ENSOLUM

April 14, 2023

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

Re: Closure Request
MCA Unit #151
Incident Number NAPP2235377174
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the MCA Unit #151 (Site). The purpose of the Site activities was to address impacts to soil resulting from a release of produced water at the Site. Based on excavation activities and laboratory analytical results from subsequent soil sampling events, Maverick is submitting this *Closure Request*, which summarizes completed remedial actions and requesting closure for Incident Number NAPP2235377174.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit F, Section 28, Township 17 South, Range 32 East, in Lea County, New Mexico (32.8085°, -103.7714°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On December 13, 2022, an injection line developed a hole due to suspected inner corrosion, resulting in the release of approximately 22.4 barrels (bbls) of produced water onto the pad and adjacent pasture. Vacuum trucks were immediately dispatched and approximately 5 bbls of produced water were recovered. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141), which was received December 19, 2022, and subsequently assigned Incident Number NAPP2235377174.

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 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be between 51 feet and 100 feet below ground surface (bgs) based on the nearest available groundwater well data. The closest permitted

groundwater wells with depth to groundwater data are the New Mexico Office of the State Engineer (NMOSE) wells RA 12020 POD 1 and RA 12020 POD 3, which are temporary monitoring wells installed to track migration of offsite groundwater impacts associated with a release north of the Site at the Maljamar E&P. NMOSE well RA 12020 POD 1 is located cross/upgradient approximately 940 feet northwest of the Site. The groundwater well has a reported depth to groundwater of 81.5 feet bgs from September 2013. NMOSE well RA 12020 POD 3, located upgradient approximately 1,050 miles northeast of the Site, has a reported depth to groundwater of 84.35 feet bgs from July 2015. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

While NMOSE well RA 12020 POD 1 is within 1,000 feet of the northern release extent edge, it is a temporary monitoring well utlized to support efforts in monitoring groundwater impacts from a release eminating approximately 2,000 feet north-northwest of the Site. Groundwater flow for the northern release has been documented to generally flow to the east-southeast, which is cross/upgradient of the Site. The temporary monitoring well is not used for domestic or livestock purposes, but soley to monitor impacts originating from the offsite location. Based on the use of the water well, the distance between the well and the release extent, this monitoring well does not appear to be a potential conduit for Site impacts to migrate to the subsurface and impact groundwater and therefore is not considered a sensitive receptor. As such, Maverick is requesting a variance to 19.15.29.12C.(4)(c)(ii) in application to the temporary monitoring well.

The closest continuously flowing or significant watercourse to the Site is a playa, located approximately 4,145 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from a spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

INITIAL SITE ASSESSMENT

On December 19, 2022, Ensolum personnel visited the Site to evaluate the release area based on information provided on the Form C-141, observed surface soil staining, and soil sample field screening results. The observed soil stained footprint, defined as the release extent, was confirmed to originate in the pasture and migrate southwest following the topographic contours from the point of release. The release extent measured approximately 3,789 square feet.

On January 12, 2023, Ensolum was onsite to advance five boreholes (BH01 through BH05) utilizing a hand auger to assess soil within the release extent prior to initiating excavation activities. The purpose of hand augering was to confirm the depth of excavation required to achieve the Site Closure Criteria and/or the reclamation requirement, where applicable. Ensolum personnel field screened soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips.

The release extent and boreholes were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. The lithology and field screening results were recorded on a Lithologic/Soil Sampling Log, which are provided in Appendix B.

Field screening results supported the excavation activities at the Site, which are described in greater detail below.

EXCAVATION SOIL SAMPLING ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between January 16, 2023 and March 28, 2023, Ensolum personnel oversaw the excavation of impacted soil performed via mechanical equipment. Impacted soil was excavated from the release area as indicated by visible staining and field screening activities. Soil was field screened for VOCs and chloride. Photographic documentation of excavation activites is included as a photographic log in Appendix C.

Following removal of impacted soil, 5-point composite excavation confirmation 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. Confirmation soil samples FS01 through FS39 were collected from the floor of the excavation at depths ranging from 2 feet to 9 feet bgs. Composite soil samples SW01 through SW11 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 5.5 feet bgs. For areas of the excavation where the excavation depth did not exceed 2 feet bgs, sidewall soil was incorporated into nearby floor samples. The excavation extent and excavation soil sample locations are presented on Figure 3.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents 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 all excavation confirmation soil samples indicated COC concentrations were compliant with the applicable Closure Criteria and/or reclamation requirement, as appropriate, with the exception of composite floor soil samples FS25, FS26, FS30, FS31, and FS36 and composite sidewall soil samples SW04 and SW09. Additional soil was removed from the respective areas and subsequent 5-point composite excavation confirmation samples were collected from new excavation floors and sidewalls; laboratory analytical results for the excavation soil samples indicated COC concentrations were compliant with the applicable Closure Criteria and/or reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

