• •	it the laboratory is not certific	su by the governing authority. This list his	ay include analytes to
,	• •	Matrix	Analyte	ay include analytes to
the agency does not of	fer certification.	,	, , ,	ay illoude allalytes lo

Released to Imaging: 1/4/2023 11:44:06 AM

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Method Summary

Client: Ensolum Job ID: 890-3093-1 Project/Site: SEMU BMT SDG: 0332057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3093-1

SDG: 0332057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3093-1	HA09	Solid	09/27/22 12:30	09/28/22 08:29	1
890-3093-2	HA09	Solid	09/27/22 12:35	09/28/22 08:29	2

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Total San Pro City Pro Can San Pro Cox San

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

Work Order No:

Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Xenco

Environment Testing

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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	е	Date/Time	0	ure)	Received by: (Signature)	Received	iture)	oy: (Signa	Relinquished by: (Signature)
	Il be enforced unless previously negotiated.	rofins 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 en	Eurofins Xer	ibmitted to	ample su	arge of \$5 for each s	project and a ch	applied to each	rge of \$85.00 will be	inimum cha	ofins Xenco, An
	s standard terms and conditions circumstances beyond the control	e: 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 are constituted as a samples and shall not sesume any responsibility for any loases or expenses incurred by the client if such loases are due to circumstances beyond the control	urofins Xenco	pany to E	client con	archase order from o	titutes a valid pu	of samples cons	and relinquishment	s document	Signature of thi
1 / 7470 / 7471	Se Ag TI U Hg: 1631/245.1/7470/7471	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se /	a Be Cd	b As B	;RA S	TCLP / SPLP 6010: 8RCRA S	TCLP / SF	zed	le Method(s) and Metal(s) to be analyzed	and Meta	Method(s)
TI Sn U V Zn	Ni K Se A	B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo		As Ba Be	Al Sb	OM Texas 11	8RCRA 13PPM	8F	200.8 / 6020:		otal 200.7 / 6010
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Incident ID:	Incid		×	×	_	1' Grab/	1230	9/27/22	S	HA09	유
Sample Comments			втех (TPH (8	# of Cont	Depth Grab/	Time Sampled	Date Sampled	n Matrix	entificatio	Sample Identification
NaOH+Ascorbic Acid: SAPC	Nao		802			+ +	mperature:	Corrected Temperature:			d Containers:
Zn Acetate+NaOH: Zn		890-3093 Chain of Custody		S (E		0	Reading:	WA Temperature Reading:	Yes No NA		ple Custody Seals:
Na ₂ S ₂ O ₃ : NaSO ₃	Na ₂ S			PA:		-0.∂		Correction Factor:	Yes No MA		iler Custody Seals:
NaHSO ₄ : NABIS	Nati			300		FOOMW	1	Thermometer ID:		Intact:	ples Received Intact:
H ₃ PO ₄ : HP	H ₃ PC			.0)	nete	(Kgs No	Wet Ice:	Wes No	Temp Blank:	IPT	MPLE RECEIPT
H ₂ S0 ₄ : H ₂ NaOH: Na	H ₂ SC				rs	the lab, if received by 4:30pm	the lab, if rece)	N/A		*
: HC HNO3: HN	HCL: HC					TAT starts the day received by	TAT starts the		Liz Cheli	1	pler's Name:
Cool: Cool MeOH: Me	Cool			_		5 Day TAT	Due Date:		Lea County, NM		ect Location:
None: NO DI Water: H ₂ O	None				Code	Rush	✓ Routine		03D2057013		ect Number:
Preservative Codes		ANALYSIS REQUEST				Turn Around	Turn ,		SEMU BMT		ect Name:
Other:	Deliverables: EDD		ennings@e	and kje	ım.con	Email: jadams@ensolum.com and kjennings@ensolum.com	Email:		78437	3035178437	ne:
TRRP Level IVI	Reporting: Level II PST/UST TRRP Level IV	Reporti	Carlsbad, NM 88220	arlsbad,	C	City, State ZIP:			Carlsbad, NM 88220	Carlsb	State ZIP:
]	State of Project:		3122 National Parks Hwy.	122 Natio	ω	Address:		wy.	3122 National Parks Hwy.	3122 N	ress:
s RRC Superfund	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	Progra		Ensolum	m	Company Name:			3	Ensolum	npany Name:
nents	Work Order Comments		IS.	Josh Adams	٦	Bill to: (if different)			dams	Josh Adams	ect Manager:
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Chain of Custody

Manager: Jo	Josh Adams	Hobbs Bill to: (if different)	bbs, NM (575	75) 392-7550 Josh Adams	0, Carlsba	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 fferent) Josh Adams	www.xe	www.xenco.com Page
	Ensolum	Company Name:		Ensolum			Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐	□ Brownfields □ RF
	3122 National Parks Hwy.	Address:		3122 National Parks Hwy.	nal Parks		State of Project:	
ate ZIP: Ca	Carlsbad, NM 88220	City, State ZIP:		Carlsbad, NM 88220	IM 88220		Reporting: Level II Level III PST/UST TRRP	III PST/UST TR
	3035178437	Emall: jadams@ensolum.com and kiennings@ensolum.com	solum.com	and kje	nnings@		Deliverables: EDD	ADaPT Other:
Name:	SEMU BMT	Turn Around				ANALYSIS REQUES:	JEST	Preservative Codes
Number:	03D2057013	☑ Routine ☐ Rush	Pres. Code					None: NO
Location:	Lea County, NM	Due Date: 5 Day TAT		_				Cool: Cool
r's Name:	Liz Cheli	@	¥				_	HCL: HC
	N/A	the lab, if received by 4:30pm	-	-				H ₂ SO ₄ : H ₂
LE RECEIPT	Temp Blank: Kes	No Wet ice: Wes No	nete					H₃PO₄: HP
s Received Intact:	Kes No	Thermometer ID: WMOOT		300				NaHSO4: NABIS
Custody Seals:	Yes No MA			PA:				Na ₂ S ₂ O ₃ : NaSO ₃
Custody Seals:	Yes No WA Tempera	Temperature Reading: 1 - 0	- I		1	890-3093 Chain of Custody	Custody	Zn Acetate+NaCH: Zn
ontainers:	Correcte	Corrected Temperature: 1 4		_	802	-	-	NaOH+Ascorbic Acid: SAFC
Sample Identification	cation Matrix Sampled	Time Depth Comp	# of Cont	TPH (8	BTEX			Sample Comments
HA09	S 9/27/22	/22 1230 1' Grab/	-	×	×			Incident ID:
НА09		/22 1235 2' Grab/	_	×	×			NAPP2217430297
								Cost Code - GA130323
								AFE000000000471
				H				
200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb	As Ba	Be B	Cd Ca Cr Co Cu Fe Pb N	Mg Mn Mo Ni K Se Ag	SiO2 Na Sr Tl Sn U V Zn
ethod(s) and	Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010:	8RCRA St	As Ba	Be Co	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se	Ag TI U	Hg: 1631 / 245.1 / 7470 / 7471
nature of this doc	ignature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns the company to Eurofins Xenco, its affiliates and subcontractors. It assigns the company to Eurofins Xenco, its affiliates and subcontractors. It assigns the company to Eurofins Xenco, its affiliates and subcontractors.	s constitutes a valid purchase order i	rom client com	pany to Eu	rofins Xen	o, its affiliates and subcontractors. I	t assigns standard terms and conditions due to circumstances beyond the contro	nditions e control
Eurofins Xenco v Xenco. A minimu	 Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses of expenses incurred by the criefit is such losses are use to current insured and incurred by the criefit is such losses are use to current insured and incurred by the criefit is such losses are use to current insured and incurred by the criefit is such as a policy for such as a p	les and shall not assume any respone each project and a charge of \$5 for e	ach sample su	bmitted to	Eurofins X	urred by the client if such losses are noo, but not analyzed. These terms v	ill be enforced unless previously negotiated.	negotiated.
nquished by: (Signature)	Signature) — Rece	Received by: (Signature)	D	Date/Time		Relinquished by: (Signature)	e) Received by: (Signature)	(Signature)

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3093-1 SDG Number: 0332057013

List Source: Eurofins Carlsbad

Login Number: 3093 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.	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	

Page 20 of 21

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3093-1 SDG Number: 0332057013

Login Number: 3093 **List Source: Eurofins Midland** List Number: 2

List Creation: 09/29/22 11:12 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	N/A	

<6mm (1/4").



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Released to Imaging: 1/4/2023 11:44:06 AM

Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3093-2

Laboratory Sample Delivery Group: 0332057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/3/2022 10:57:59 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3093-2
SDG: 0332057013

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Definitions/Glossary

Job ID: 890-3093-2 Client: Ensolum Project/Site: SEMU BMT SDG: 0332057013

Qualifiers

GC Semi VOA Qualifier **Qualifier Description**

MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

n Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid Colony Forming Unit CFU **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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

Not Calculated NC

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)

RLReporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum Job ID: 890-3093-2 Project/Site: SEMU BMT SDG: 0332057013

Job ID: 890-3093-2

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3093-2

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35711 and analytical batch 880-35736 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Eurofins Carlsbad

10/3/2022

Matrix: Solid

Job ID: 890-3093-2

Lab Sample ID: 890-3093-1

SDG: 0332057013

Client Sample ID: HA09

Project/Site: SEMU BMT

Date Collected: 09/27/22 12:30 Date Received: 09/28/22 08:29

Sample Depth: 1

Client: Ensolum

Method: 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total TPH	81.9		50.0	mg/Kg			10/03/22 11:24	1		

Total TPH	81.9		50.0	mg/Kg			10/03/22 11:24	1
- Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 23:06	1
Diesel Range Organics (Over C10-C28)	81.9		50.0	mg/Kg		09/29/22 13:24	09/30/22 23:06	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 23:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			09/29/22 13:24	09/30/22 23:06	1
o-Terphenyl	100		70 - 130			09/29/22 13:24	09/30/22 23:06	1

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 4.95 09/30/22 02:15 Chloride **58.2** mg/Kg **Client Sample ID: HA09** Lab Sample ID: 890-3093-2