The excavation measured approximately 7,373 square feet in areal extent. A total of approximately 1,365 cubic yards of impacted soil was excavated, transported, and properly disposed at R360 Environmental Solutions in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

CLOSURE REQUEST

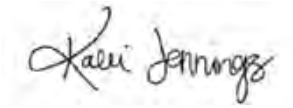
Excavation and delineation activities were conducted at the Site to address the release of produced water and crude oil associated with Incident Number NAPP2235377174. Initial spill response efforts and excavation of impacted soil mitigated impacts at the Site following the December 2022 release.

Depth to groundwater has been estimated to be between 81.5 feet and 84.35 feet bgs. While a well is within 1,000 feet of the northern release extent edge, it is a temporary monitoring well utlized to support efforts in monitoring groundwater impacts from a release eminating approximately 2,000 feet north-northwest of the Site. Groundwater flow for the northern release has been documented to generally flow to the east-southeast, which is cross/upgradient of the Site. The temporary monitoring well is not used for domestic or livestock purposes, but soley to monitor impacts originating from the offsite location. Based on the use of the water well, the distance between the well and the release extent, this monitoring well does not appear to be a potential conduit for Site impacts to migrate to the subsurface and impact groundwater and therefore is not considered a sensitive receptor. As such, Maverick is requesting a variance to 19.15.29.12C. (4)(c)(ii) and assess all other sensitive receptors for determining the proper Site-specific Closure Criteria for which there are none except for the presence of groundwater between 51 feet and 100 feet bgs.

Maverick believes these remedial actions are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2235377174. Maverick will backfill the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture. Sampling notifications sent to NMOCD are included in Appendix E. The Final C-141 is included in Appendix F.

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, PG
Senior Managing Geologist

cc: Bryce Wagoner, Maverick Permian, LLC
Bureau of Land Management

Appendices:

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

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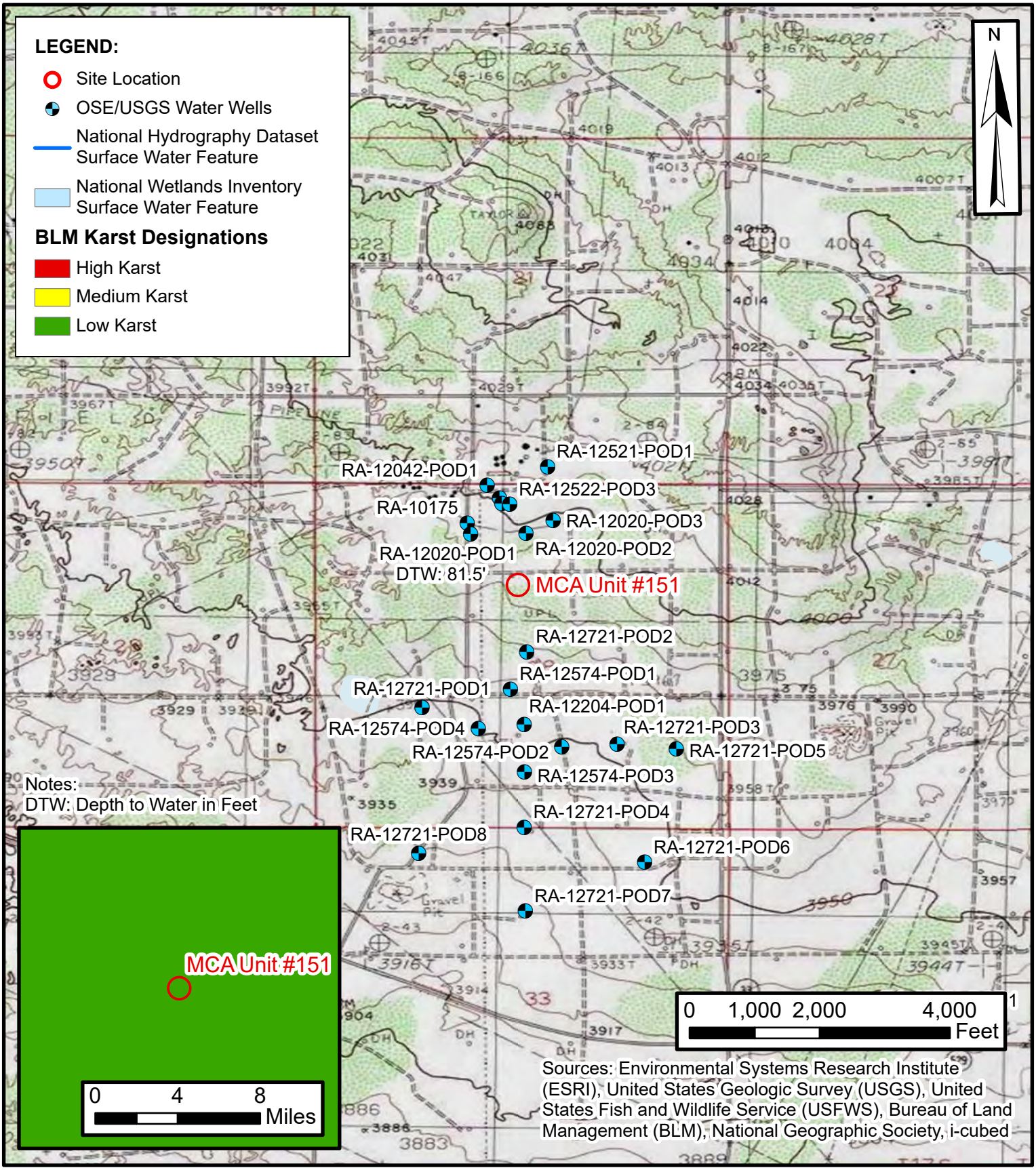
FIGURES