Date Collected: 09/27/22 12:35 Date Received: 09/28/22 08:29

Sample Depth: 2

o-Terphenyl

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	77.6		49.8	mg/Kg			10/03/22 11:24	1
- Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		09/29/22 13:24	09/30/22 23:28	1
(GRO)-C6-C10								
Diesel Range Organics (Over	77.6		49.8	mg/Kg		09/29/22 13:24	09/30/22 23:28	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/29/22 13:24	09/30/22 23:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			09/29/22 13:24	09/30/22 23:28	

Method: 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	200	4.96	mg/Kg			09/30/22 02:29	1			

70 - 130

113

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09/29/22 13:24

09/30/22 23:28

Matrix: Solid

Surrogate Summary

Client: Ensolum Job ID: 890-3093-2
Project/Site: SEMU BMT SDG: 0332057013

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limi
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3080-A-21-C MS	Matrix Spike	106	89	
390-3080-A-21-D MSD	Matrix Spike Duplicate	96	80	
390-3093-1	HA09	100	100	
390-3093-2	HA09	113	113	
.CS 880-35711/2-A	Lab Control Sample	118	103	
.CSD 880-35711/3-A	Lab Control Sample Dup	109	110	
MB 880-35711/1-A	Method Blank	119	109	
Surrogate Legend				
1CO = 1-Chlorooctane				

OTPH = o-Terphenyl

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Job ID: 890-3093-2

SDG: 0332057013

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

Lab Sample ID: MB 880-35711/1-A

Lab Sample ID: LCS 880-35711/2-A

Matrix: Solid

Analysis Batch: 35736

Matrix: Solid

Project/Site: SEMU BMT

Client: Ensolum

Analysis Batch: 35736

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35711

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1
	5	*						
	MB	MB						

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	09/29/22 13:24	09/30/22 19:10	1
o-Terphenyl	109		70 - 130	09/29/22 13:24	09/30/22 19:10	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35711

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	825.2		mg/Kg		83	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	990.0		mg/Kg		99	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	118	70 - 130
o-Terphenyl	103	70 - 130

Client Sample ID: Lab Control Sample Dup

93

70 - 130

Prep Type: Total/NA Prep Batch: 35711

mg/Kg

Analysis Batch: 35736

Lab Sample ID: LCSD 880-35711/3-A

Spike LCSD LCSD RPD %Rec Added Limit Analyte Result Qualifier %Rec Limits RPD Unit D Gasoline Range Organics 1000 929.3 mg/Kg 93 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1053 mg/Kg 105 70 - 130 20

C10-C28)

Matrix: Solid

LCSD LCSD

<50.0 U

Surrogate	%Recovery Quali	fier Limits
1-Chlorooctane	109	70 - 130
o-Terphenyl	110	70 - 130

Lab Sample ID: 890-3080-A-21-C MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 35736

Diesel Range Organics (Over

Prep Batch: 35711 MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <50.0 U F1 998 661.8 F1 mg/Kg 66 70 - 130 (GRO)-C6-C10

955.8

998

C10-C28)

Job ID: 890-3093-2 Client: Ensolum Project/Site: SEMU BMT SDG: 0332057013

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

Lab Sample ID: 890-3080-A-21-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 35736 Prep Batch: 35711

	MS		
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-3080-A-21-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 35736 Prep Batch: 35711

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit <50.0 U F1 999 693.2 F1 69 70 - 1305 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 999 867.0 mg/Kg 84 70 - 13010 20 C10-C28)

MSD MSD %Recovery Surrogate Qualifier Limits 70 - 130 1-Chlorooctane 96 80 70 - 130 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Soluble

Analysis Batch: 35722

мв мв Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed Chloride 5.00 <5.00 U mg/Kg 09/30/22 00:33

Lab Sample ID: LCS 880-35682/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 248.7 mg/Kg 99 90 - 110

Lab Sample ID: LCSD 880-35682/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35722

Released to Imaging: 1/4/2023 11:44:06 AM

Spike LCSD LCSD %Rec Added Analyte Result Qualifier Unit D %Rec Limits RPD Limit Chloride 250 249.0 100 90 - 110 mg/Kg

Lab Sample ID: 890-3092-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Soluble Analysis Batch: 35722

Spike MS MS %Rec Sample Sample

Analyte Result Qualifier Added Result Qualifier %Rec Limits Unit Chloride 64.0 249 309.7 mg/Kg 90 - 110

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RPD

QC Sample Results

Client: Ensolum Job ID: 890-3093-2 Project/Site: SEMU BMT SDG: 0332057013

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3092-A-1-D MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

raidiyolo Zatom cor ZZ	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	64.0		249	309.1		mg/Kg		99	90 - 110	0	20

QC Association Summary

 Client: Ensolum
 Job ID: 890-3093-2

 Project/Site: SEMU BMT
 SDG: 0332057013

GC Semi VOA

Prep Batch: 35711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	8015NM Prep	
890-3093-2	HA09	Total/NA	Solid	8015NM Prep	
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	8015B NM	35711
890-3093-2	HA09	Total/NA	Solid	8015B NM	35711
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015B NM	35711
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35711
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35711
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35711
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35711

Analysis Batch: 35959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Total/NA	Solid	8015 NM	
890-3093-2	HA09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Soluble	Solid	DI Leach	
890-3093-2	HA09	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3092-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3092-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Released to Imaging: 1/4/2023 11:44:06 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3093-1	HA09	Soluble	Solid	300.0	35682
890-3093-2	HA09	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3092-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	35682
890-3092-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35682

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Lab Chronicle

Client: Ensolum Job ID: 890-3093-2
Project/Site: SEMU BMT SDG: 0332057013

Client Sample ID: HA09

Lab Sample ID: 890-3093-1

Matrix: Solid

Date Collected: 09/27/22 12:30 Date Received: 09/28/22 08:29

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			35959	10/03/22 11:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35711	09/29/22 13:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35736	09/30/22 23:06	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 02:15	CH	EET MID

Client Sample ID: HA09 Lab Sample ID: 890-3093-2

Date Collected: 09/27/22 12:35 Matrix: Solid

Date Received: 09/28/22 08:29

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			35959	10/03/22 11:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	35711	09/29/22 13:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35736	09/30/22 23:28	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 02:29	CH	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3093-2 Project/Site: SEMU BMT SDG: 0332057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The fellowing encludes	are included in this report by	t the leberatory is not contifi	iad butto acusaraina authoritu. This list ma	arinalisala analistaa far
0 ,	' '	t the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for
The following analytes the agency does not of	' '	t the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for
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Method Summary

Client: Ensolum Job ID: 890-3093-2 Project/Site: SEMU BMT SDG: 0332057013

Method	Method Description	Protocol	Laboratory
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	MCAWW	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	FET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3093-2

SDG: 0332057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3093-1	HA09	Solid	09/27/22 12:30	09/28/22 08:29	1
890-3093-2	HA09	Solid	09/27/22 12:35	09/28/22 08:29	2

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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 SiO2 Na Sr TI Sn U V Zn

eurofins **Environment Testing**

Project Manager:

Company Name:

Ensolum Josh Adams

City, State ZIP:

Carlsbad, NM 88220 3122 National Parks Hwy

3035178437

Email: jadams@ensolum.com and kjennings@ensol

City, State ZIP:

Carlsbad, NM 88220 3122 National Parks Hwy.

Address:

Bill to: (if different)

Josh Adams

Company Name:

Ensolum

Turn Around

Pres.

Chain of Custody

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 (5 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

ANALYSIS RECLIEST Preservative Codes	des
Deliverables: EDD	
Reporting: Level II Level III PST/UST TRRP Level IV	evel IV
State of Project:	1
Program: UST/PST	erfund 🗌
Work Order Comments	
www.xenco.com Page of	
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Bouled Date: 08/05/2000 Bay 2000 2		37	0		ch
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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)
	niess previously negotiated.	of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any loases 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 to 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 to Eurofins Xenco, and the control of th	hility for any losses or expenses in heample submitted to Eurofins Xe	cost of samples and shall not assume any responsi- be applied to each project and a charge of \$5 for each	of service. Eurofins Xenco will be liable only for the of Eurofins Xenco. A minimum charge of \$85.00 wi
	rd terms and conditions	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	m client company to Eurofins Xeno	ent of samples constitutes a valid purchase order fro	Notice: Signature of this document and relinquishm
7470 / 7471	U Hg: 1631 / 245.1 / 7470 / 7471	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	RCRA Sb As Ba Be Co		Circle Method(s) and Metal(s) to be analyzed

Page	15	of	18
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NaOH+Ascorbic Acid: SAPC Zn Acetate+NaOH: Zn Na₂S₂O₃: NaSO₃ NaHSO4: NABIS H3PO4: HP

Sample Comments

SAMPLE RECEIPT

emp Blank:

(res)No

Wet Ice:

8

Parameters

FOOM

Z

Cooler Custody Seals:

ample Custody Seals:

Yes No Yes No

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Temperature Reading: Correction Factor: Thermometer ID:

D

CHLORIDES (EPA: 300.0)

890-3093 Chain of Custody

HCL: HC

Cool: Cool

MeOH: Me HNO₃: HN NaOH: Na

H2SO4: H2

Corrected Temperature:

Sample Identification HA09 HA09

Matrix

Date Sampled

Sampled

Cont # of

TPH (8015)

BTEX (8021

= Depth

Time

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9/27/22 9/27/22

1235 1230

Grab/ Grab/ Comp Grab/

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Incident ID: NAPP2217430297

Cost Code - GA130323

AFE0000000000471

Samples Received Intact:

Project Number:

roject Name:

Sampler's Name:

roject Location:

Lea County, NM

Due Date: Routine

5 Day TAT Rush

TAT starts the day received by the lab, if received by 4:30pm

Liz Cheli

NA

03D2057013 SEMU BMT Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020 2

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Chain of Custody

Midland, TX (432) 704-5440, Sar EL Paso, TX (915) 585-3443, I Hobbs, NM (575) 392-7550, Ca Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

	Env	ront	Environment Testing	ting	Mid	land, T>	((432)	704-544	I0, San	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	TX (21	0) 509-	3334				_	Vork	Work Order No:	er No				
	Xenco	0			Е	Paso,	TX (915	585-3	443, Lu	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	X (806	794-1	296									7	۵.	
					Ī	obbs, N	M (575)	392-75	50, Ca	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	W (5/5	988-3	199					WW	www.xenco.com	o.com	ը Page	-	of -	
roject Manager:	Josh Adams				Bill to: (if different)	rent)	J _O	Josh Adams	ms									_	Vork (Order	Con			
	Ensolum				Company Name:	me:	Εn	Ensolum							Pro	gram:	UST/P	ST	PRP	Brov	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐		Superfund [
	3122 National Parks Hwy	KS HW	~		Address:		31	22 Nati	onal P	3122 National Parks Hwy.	Ϋ́				Stat	State of Project:	oject:							
ity. State ZIP:	Carlsbad, NM 88220	20			City, State ZIP:	. . 0	Ca	Carlsbad, NM 88220	NM 8	220					Rep	orting:	Level	<u> </u>	evel III	□ P.	Reporting: Level II	₹ □	Level IV	
hone:	3035178437			Email:	Email: jadams@ensolum.com and kjennings@ensolum.com	nsolun	1.com	and ki	ennin	ıs@en	solum	.com			Deli	Deliverables: EDD	s: ED			ADar	ADaPT Other:	ner:		
roject Name:	SEMU BMT	BMT		Turn	Turn Around							AN	ANALYSIS REQ	S RE	QUEST	-					Preser	vative	Preservative Codes	
roject Number:	03D2057013	7013		✓ Routine	Rush	Pres. Code	Pres. Code	_							-	-	-	-			None: NO	0	DI Water: H ₂ O	
roject Location:	Lea County, NM	īy N		Due Date:	5 Day TAT								_		_	_		_			Cool: Cool	~	MeOH: Me	
ampler's Name:	Liz Chel	heli		TAT starts the	TAT starts the day received by	δ						Т	_	_	Г	Г	_	-	Т	t	HCL: HC	I	HNO ₃ : HN	
0#:	N/A			the lab, if reci	the lab, if received by 4:30pm	-	713	-				E '						_			H ₂ SO ₄ : H ₂	z	NaOH: Na	
AMPLE RECEIPT	PT Temp Blank:		(res)No	Wet ice:	(Kesk No	nete			-												H₃PO₄: HP			
amples Received Intact:			Thermometer ID:	1	-DOWN	2							Ī								NaHSO4: NABIS	BS		10
ooler Custody Seals:	Yes No	A)A	Correction Factor:	ctor:	-0.0					_		₫						=			7= Application		75	of
ample Custody Seals: otal Containers:	Yes No	O I	Corrected Temperature:	Reading: mperature:	 f 5	LL	IDES (890	890-3093 Chain	Chain		of Custody		•		_	NaOH+Ascorbic Acid: SAPC	rbic Ac	id: SAPC	o 16
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth Grab/	ab/ # of mp Cont	플 역 CHLOR	TPH (80	BTEX (Sampl	le Con	Sample Comments	Doo
HA09	9		9/27/22	1230	1' Gr	Grab/	×	×	×	\vdash				t				\vdash	1	+	Incident ID:			
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ircle Method(s) au	ircle Method(s) and Metal(s) to be analyzed	nalyze	98	ICLP / S	ICLP / SPLP 6010: GRURA SD AS DA DE CO CI CO CO FO MIL MO	250	S S	78	Da Da	6	Ç	5	Z X	Š	2	14 00 Ag	=		Ę	3	, £10. 1 ; 11			
tice: Signature of this	otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors.	ment of	samples cons	titutes a valid p	ourchase order	from clic	or any lo	any to I	Eurofins	Xenco, it	s affiliar	tes and	subcon if such	tractors	. It ass	gns sta	ndard t	erms ar	It assigns standard terms and conditions to due to circumstances beyond the contro	tions ontrol				
Eurofins Xenco. A min	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 negotiat	vill be a	pplied to each	project and a ci	harge of \$5 for	each sar	nple sut	mitted t	o Eurof	18 Xenco	, but no	t analyz	ed. The	se term	s will be	enforc	ed unles	s previ	ously ne	gotiate	will be enforced unless previously negotiated.			

Samples Received Intact: SAMPLE RECEIPT

Cooler Custody Seals:

Sampler's Name:

Project Location: Project Number: Project Name: Phone:

City, State ZIP:

Company Name: Project Manager:

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3093-2 SDG Number: 0332057013

Login Number: 3093 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3093-2 SDG Number: 0332057013

List Source: Eurofins Midland

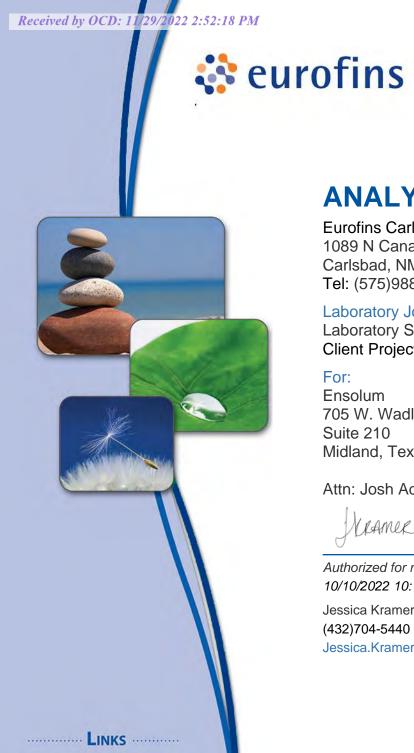
Login Number: 3093 List Number: 2 List Creation: 09/29/22 11:12 AM

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	N/A	

<6mm (1/4").





Review your project results through

EOL

Have a Question?

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ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3094-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/10/2022 10:10:32 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3094-1
SDG: 03D2057013

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Definitions/Glossary

 Client: Ensolum
 Job ID: 890-3094-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Qualifiers

GC VOA

Qualifier

*_	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.

*1 LCS/LCSD RPD exceeds control limits.

Qualifier Description

F1 MS and/or MSD recovery exceeds control limits.

S1+ Surrogate recovery exceeds control limits, high biased.

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

F1 MS and/or MSD recovery exceeds control limits.
U Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Eurofins Carlsbad

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3

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6

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11

12

Case Narrative

 Client: Ensolum
 Job ID: 890-3094-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Job ID: 890-3094-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3094-1

Receipt

The samples were received on 9/28/2022 8:29 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 1.4°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36449 and analytical batch 880-36442 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene Due to a misinjection.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36449/1-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.

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35711 and analytical batch 880-35736 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

1

2

3

4

1

9

11

12

Matrix: Solid

Lab Sample ID: 890-3094-1

Job ID: 890-3094-1

Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA10

Date Collected: 09/27/22 12:40 Date Received: 09/28/22 08:29

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *- *1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 07:11	1
Toluene	<0.00202	U *- *1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 07:11	1
Ethylbenzene	<0.00202	U *- *1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 07:11	1
m-Xylene & p-Xylene	<0.00404	U *- *1	0.00404	mg/Kg		10/08/22 12:21	10/09/22 07:11	1
o-Xylene	<0.00202	U *+ *1	0.00202	mg/Kg		10/08/22 12:21	10/09/22 07:11	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		10/08/22 12:21	10/09/22 07:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			10/08/22 12:21	10/09/22 07:11	1
1,4-Difluorobenzene (Surr)	98		70 - 130			10/08/22 12:21	10/09/22 07:11	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			10/10/22 10:40	1
Analyte Total TPH		Qualifier	RL 49.9	Unit mg/Kg	D	Prepared	Analyzed	
Total TPH	112	<u> </u>	49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/03/22 11:24	
Total TPH Method: SW846 8015B NM - Dies	112 sel Range Orga	nics (DRO)	49.9 (GC)	mg/Kg			10/03/22 11:24	1
Total TPH Method: SW846 8015B NM - Dies Analyte	112 sel Range Orga Result	nics (DRO) Qualifier	49.9 (GC)	mg/Kg	<u>D</u>	Prepared	10/03/22 11:24 Analyzed	1 Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	112 sel Range Orga	nics (DRO) Qualifier	49.9 (GC)	mg/Kg			10/03/22 11:24	1 Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte	112 sel Range Orga Result	nics (DRO) Qualifier	49.9 (GC)	mg/Kg		Prepared	10/03/22 11:24 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9	mg/Kg Unit mg/Kg		Prepared 09/29/22 13:24	10/03/22 11:24 Analyzed 09/30/22 23:49	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 13:24 09/29/22 13:24	10/03/22 11:24 Analyzed 09/30/22 23:49 09/30/22 23:49	1 Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	112 sel Range Orga Result <49.9 112 <49.9	nics (DRO) Qualifier U	49.9 (GC) RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 13:24 09/29/22 13:24	Analyzed 09/30/22 23:49 09/30/22 23:49	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	112 sel Range Orga Result <49.9 112 <49.9 %Recovery	nics (DRO) Qualifier U	49.9 (GC) RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 13:24 09/29/22 13:24 09/29/22 13:24 Prepared	Analyzed 09/30/22 23:49 09/30/22 23:49 09/30/22 23:49 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	112 sel Range Orga Result <49.9 112 <49.9 %Recovery 121 119	U Qualifier	49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 13:24 09/29/22 13:24 09/29/22 13:24 Prepared 09/29/22 13:24	Analyzed 09/30/22 23:49 09/30/22 23:49 09/30/22 23:49 Analyzed 09/30/22 23:49	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	112	U Qualifier	49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 13:24 09/29/22 13:24 09/29/22 13:24 Prepared 09/29/22 13:24	Analyzed 09/30/22 23:49 09/30/22 23:49 09/30/22 23:49 Analyzed 09/30/22 23:49	Dil Fac 1 Dil Fac 1 1 Dil Fac 1 Dil Fac 1 Dil Fac

Client Sample ID: HA10 Lab Sample ID: 890-3094-2 Matrix: Solid

Date Collected: 09/27/22 12:45 Date Received: 09/28/22 08:29

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 07:32	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 07:32	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 07:32	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399	mg/Kg		10/08/22 12:21	10/09/22 07:32	1
o-Xylene	<0.00200	U *+ *1	0.00200	mg/Kg		10/08/22 12:21	10/09/22 07:32	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/08/22 12:21	10/09/22 07:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			10/08/22 12:21	10/09/22 07:32	