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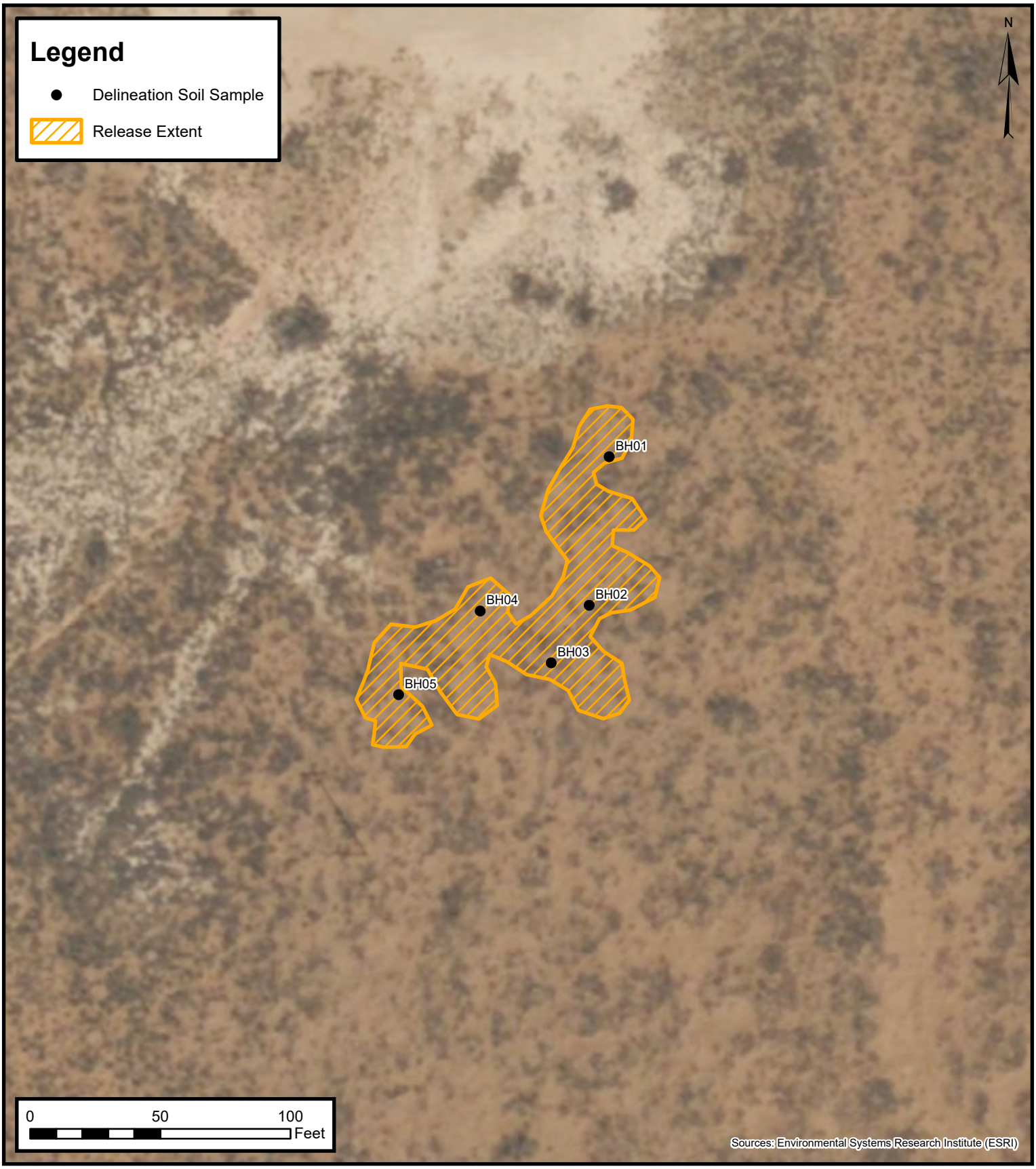
Environmental, Engineering and Hydrogeologic Consultants