Matrix: Solid

Lab Sample ID: 890-3094-2

09/30/22 02:39

Client Sample Results

 Client: Ensolum
 Job ID: 890-3094-1

 Project/Site: SEMU BMT
 SDG: 03D2057013

Client Sample ID: HA10

Date Collected: 09/27/22 12:45 Date Received: 09/28/22 08:29

Sample Depth: 2

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130			10/08/22 12:21	10/09/22 07:32	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/10/22 10:40	1
Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	54.1		49.9	mg/Kg			10/03/22 11:24	1
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Die	sel Range Orga	nics (DRO)	(GC)					
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		09/29/22 13:24	10/01/22 00:11	1
(GRO)-C6-C10			40.0			00/00/00 40:04	40/04/00 00:44	
Diesel Range Organics (Over C10-C28)	54.1		49.9	mg/Kg		09/29/22 13:24	10/01/22 00:11	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/29/22 13:24	10/01/22 00:11	1
,				5 5				
	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Surrogate			70 - 130			09/29/22 13:24	10/01/22 00:11	
Surrogate 1-Chlorooctane	128		10 - 130					•

5.03

mg/Kg

234

Surrogate Summary

Client: Ensolum Job ID: 890-3094-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3089-A-1-F MS	Matrix Spike	106	91	
890-3089-A-1-G MSD	Matrix Spike Duplicate	96	81	
890-3094-1	HA10	82	98	
890-3094-2	HA10	99	94	
LCS 880-36449/1-A	Lab Control Sample	171 S1+	117	
LCSD 880-36449/2-A	Lab Control Sample Dup	98	94	
MB 880-36293/5-A	Method Blank	83	92	
MB 880-36449/5-A	Method Blank	87	87	

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3080-A-21-C MS	Matrix Spike	106	89
890-3080-A-21-D MSD	Matrix Spike Duplicate	96	80
890-3094-1	HA10	121	119
890-3094-2	HA10	128	127
LCS 880-35711/2-A	Lab Control Sample	118	103
LCSD 880-35711/3-A	Lab Control Sample Dup	109	110
MB 880-35711/1-A	Method Blank	119	109

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3094-1 SDG: 03D2057013 Project/Site: SEMU BMT

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36293/5-A

Lab Sample ID: MB 880-36449/5-A

Matrix: Solid Analysis Batch: 36442 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36293

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:51	10/08/22 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 15:51	10/08/22 15:47	1

мв мв

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83	70 - 130	10/06/22 15:51	10/08/22 15:47	1
1,4-Difluorobenzene (Surr)	92	70 - 130	10/06/22 15:51	10/08/22 15:47	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36449

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/08/22 12:21	10/09/22 02:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/08/22 12:21	10/09/22 02:23	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/08/22 12:21	10/09/22 02:23	1

Lab Sample ID: LCS 880-36449/1-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 36442

Analysis Batch: 36442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 36449

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.01884	*-	mg/Kg		19	70 - 130	
Toluene	0.100	0.01832	*-	mg/Kg		18	70 - 130	
Ethylbenzene	0.100	0.02039	*-	mg/Kg		20	70 - 130	
m-Xylene & p-Xylene	0.200	0.05373	*-	mg/Kg		27	70 - 130	
o-Xylene	0.100	0.3177	*+	mg/Kg		318	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1.4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Analysis Batch: 36442

Chefit Sample ID. Lab Control Sample Dup
Prep Type: Total/NA
Pron Ratch: 36//0

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09908	*1	mg/Kg		99	70 - 130	136	35

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QC Sample Results

Client: Ensolum Job ID: 890-3094-1 Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: LCSD 880-36449/2-A

Matrix: Solid

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36449

Analysis Batch: 36442

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08768	*1	mg/Kg		88	70 - 130	131	35
Ethylbenzene	0.100	0.08396	*1	mg/Kg		84	70 - 130	122	35
m-Xylene & p-Xylene	0.200	0.1727	*1	mg/Kg		86	70 - 130	105	35
o-Xylene	0.100	0.09883	*1	mg/Kg		99	70 - 130	105	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-3089-A-1-F MS Client Sample ID: Matrix Spike

Matrix: Solid				Prep Type: Total/NA
Analysis Batch: 36442				Prep Batch: 36449
	Sample Sample	Spike	MS MS	%Rec

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U *- *1 F1	0.0998	0.04456	F1	mg/Kg		45	70 - 130	
Toluene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
Ethylbenzene	<0.00202	U *- *1 F1	0.0998	0.04470	F1	mg/Kg		45	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.200	0.07327	F1	mg/Kg		37	70 - 130	
o-Xylene	<0.00202	U *+ *1 F1	0.0998	0.04861	F1	mg/Kg		49	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	91	70 - 130

Lab Sample ID: 890-3089-A-1-G MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Solid Analysis Batch: 36442

7 many old Batolii do 1 iz											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U *- *1 F1	0.101	0.03882	F1	mg/Kg		39	70 - 130	14	35
Toluene	<0.00202	U *- *1 F1	0.101	0.04506	F1	mg/Kg		45	70 - 130	1	35
Ethylbenzene	<0.00202	U *- *1 F1	0.101	0.04374	F1	mg/Kg		43	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U *- *1 F1	0.201	0.06634	F1	mg/Kg		33	70 - 130	10	35
o-Xylene	<0.00202	U *+ *1 F1	0.101	0.04504	F1	mg/Kg		45	70 - 130	8	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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

Matrix: Solid

Analysis Batch: 35736

Lab Sample ID: MB 880-35711/1-A Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 35711

мв мв Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 09/29/22 13:24 09/30/22 19:10 Gasoline Range Organics (GRO)-C6-C10

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Prep Batch: 36449

Client: Ensolum Job ID: 890-3094-1 Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: MB 880-35711/1-A **Matrix: Solid**

Analysis Batch: 35736

Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 35711

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1

MB MB

MB MB

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	119		70 - 130	09/29/22 13:24	09/30/22 19:10	1
Į	o-Terphenyl	109		70 - 130	09/29/22 13:24	09/30/22 19:10	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-35711/2-A Prep Type: Total/NA

Prep Batch: 35711 Analysis Batch: 35736

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	825.2		mg/Kg		83	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	990.0		mg/Kg		99	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-35711/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Analysis Batch: 35736

Prep Batch: 35711 Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier %Rec Limits RPD Limit Unit D Gasoline Range Organics 1000 929.3 mg/Kg 93 70 - 130 12 20 (GRO)-C6-C10

1053

mg/Kg

105

70 - 130

1000

Diesel Range Organics (Over C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 109 70 - 130 o-Terphenyl 110 70 - 130

Lab Sample ID: 890-3080-A-21-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 35736 Prep Batch: 35711

MS MS Sample Sample Snike %Rec

									701100	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U F1	998	661.8	F1	mg/Kg		66	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	998	955.8		mg/Kg		93	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	89		70 - 130

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Prep Type: Total/NA

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Job ID: 890-3094-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: 890-3080-A-21-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 35736 Prep Type: Total/NA Prep Batch: 35711

Sample Sample Spike MSD MSD RPD Result Qualifier Limit Analyte Added Result Qualifier Unit %Rec Limits RPD Gasoline Range Organics <50.0 UF1 999 693.2 F1 mg/Kg 69 70 - 130 5 20 (GRO)-C6-C10 999 Diesel Range Organics (Over <50.0 U 867.0 mg/Kg 84 70 - 130 10

C10-C28)

MSD MSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	96	70 - 130
o-Terphenyl	80	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35682/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

мв мв

Result Qualifier RL Unit Analyte Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 09/30/22 00:33

Lab Sample ID: LCS 880-35682/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	248.7	-	mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-35682/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	249.0		mg/Kg		100	90 - 110	0	20	

Lab Sample ID: 890-3092-A-1-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35722

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	64.0		249	309.7		ma/Ka		99	90 110	

Lab Sample ID: 890-3092-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 35722

-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	64.0		249	309.1		mg/Kg		99	90 - 110	0	20

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Prep Type: Soluble

QC Association Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3094-1 SDG: 03D2057013

GC VOA

Prep Batch: 36293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36293/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3094-1	HA10	Total/NA	Solid	8021B	36449
890-3094-2	HA10	Total/NA	Solid	8021B	36449
MB 880-36293/5-A	Method Blank	Total/NA	Solid	8021B	36293
MB 880-36449/5-A	Method Blank	Total/NA	Solid	8021B	36449
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	8021B	36449
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36449
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	36449
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36449

Prep Batch: 36449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3094-1	HA10	Total/NA	Solid	5035	_
890-3094-2	HA10	Total/NA	Solid	5035	
MB 880-36449/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36449/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36449/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3089-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-3089-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3094-1	HA10	Total/NA	Solid	Total BTEX	
890-3094-2	HA10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 35711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3094-1	HA10	Total/NA	Solid	8015NM Prep	
890-3094-2	HA10	Total/NA	Solid	8015NM Prep	
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3094-1	HA10	Total/NA	Solid	8015B NM	35711
890-3094-2	HA10	Total/NA	Solid	8015B NM	35711
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015B NM	35711
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35711
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35711
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35711
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35711

QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT

SDG: 03D2057013

GC Semi VOA

Analysis Batch: 35960

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	890-3094-1	HA10	Total/NA	Solid	8015 NM	
l	890-3094-2	HA10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3094-1	HA10	Soluble	Solid	DI Leach	
890-3094-2	HA10	Soluble	Solid	DI Leach	
MB 880-35682/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3092-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3092-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3094-1	HA10	Soluble	Solid	300.0	35682
890-3094-2	HA10	Soluble	Solid	300.0	35682
MB 880-35682/1-A	Method Blank	Soluble	Solid	300.0	35682
LCS 880-35682/2-A	Lab Control Sample	Soluble	Solid	300.0	35682
LCSD 880-35682/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35682
890-3092-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	35682
890-3092-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35682

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Lab Chronicle

Client: Ensolum Job ID: 890-3094-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: HA10

Date Received: 09/28/22 08:29

Lab Sample ID: 890-3094-1 Date Collected: 09/27/22 12:40 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	36449	10/08/22 12:21	MNR	EET MIC
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 07:11	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36559	10/10/22 10:40	AJ	EET MIC
Total/NA	Analysis	8015 NM		1			35960	10/03/22 11:24	SM	EET MIC
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35711	09/29/22 13:24	DM	EET MIC
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35736	09/30/22 23:49	AJ	EET MIC
Soluble	Leach	DI Leach			4.96 g	50 mL	35682	09/29/22 12:06	SMC	EET MIC
Soluble	Analysis	300.0		1			35722	09/30/22 02:34	CH	EET MID

Client Sample ID: HA10 Lab Sample ID: 890-3094-2

Date Collected: 09/27/22 12:45 Matrix: Solid Date Received: 09/28/22 08:29

Batch Dil Batch Initial Final Batch Prepared Pren Tyne Method Type Run Amount Amount Number or Analyzed Analyst

rieb lybe	Type	Metriou	ixuii	i actor	Amount	Amount	Number	Of Allalyzeu	Allalyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36449	10/08/22 12:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36442	10/09/22 07:32	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36559	10/10/22 10:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35960	10/03/22 11:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35711	09/29/22 13:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35736	10/01/22 00:11	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	35682	09/29/22 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			35722	09/30/22 02:39	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: SEMU BMT
SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date 06-30-23	
		ELAP	T104704400-22-24		
The fellowing englytes					
the agency does not of	. ,	ut the laboratory is not certili	ed by the governing authority. This list ma	ay include analytes for	
,	. ,	It the laboratory is not certilion Matrix	ed by the governing authority. This list ma Analyte	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

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Method Summary

Job ID: 890-3094-1 Client: Ensolum SDG: 03D2057013 Project/Site: SEMU BMT

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: SEMU BMT

Job ID: 890-3094-1

SDG: 03D2057013

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3094-1	HA10	Solid	09/27/22 12:40	09/28/22 08:29	1
890-3094-2	HA10	Solid	09/27/22 12:45	09/28/22 08:29	2

Relinquished by: (Signature)

Received by: (Signature)

9-28-22

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Chain of Custody

	Xenco		EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	www.xenco.com Pageof
Project Manager	losh Adams	Bill to: (if different)	Josh Adams	Work Order Comments
	Ensolum	Company Name:	Ensolum	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
	3122 National Parks Hwy.	Address:	3122 National Parks Hwy.	
te ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220	Reporting: Level II Level III PST/UST TRRP Level IVL
	3035178437	Email: jadams@ensolur	Email: jadams@ensolum.com and kjennings@ensolum.com	Deliverables: EDD
Project Name:	SEMU BMT	Turn Around	ANALYSIS REQUEST	EQUEST Preservative Codes
Project Number:	03D2057013	7	Pres.	None: NO Di Water: H ₂ O
Project Location:	Lea County, NM Due	Due Date: 5 Day TAT		2
Sampler's Name:		TAT starts the day received by		
PO #:	N/A) the l			H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: (es) No	Wet ice: Ves No nete		H₃PO₄: HP
Samples Received Intact:	ntact: Yes No Thermometer ID:	100		NaHSQ: NABIS
Cooler Custody Seals:	Yes No MA	-5.2	PA: 890-3094 Cha	in of Custody Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	ils: Yes No N/A Temperature Reading:	ding: 1.6	11	Zn Acetate+NaOH: Zn
Sample Identification	Matrix Date Sampled	Depth Grab/	CHLORIE TPH (801 BTEX (80	Sample Comments
HA10	S 9/27/22	1' Grab/	×	Incident ID:
HA10	S 9/27/22	1245 2' Grab/	× × ×	NAPP2217430297
				Cost Code - GA130323
Total 200.7 / 6010	10 200.8 / 6020: 8RCRA	13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe P	Ph Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
ircle Method(s) an	Circle Method(s) and Metal(s) to be analyzed TC	TCLP / SPLP 6010: 8RCRA	A Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag	o Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471
otice: Signature of this d	document and relinquishment of samples constitutes to will be liable only for the cost of samples and shall	a valid purchase order from cli	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 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 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 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 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 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 the cost of samples and shall not assume any responsibility for any losses are due to circumstances.	ors. It assigns standard terms and conditions as are due to circumstances beyond the control
Relinguished by: (Signature)	(Signature) A Received by: (Signature)	(Signature)	Received by: (Signature) Received by: (Signature) Received by: (Signature)	nature) Received by: (Signature) Date/Time
Relinquished by:	_	(Signature)	_	מכפועפט טע. (טוקוופנטופ)

Revised Date: 08/25/2020 Rev 2020 2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3094-1 SDG Number: 03D2057013

Login Number: 3094 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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3094-1 SDG Number: 03D2057013

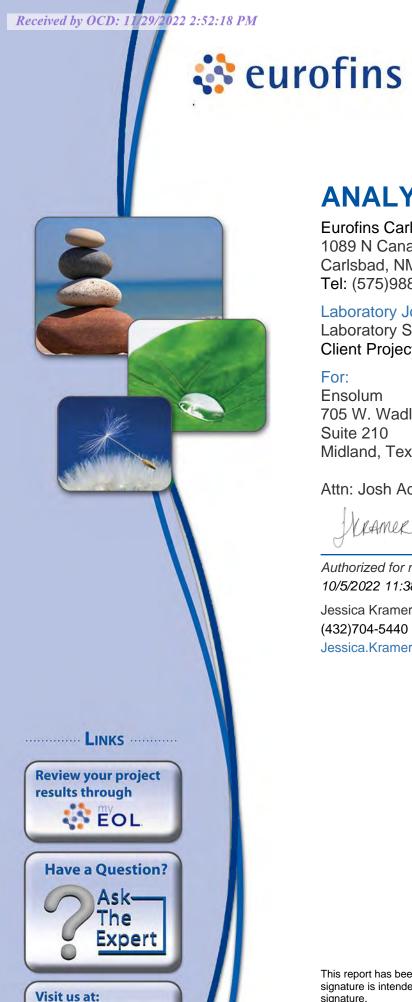
Login Number: 3094 **List Source: Eurofins Midland** List Number: 2 List Creation: 09/29/22 11:12 AM

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	N/A	

Released to Imaging: 1/4/2023 11:44:06 AM

<6mm (1/4").



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Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-3132-1

Laboratory Sample Delivery Group: 03D2057013

Client Project/Site: SEMU BMT

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Josh Adams

RAMER

Authorized for release by: 10/5/2022 11:38:44 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: SEMU BMT
Laboratory Job ID: 890-3132-1
SDG: 03D2057013

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Definitions/Glossary

Job ID: 890-3132-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

Qualifiers

G	C	VOA	
Qι	ıal	ifier	

LCS and/or LCSD is outside acceptance limits, high biased. F1 MS and/or MSD recovery exceeds control limits.

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

Qualifier Description

GC Semi VOA

Qualifier **Qualifier Description** S1+ Surrogate recovery exceeds control limits, high biased. 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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC

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

Presumptive **PRES** QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TFO

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Job ID: 890-3132-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3132-1

Receipt

The samples were received on 10/3/2022 2:22 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

Receipt Exceptions

The following samples analyzed for method <FRACTION_METHOD> were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3132-1) and FS02 (890-3132-2). SAMPLES RECEIVED FROM UNPRESERVED BULK SOLID

GC VOA

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-36062 and analytical batch 880-36055 recovered outside control limits for the following analytes: Benzene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36062 and analytical batch 880-36055 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 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36062/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3122-A-1-C MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS01 (890-3132-1) and FS02 (890-3132-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD NM: The surrogate recovery for the blank associated with preparation batch 880-36000 and analytical batch 880-36021 was outside the upper control 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 880-36067 and 880-36067 and analytical batch 880-36101 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 Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: FS01 Lab Sample ID: 890-3132-1

Date Collected: 10/03/22 11:00 Matrix: Solid Date Received: 10/03/22 14:22

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200	mg/Kg		10/04/22 13:56	10/05/22 00:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/05/22 00:45	1
Ethylbenzene	<0.00200	U *+	0.00200	mg/Kg		10/04/22 13:56	10/05/22 00:45	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401	mg/Kg		10/04/22 13:56	10/05/22 00:45	1
o-Xylene	<0.00200	U *+	0.00200	mg/Kg		10/04/22 13:56	10/05/22 00:45	1
Xylenes, Total	<0.00401	U *+	0.00401	mg/Kg		10/04/22 13:56	10/05/22 00:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130			10/04/22 13:56	10/05/22 00:45	1
1,4-Difluorobenzene (Surr)	87		70 - 130			10/04/22 13:56	10/05/22 00:45	1
- Method: TAL SOP Total BTEX - T	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/05/22 12:21	
Method: SW846 8015 NM - Diese	•	, , ,	•					
		Qualifier	RL	Unit	D	Prepared	Analyzed	
Analyte Total TPH	Result <50.0		RL 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/05/22 09:54	
Total TPH	<50.0	U	50.0		<u>D</u>	Prepared		
Total TPH Method: SW846 8015B NM - Dies	<50.0	U	50.0		<u>D</u> 	Prepared Prepared		1
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	<50.0	nics (DRO) Qualifier	50.0 (GC)	mg/Kg			10/05/22 09:54	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 sel Range Orga Result	nics (DRO) Qualifier	50.0 (GC)	mg/Kg		Prepared	10/05/22 09:54 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 sel Range Orga Result <50.0	nics (DRO) Qualifier U	50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg		Prepared 10/04/22 09:00	10/05/22 09:54 Analyzed 10/04/22 14:06	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 sel Range Orga Result <50.0 <50.0	Onics (DRO) Qualifier U U	50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/04/22 09:00 10/04/22 09:00	10/05/22 09:54 Analyzed 10/04/22 14:06 10/04/22 14:06	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0 sel Range Orga Result <50.0 <50.0 <50.0	Onics (DRO) Qualifier U U	50.0 (GC) RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/04/22 09:00 10/04/22 09:00 10/04/22 09:00	Analyzed 10/04/22 14:06 10/04/22 14:06	Dil Fac
	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery	Onics (DRO) Qualifier U U	50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/04/22 09:00 10/04/22 09:00 10/04/22 09:00 Prepared	Analyzed 10/04/22 14:06 10/04/22 14:06 10/04/22 14:06 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery 105 97	Oualifier U Qualifier U Qualifier	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/04/22 09:00 10/04/22 09:00 10/04/22 09:00 Prepared 10/04/22 09:00	Analyzed 10/04/22 14:06 10/04/22 14:06 10/04/22 14:06 Analyzed 10/04/22 14:06	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	sel Range Orga Result <50.0 <50.0 <50.0 <50.0 <50.0 <70.0 %Recovery 105 97 s, lon Chromato	Oualifier U Qualifier U Qualifier	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/04/22 09:00 10/04/22 09:00 10/04/22 09:00 Prepared 10/04/22 09:00	Analyzed 10/04/22 14:06 10/04/22 14:06 10/04/22 14:06 Analyzed 10/04/22 14:06	Dil Fac