SITE LOCATION MAP

MCA Unit #151
Maverick Permian, LLC
Incident Number: NAPP2235377174
Unit F, Sec 28, T17S, R32E
Lea County, New Mexico

FIGURE
1



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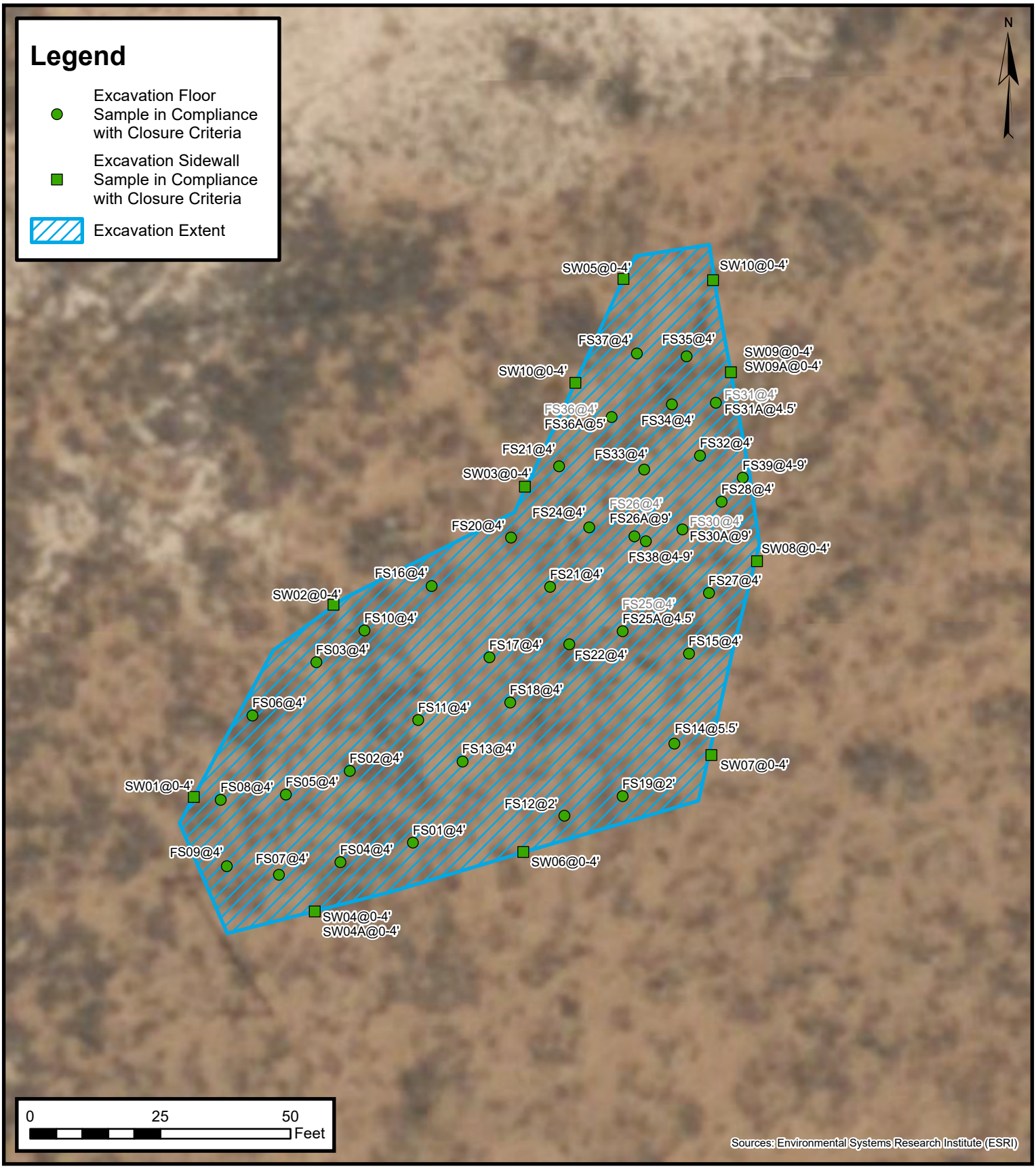
Delineation Soil Sample Locations