Client Sample ID: FS02 Lab Sample ID: 890-3132-2

Date Collected: 10/03/22 12:30 Date Received: 10/03/22 14:22

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200	mg/Kg		10/04/22 13:56	10/05/22 01:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/05/22 01:11	1
Ethylbenzene	<0.00200	U *+	0.00200	mg/Kg		10/04/22 13:56	10/05/22 01:11	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399	mg/Kg		10/04/22 13:56	10/05/22 01:11	1
o-Xylene	<0.00200	U *+	0.00200	mg/Kg		10/04/22 13:56	10/05/22 01:11	1
Xylenes, Total	<0.00399	U *+	0.00399	mg/Kg		10/04/22 13:56	10/05/22 01:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130			10/04/22 13:56	10/05/22 01:11	1

Eurofins Carlsbad

Matrix: Solid

10/5/2022

Client Sample Results

Client: Ensolum Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: FS02 Lab Sample ID: 890-3132-2

Date Collected: 10/03/22 12:30 Matrix: Solid Date Received: 10/03/22 14:22

Sample Depth: 1

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130			10/04/22 13:56	10/05/22 01:11	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/05/22 12:21	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	153		50.0	mg/Kg			10/05/22 09:54	
Analyte		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/04/22 09:00	10/04/22 13:44	1
Diesel Range Organics (Over	153		50.0	mg/Kg		10/04/22 09:00	10/04/22 13:44	
C10-C28)	100		00.0	mg/ng		10/0 1/22 00:00	10/01/22 10:11	,
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/04/22 09:00	10/04/22 13:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			10/04/22 09:00	10/04/22 13:44	
o-Terphenyl	104		70 - 130			10/04/22 09:00	10/04/22 13:44	

5.03

mg/Kg

515

10/05/22 00:31

Surrogate Summary

Client: Ensolum Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3122-A-1-C MS	Matrix Spike	135 S1+	97
890-3122-A-1-D MSD	Matrix Spike Duplicate	124	91
890-3132-1	FS01	132 S1+	87
890-3132-2	FS02	133 S1+	91
LCS 880-36062/1-A	Lab Control Sample	138 S1+	104
LCSD 880-36062/2-A	Lab Control Sample Dup	120	94
MB 880-36062/5-A	Method Blank	86	88
Surrogate Legend			

BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

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

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

_			
		1001	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3113-A-41-B MS	Matrix Spike	82	76
890-3113-A-41-C MSD	Matrix Spike Duplicate	83	75
890-3132-1	FS01	105	97
890-3132-2	FS02	114	104
LCS 880-36000/2-A	Lab Control Sample	98	102
LCSD 880-36000/3-A	Lab Control Sample Dup	113	101
MB 880-36000/1-A	Method Blank	147 S1+	143 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36062/5-A

Lab Sample ID: LCS 880-36062/1-A

Matrix: Solid

Analysis Batch: 36055

Matrix: Solid Analysis Batch: 36055 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36062

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
Xvlenes, Total	< 0.00400	U	0.00400	ma/Ka		10/04/22 13:56	10/04/22 16:01	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepar	ed	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	10/04/22	13:56	10/04/22 16:01	1
1,4-Difluorobenzene (Surr)	88		70 - 130	10/04/22	13:56	10/04/22 16:01	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36062

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1337 *+ mg/Kg 134 70 - 130 Toluene 0.100 0.1188 mg/Kg 119 70 - 130 0.100 139 Ethylbenzene 0.1392 *+ mg/Kg 70 - 130 0.200 0.2792 *+ 70 - 130 m-Xylene & p-Xylene mg/Kg 140 0.100 70 - 130 o-Xylene 0.1441 *+ mg/Kg 144

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-36062/2-A

Analysis Batch: 36055

Prep Type: Total/NA Prep Batch: 36062

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1174		mg/Kg		117	70 - 130	13	35
Toluene	0.100	0.1208		mg/Kg		121	70 - 130	2	35
Ethylbenzene	0.100	0.1192		mg/Kg		119	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.2376		mg/Kg		119	70 - 130	16	35
o-Xylene	0.100	0.1201		mg/Kg		120	70 - 130	18	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	120	70 - 130
1,4-Difluorobenzene (Surr)	94	70 - 130

Lab Sample ID: 890-3122-A-1-C MS

Matrix: Solid

Analysis Batch: 36055

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

Prep Batch: 36062

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U F1 *+	0.0998	0.1312	F1	mg/Kg		131	70 - 130	
Toluene	<0.00198	U F1	0.0998	0.1402	F1	mg/Kg		140	70 - 130	

Job ID: 890-3132-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

Lab Sample ID: 890-3122-A-1-C MS

Lab Sample ID: 890-3122-A-1-D MSD

Matrix: Solid

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36062

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00198	U F1 *+	0.0998	0.1398	F1	mg/Kg		140	70 - 130	
m-Xylene & p-Xylene	<0.00396	U F1 *+	0.200	0.2793	F1	mg/Kg		140	70 - 130	
o-Xylene	<0.00198	U F1 *+	0.0998	0.1352	F1	mg/Kg		136	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits	
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130	
1,4-Difluorobenzene (Surr)	97		70 - 130	

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36062

Analysis Batch: 36055 Sample Sample Spike MSD MSD

RPD Result Qualifier RPD Limit Analyte Result Qualifier babbA Unit %Rec Limits Benzene <0.00198 U F1 *+ 0.0996 0.1158 mg/Kg 116 70 - 130 12 35 Toluene <0.00198 UF1 0.0996 0.1192 mg/Kg 120 70 - 130 16 35 Ethylbenzene <0.00198 U F1 *+ 0.0996 0.1180 119 70 - 130 17 35 mg/Kg 0.199 m-Xylene & p-Xylene <0.00396 U F1 *+ 0.2364 mg/Kg 119 70 - 130 17 35 0.0996 <0.00198 U F1 *+ 0.1185 70 - 130 o-Xylene mg/Kg 119 13

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

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

Lab Sample ID: MB 880-36000/1-A

Matrix: Solid

Analysis Batch: 36021

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

Prep Batch: 36000

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte Gasoline Range Organics 50.0 10/03/22 14:25 <50.0 U 10/04/22 10:16 mg/Kg (GRO)-C6-C10 10/03/22 14:25 10/04/22 10:16 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 10/03/22 14:25 10/04/22 10:16 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	147	S1+	70 - 130	10/03/22 14:25	10/04/22 10:16	1
o-Terphenyl	143	S1+	70 - 130	10/03/22 14:25	10/04/22 10:16	1

Lab Sample ID: LCS 880-36000/2-A

Matrix: Solid

Released to Imaging: 1/4/2023 11:44:06 AM

Analysis Batch: 36021

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

Prep Batch: 36000

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	825.3		mg/Kg		83	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	980.5		mg/Kg		98	70 - 130	
C10-C28)								

Job ID: 890-3132-1 Client: Ensolum Project/Site: SEMU BMT SDG: 03D2057013

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

LCS LCS

Lab Sample ID: LCS 880-36000/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 36021

Prep Type: Total/NA

Prep Batch: 36000

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 98 70 - 130 o-Terphenyl 102 70 - 130

Lab Sample ID: LCSD 880-36000/3-A

Matrix: Solid

Analysis Batch: 36021

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36000

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 825.4 83 70 - 1300 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 976.9 98 mg/Kg 70 - 1300 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: 890-3113-A-41-B MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 36021

Prep Type: Total/NA

Prep Batch: 36000

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U	998	798.8		mg/Kg	_	80	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	998	945.0		mg/Kg		92	70 - 130	
C10-C28)										

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 82 o-Terphenyl 76 70 - 130

Lab Sample ID: 890-3113-A-41-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 36021

Prep Type: Total/NA Prep Batch: 36000

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics <50.0 U 999 827.4 83 20 mg/Kg 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 999 952.9 mg/Kg 93 70 - 130 20

C10-C28)

MSD MSD

Surrogate	%Recovery Qual	lifier Limits
1-Chlorooctane	83	70 - 130
o-Terphenyl	75	70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

QC Sample Results

Client: Ensolum Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36067/1-A

Matrix: Solid

Analysis Batch: 36101

MB MB

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 10/04/22 21:42

Lab Sample ID: LCS 880-36067/2-A

Matrix: Solid

Analysis Batch: 36101

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 250.7 mg/Kg 100 90 - 110

Lab Sample ID: LCSD 880-36067/3-A

Matrix: Solid

Analysis Batch: 36101

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 240.2 mg/Kg 90 - 110

Lab Sample ID: 890-3124-A-7-C MS

Matrix: Solid

Analysis Batch: 36101

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 176 F1 250 367.2 F1 90 - 110 mg/Kg

Lab Sample ID: 890-3124-A-7-D MSD

Matrix: Solid

Analysis Batch: 36101

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 176 F1 250 394.9 F1 mg/Kg 88 90 - 110 20

QC Association Summary

Client: Ensolum Job ID: 890-3132-1
Project/Site: SEMU BMT SDG: 03D2057013

GC VOA

Analysis Batch: 36055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Total/NA	Solid	8021B	36062
890-3132-2	FS02	Total/NA	Solid	8021B	36062
MB 880-36062/5-A	Method Blank	Total/NA	Solid	8021B	36062
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	8021B	36062
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36062
890-3122-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	36062
890-3122-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36062

Prep Batch: 36062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Total/NA	Solid	5035	
890-3132-2	FS02	Total/NA	Solid	5035	
MB 880-36062/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3122-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3122-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Total/NA	Solid	Total BTEX	
890-3132-2	FS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Total/NA	Solid	8015NM Prep	
890-3132-2	FS02	Total/NA	Solid	8015NM Prep	
MB 880-36000/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36000/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36000/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3113-A-41-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3113-A-41-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Total/NA	Solid	8015B NM	36000
890-3132-2	FS02	Total/NA	Solid	8015B NM	36000
MB 880-36000/1-A	Method Blank	Total/NA	Solid	8015B NM	36000
LCS 880-36000/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36000
LCSD 880-36000/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36000
890-3113-A-41-B MS	Matrix Spike	Total/NA	Solid	8015B NM	36000
890-3113-A-41-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36000

Analysis Batch: 36148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Total/NA	Solid	8015 NM	
890-3132-2	FS02	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

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QC Association Summary

Client: Ensolum
Project/Site: SEMU BMT
Job ID: 890-3132-1
SDG: 03D2057013

HPLC/IC

Leach Batch: 36067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Soluble	Solid	DI Leach	
890-3132-2	FS02	Soluble	Solid	DI Leach	
MB 880-36067/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36067/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36067/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3124-A-7-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3124-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3132-1	FS01	Soluble	Solid	300.0	36067
890-3132-2	FS02	Soluble	Solid	300.0	36067
MB 880-36067/1-A	Method Blank	Soluble	Solid	300.0	36067
LCS 880-36067/2-A	Lab Control Sample	Soluble	Solid	300.0	36067
LCSD 880-36067/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36067
890-3124-A-7-C MS	Matrix Spike	Soluble	Solid	300.0	36067
890-3124-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36067

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Lab Chronicle

Client: Ensolum Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Client Sample ID: FS01

Date Received: 10/03/22 14:22

Lab Sample ID: 890-3132-1 Date Collected: 10/03/22 11:00

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 36062 Total/NA Prep 4.99 g 5 mL 10/04/22 13:56 MNR **EET MID** 8021B Total/NA Analysis 1 5 mL 5 mL 36055 10/05/22 00:45 ΑJ **EET MID** Total/NA Analysis Total BTEX 36179 10/05/22 12:21 SM EET MID Total/NA 8015 NM 36148 10/05/22 09:54 **EET MID** Analysis 1 SM Total/NA 8015NM Prep 36000 10/04/22 09:00 EET MID Prep 10.00 g 10 mL DM Total/NA Analysis 8015B NM 1 uL 1 uL 36021 10/04/22 14:06 SM **EET MID** Soluble DI Leach 4.99 g 50 mL 36067 10/04/22 15:07 KS Leach **EET MID** Soluble Analysis 300.0 36101 10/05/22 00:25 СН **EET MID**

Client Sample ID: FS02 Lab Sample ID: 890-3132-2

Date Collected: 10/03/22 12:30 **Matrix: Solid**

Date Received: 10/03/22 14:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36062	10/04/22 13:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36055	10/05/22 01:11	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36179	10/05/22 12:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			36148	10/05/22 09:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36000	10/04/22 09:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36021	10/04/22 13:44	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	36067	10/04/22 15:07	KS	EET MID
Soluble	Analysis	300.0		1			36101	10/05/22 00:31	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3132-1 Project/Site: SEMU BMT SDG: 03D2057013

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	ut the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	fer certification.		, , ,	,
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	,
0 ,		Matrix Solid	Analyte Total TPH	

Method Summary

Client: Ensolum Job ID: 890-3132-1
Project/Site: SEMU BMT SDG: 03D2057013

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	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

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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

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FS01

FS02

Client Sample ID

Sample Summary

Collected

10/03/22 11:00

10/03/22 12:30

Received

10/03/22 14:22

10/03/22 14:22 1

1

Matrix

Solid

Solid

Client: Ensolum

Lab Sample ID

890-3132-1

890-3132-2

Project/Site: SEMU BMT

Job ID: 890-3132-1

SDG: 03D2057013

Depth				-
	Depth			

City, State ZIP:

Chain of Custody

solum	n Hoowns			Xenco	Environment lesting	
Company Name:	Bill to: (if different)		Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200, Danas, TX (214) 902-0300
Program: UST/PST PRP Brownfields RRC Superfund	Work Order Comments	www.xenco.com Page of			Work Order No:	
	Company Name: Program: UST/PST PRP	MS Bill to: (if different) Work Ord Company Name: Program: UST/PST PRP	Www.xenco. Bill to: (if different) Work Ord	MS Bill to: (If different) www.xenco. Company Name: Program: UST/PST □ PRP□	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Www.xenco. Work Ord Company Name: Program: UST/PST PRP	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 Www.xenco. Work Order N Work Order N

Reporting: Level II | Level III | PST/UST | EDD

TRRP _

Level IV

ADaPT

Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn Sand subcontractors. It assigns standard terms and conditions ent if such issess are due to circumstances beyond the control tanalyzed. These terms will be enforced unless previously negotiated. Relinquished by: (Signature) Received by: (Signature) Received by: (Signature) Date/Time	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 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K of service. Eurofins Xenov Mil be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the clent if such losses are due to circumstances beyond the control of Eurofins Xenov Mil be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the clent if such losses are due to circumstances beyond the control of Eurofins Xenov Amilimum change of \$55.00 will be applied to each project and a change of \$5 for each sample submitted to Eurofins Xenov, but not analyzed. These terms will be enforced unless previously negotiated. Received by: (Signature)	N Sb As Ba Be B Co RA Sb As Ba Be Cd RA Sb As Ba Be Cd rexpenses incurred by the client ted to Eurofins Xenco, but not an Date/Time	Texas 11 Al 6010 : 8RCR/m client company to the form of the sample submitted ch sample submitted	BRCRA 13PPM Texas 11 Al Sb As Ba Be B TCLP/SPLP 6010: BRCRA Sb As Ba Be Can a valid purchase order from client company to Eurofins Xenco, its affiliate not assume any responsibility for any bases or expenses incurred by the distand a charge of \$5 for each sample submitted to Eurofins Xenco, but not by: (Signature) Date/Time	nalyzed Received Received	200.8 / 6020: Metal(s) to be a label entry for the cost of sarge of \$85.00 will be app gnature)	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed Motice: Signature of this document and relinquishment of samples const of service. Eurofins Xenco will be liable only for the cost of samples and of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each the Relinquished by: (Signature) Recent Relinquished by: (Signature)
(DST 0.00 (DA) (DA) (DA) (DA) (DA) (DA) (DA) (DA)	Cr Co Cu Pb Mn Mo Ni Se Ag T d subcontractors. It assigns standard terms and cond if such losses are due to circumstances beyond the coabpaced. These terms will be enforced unless previously Relinquished by: (Signature)	Sb As Ba Be B Co Sb As Ba Be Cd urofins Xenco, its affiliates an penses incurred by the client to Eurofins Xenco, but not an Date/Time	Texas 11 Al 6010 : 8RCR/ m client company to thy for any basses or ea ch sample submitted	8RCRA 13PPM TCLP / SPLP sa valid purchase order for not assume any responsible or the same and a charge of \$5 for each a charg	n alyzed mples constitutes amples and shall lied to each proje	200.8 / 6020: Metal(s) to be a at and relinquishment of sa liable only for the cost of sarge of \$85.00 will be app gnature)	Total 200.7 / 6010 Circle Method(s) and Notice: Signature of this document of service. Eurofins Xenco will be of Eurofins Xenco. A minimum characteristics of the control o
Se Ag SiO ₂ Na Sr T Hg: 1631/245.1/	Cr Co Cu Pb Mn Mo Ni Se Ag T Cs Co Cu Pb Mn Mo Ni Se Ag T disubcontractors. It assigns standard terms and cond if such losses are due to circumstances beyond the co abyzed. These terms will be enforced unless previously	Sb As Ba Be B Co Sb As Ba Be Cd Sb As Ba Be Cd uriofins Xenco, its affiliates an penses Incurred by the client to Euroffins Xenco, but not an	Texas 11 Al 6010 : BRCRA m client company to fly for any losses or ex ch sample submitted	8RCRA 13PPM TCLP / SPLP sa valld purchase order for assume any responsibil change of \$5 force	nalyzed malyzed amples constitutes amples and shall i	200.8 / 6020: Metal(s) to be a lable only for the cost of sale of \$85.00 will be app	Total 200.7 / 6010 Circle Method(s) and Notice: Signature of this document of service. Eurofins Xenco will be of Eurofins Xenco. A minimum ch
Ni K Se Ag SiO ₂ Na Sr T Hg: 1631/245.1/	Cr Co Cu Fe Pb Mg Mn M		Texas 11 AI 6010 : 8RCR/	8RCRA 13PPM	nalyzed	200.8 / 6020: Metal(s) to be a	Total 200.7 / 6010 Circle Method(s) and
ONI K SE AG SIO ₂ Na Sr TI Sn U V Zn	d Ca Cr Co Cu Fe Pb Mg Mn M		Texas 11 Al	BRCRA 13PPM		200.8 / 6020:	Total 200.7 / 6010
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CAISO323							
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(Ostrocle:		V Y 1	71 0 1	7.30	-	0)	F502
		\ \ \ \ \ \	7.0	11:00	10-3-22	D)	F607
Sample Comments		Cont BT	Depth Comp C	Time Sampled	Date rix Sampled	tion Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC		PH XX	2	Corrected Temperature:	Corrected		Total Containers:
Zn Acetate+NaOH: Zn		}	7.5	Temperature Reading:	Temperat	Yes No N/A	Sample Custody Seals:
Na 25 203: NaSO 3		Pa	0		Correction Factor:	Yes No N/A	Cooler Custody Seals:
NaHSO 4: NABIS	890-3132 Chain of Custody	iram	ECO E		Thermometer ID:	Yes No	Samples Received Intact:
H₃PO ;: HP		eter	Yes No	Wet Ice:	(Yes) No	Temp Blank:	SAMPLE RECEIPT
2		-	by 4:30pm	the lab, if received by 4:30pm	*		
			received by	6	omo le	what to learn to	
			SMINHO	_	100 J	255278, -105J1027 Due Date:	
None: NO DI Water: H ₂ O		Pres.	WRush P		حر	STOLOGICALY	ěr:
Preservative Codes	ANALYSIS REQUEST		und	Turn Around	7	TIMO BIY	Project Name:

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3132-1

 SDG Number: 03D2057013

Login Number: 3132 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	

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3132-1

SDG Number: 03D2057013

Login Number: 3132 **List Source: Eurofins Midland** List Number: 2

List Creation: 10/04/22 10:34 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	N/A	

<6mm (1/4").



APPENDIX C

Photographic Log



Photographic Log COG Operating, LLC SEMU BMT NAPP2216134591



Photograph 1 Date: 7/25/2022
Description: View of the release area prior to remediation, looking south



Photograph 2 Date:10/3/2022

Description: View of the release area after excavation activities, looking east



Photograph 3 Date: 10/03/2022 Description: View of the release area after excavation activities, looking west



Photograph 4 Date: 10/03/2022

Description: View of the release after excavation activities, looking north



APPENDIX D

Final C141

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	NAPP2216134591
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible l	Party			OGRID		
Contact Name		Contact T	Contact Telephone			
Contact emai	Contact email		Incident #	t (assigned by OCL	0)	
Contact maili	ng address			<u> </u>		
			Location	of Release S	ource	
Latitude				Longitude		
			(NAD 83 in dec	cimal degrees to 5 deci	mal places)	
Site Name				Site Type		
Date Release	Discovered			API# (if ap	plicable)	
Unit Letter	Section	Township	Range	Cou	nty	
Surface Owner: State Federal Tribal Private (Name:) Nature and Volume of Release						
Crude Oil		Volume Release		calculations of specific		ne volumes provided below) overed (bbls)
Produced	Water	Volume Release	d (bbls)		Volume Rec	overed (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?		☐ Yes ☐ No			
Condensate Volume Released (bbls)		Volume Recovered (bbls)				
Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)	
Other (des	scribe)	Volume/Weight	Released (provide	e units)	Volume/Wei	ight Recovered (provide units)
Cause of Rele	ease					

Received by OCD: 11/29/2022/2:525184PM State of New Mexico
Page 2 Oil Conservation Division

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Incident ID	NAPP2216134591
District RP	
Facility ID	
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Was this a major release as defined by	If YES, for what reason(s) does the respo	nsible party consider this a major release?
19.15.29.7(A) NMAC?		
☐ Yes ☐ No		
If VFS, was immediate no	otice given to the OCD? By whom? To w	nom? When and by what means (phone, email, etc)?
II 125, was ininectate no	once given to the OCD. By whom: 10 wi	ioni: When and by what means (phone, eman, etc):
	Initial R	esponse
The responsible p	party must undertake the following actions immediate	ly unless they could create a safety hazard that would result in injury
☐ The source of the rele	ease has been stopped.	
☐ The impacted area has	s been secured to protect human health and	the environment.
Released materials ha	we been contained via the use of berms or	likes, absorbent pads, or other containment devices.
<u> </u>	ecoverable materials have been removed an	
If all the actions described	d above have <u>not</u> been undertaken, explain	why:
has begun, please attach a	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred blease attach all information needed for closure evaluation.
regulations all operators are public health or the environm failed to adequately investigations.	required to report and/or file certain release not ment. The acceptance of a C-141 report by the Cate and remediate contamination that pose a thro	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name		Title:
Signature:	tan Esparge	Date:
		Telephone:
OCD Only		
Received by:Jocelyn	Harimon	Date:06/10/2022

L48 Spill Volume Estimate Form NAPP2216134591/323 Received by OCD: 11/29/2022/2:52:18 PME & Number: SEMU BMT Battery water tank Asset Area: HPA03 Release Discovery Date & Time: 5/27/2022 1:40 Release Type: Produced Water Provide any known details about the event. SWD had no power causing tank to fill up and over flow Spill Calculation - Subsurface Spill - Rectangle Was the release on pad or off-pad? See reference table below Has it rained at least a half inch in the last 24 hours? See reference table below Total Estimated Length Width Estimated volume of each area Depth Soil Spilled-Fluid Saturation Volume of Spill (ft.) (ft.) (in.) (bbl.) (bbl.) Rectangle A 83.0 46 0 2 50 10.50% 141.584 14.866 75.0 Rectangle B 35.0 0.25 10.50% 9.734 1.022

into a series of rectangles

Convert Irregular shape

490 34.0

290

Rectangle C

Rectangle D

Rectangle E

Rectangle F

Rectangle G

Rectangle H

Rectangle I

142 0

1100

7.0

Released to Imaging: 1/4/2023/11:44:06/AM1

200

3.50

0.50

10.50%

10.50%

15.16%

0.000 0.000 0.000 0.000

30.542

159 903

12.356

0.000

Total Volume Release:

0.000

0.000 0.000 0.000

> 0.000 37.758

3 207

16 790

1.873

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Incident ID	NAPP2216134591
District RP	
Facility ID	fOY1727735163
Application ID	

Site Assessment/Characterization

this information must be provided to the appropriate district office no later than 90 days after the release discovery date.			
What is the shallowest depth to groundwater beneath the area affected by the release?	>100 feet bgs		
Did this release impact groundwater or surface water?	☐ Yes ⊠ No		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes X No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No		
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No		
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No		
Are the lateral extents of the release within 300 feet of a wetland?	Yes X No		
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No		
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No		
Did the release impact areas not on an exploration, development, production, or storage site?	X Yes No		
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.			
Characterization Depart Charletter. Each of the following items must be included in the report			

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.

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Incident ID	NAPP2216134591	
District RP		
Facility ID	fOY1727735163	
Application ID		

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release no public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a the addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	och does not relieve the operator of liability should their operations have reat to groundwater, surface water, human health or the environment. In
Printed Name: Bryce Wagoner	Title:Permian HSE Specialist II
Signature: Typ-Wyr-1/1	Date:11/28/2022
email: bryce.wagoner@mavresources.com	Telephone:928-241-1862
OCD Only	
Received by:	Date:11/29/2022

of New Mexico

Incident ID NAPP2216134591
District RP
Facility ID fOY1727735163
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.	
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)	
☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)	
□ Description of remediation activities	
	,
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: Bryce Wagoner	
OCD Only	_
Received by: Date:11/29/2022	
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:	
Printed Name: Jennifer Nobul Title: Environmental Specialist A	



APPENDIX E

NMOCD Notifications

From: OCDOnline@state.nm.us

To: <u>Kalei Jennings</u>

Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 138121

Date: Wednesday, August 31, 2022 11:14:29 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Kalei Jennings for Maverick Permian LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2216134591, with the following conditions:

• Remediation Plan Approved with Conditions. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater. Please delineate soils both vertically and laterally to 600 mg/kg chloride and 100 mg/kg TPH.

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you, Jennifer Nobui Environmental Specialist-Advanced 505-470-3407 Jennifer.Nobui@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505 From: Nobui, Jennifer, EMNRD

To: <u>Kalei Jennings</u>

 Cc:
 Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD

 Subject:
 FW: [EXTERNAL] Maverick- Sampling Notification (Week of 09/26/22-09/30/22)

Date: Thursday, September 22, 2022 2:12:51 PM

Attachments: <u>image001.png</u>

image002.png image003.png image004.png

[**EXTERNAL EMAIL**]

Kalei

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

Thanks,

Jennifer Nobui

From: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Sent: Thursday, September 22, 2022 2:08 PM

To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>

Subject: Fw: [EXTERNAL] Maverick- Sampling Notification (Week of 09/26/22-09/30/22)

From: Kalei Jennings < kjennings@ensolum.com > Sent: Thursday, September 22, 2022 2:04 PM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 09/26/22-09/30/22)

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

All,

Maverick Natural Resources plans to complete final sampling activities at the following sites the week of September 26, 2022.

Monday:

- SEMU BMT/NAPP2216134591
- MCA 2A Main Line / NAPP2225231205

Tuesday:

- SEMU BMT/NAPP2216134591
- MCA 2A Main Line / NAPP2225231205

Wednesday:

Thursday:

• MCA 94 / NAPP2212531906

Friday:

• MCA 94 / NAPP2212531906

Thank you,



Kalei Jennings Senior Scientist 817-683-2503 Ensolum, LLC

From: <u>Nobui, Jennifer, EMNRD</u>

To: <u>Kalei Jennings</u>

Cc: <u>Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD</u>

Subject: FW: [EXTERNAL] Maverick- Sampling Notifications (10/3/22-10/7/22)

Date: Thursday, September 29, 2022 2:42:15 PM

[**EXTERNAL EMAIL**]

Kalei

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

Thanks,

Jennifer Nobui

From: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Sent: Thursday, September 29, 2022 1:58 PM

To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD

<Nelson.Velez@emnrd.nm.gov>

Subject: Fw: [EXTERNAL] Maverick- Sampling Notifications (10/3/22-10/7/22)

From: Kalei Jennings < kjennings@ensolum.com > Sent: Thursday, September 29, 2022 11:15 AM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Maverick- Sampling Notifications (10/3/22-10/7/22)

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

All,

Maverick Natural Resources (Maverick) plans to complete final sampling activities at the following sites the week of October 3, 2022.

Monday (10/3/2022)

- SEMU BMT/ NAPP2216134591
- MCA 94/ NAPP2212531906

Tuesday (10/4/2022)

• SEMU BMT/ NAPP2216134591

Wednesday (10/5/2022)

• SEMU BMT/ NAPP2216134591

Thursday (10/6/2022)

• MCA 94/ NAPP2212531906

Thank you,

Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC

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

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 162268

CONDITIONS

Operator:	OGRID:
Maverick Permian LLC	331199
1111 Bagby Street Suite 1600	Action Number:
Houston, TX 77002	162268
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	1/4/2023