Maverick Permian, LLC
MCA Unit #151
Unit F, Section 28, Township 17 South, Range 32 East
Lea County, New Mexico
Project Number: 03D2057056

FIGURE
2



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Delineation Soil Sample Locations

Maverick Permian, LLC
MCA Unit #151
Unit F, Section 28, Township 17 South, Range 32 East
Lea County, New Mexico
Project Number: 03D2057056

FIGURE
2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA Unit #151
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Excavation Floor Soil Samples										
FS01	01/16/2023	4	<0.00199	<0.00398	<49.9	106	<49.9	106	106	56.0
FS02	01/16/2023	4	<0.00199	<0.00398	<50.0	152	<50.0	152	152	5.15
FS03	01/16/2023	4	<0.00199	<0.00398	<50.0	273	<50.0	273	273	98.5
FS04	01/16/2023	4	<0.00200	<0.00399	<49.9	89.4	<49.9	89.4	89.4	54.3
FS05	01/16/2023	4	<0.00200	0.0196	<49.9	73.4	<49.9	73.4	73.4	<4.98
FS06	01/16/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	5.81
FS07	01/16/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	46.0
FS08	01/16/2023	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	52.5
FS09	01/16/2023	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	42.9
FS10	01/17/2023	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	64.1
FS11	01/17/2023	4	<0.0996	<0.199	<49.9	<49.9	<49.9	<49.9	<49.9	94.1
FS12*	01/17/2023	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	61.1
FS13	01/17/2023	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	66.4
FS14	01/17/2023	5.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	58.9
FS15	01/17/2023	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	57.0
FS16	01/17/2023	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	84.2
FS17	01/17/2023	4	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	14.4
FS18	01/17/2023	4	<0.00199	0.00419	<49.9	<49.9	<49.9	<49.9	<49.9	92.0
FS19*	01/16/2023	2	<0.00201	<0.00402	<50.0	98.5	<50.0	98.5	98.5	55.3

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA Unit #151
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
FS20	01/17/2023	4	<0.00199	0.0185	<49.9	<49.9	<49.9	<49.9	<49.9	15.5
FS21	01/17/2023	4	<0.00200	<0.00399	<49.9	127	<49.9	127	127	36.3
FS22	01/17/2023	4	<0.00201	<0.00402	<50.0	55.9	<50.0	55.9	55.9	744
FS23	01/17/2023	4	<0.0401	<0.0802	<49.9	73.1	<49.9	73.1	73.1	2,440
FS24	01/17/2023	4	<0.0398	0.106	<49.9	583	<49.9	583	583	2,170
FS25	01/17/2023	4	<0.0398	0.375	70.2	1,380	<49.9	**1,450**	1,450	388
FS25	02/17/2023	4.5	<0.00200	<0.00399	<49.8	73.2	<49.8	73.2	73.2	40.7
FS26	01/17/2023	4	<0.0399	1.50	167	1,450	<49.9	**1,620**	1,620	896
FS26	02/17/2023	9	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	140
FS27	01/17/2023	4	<0.0402	5.10	120	776	<50.0	896	896	113
FS28	01/17/2023	4	<0.0402	0.658	<49.9	285	<49.9	285	285	1,050
FS29	01/16/2023	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	9.89
FS30	01/17/2023	4	<0.0994	21.6	428	2,280	309	**2,589**	**3,020**	796
FS30	02/17/2023	9	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	15.1
FS31	01/17/2023	4	<0.0998	38.3	498	2,940	409	**3,349**	**3,850**	745
FS31	02/17/2023	4.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	4,480
FS32	01/17/2023	4	<0.0996	2.19	<50.0	246	<50.0	246	246	2,830
FS33	01/17/2023	4	<0.0199	0.12	<49.9	314	<49.9	314	314	2,940
FS34	01/17/2023	4	<0.0201	0.16	<49.9	351	<49.9	351	351	2,930
FS35	01/17/2023	4	<0.0998	1.28	<50.0	668	80.0	748	748	2,010
FS36	01/17/2023	4	<0.101	7.40	136	907	120	**1,027**	1,160	1,750
FS36	02/17/2023	5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	3,840

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA Unit #151
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**10,000**
FS37	01/17/2023	4	<0.0990	1.07	<49.9	639	78.8	639	718	2,250
FS38	03/28/2023	4 - 9	<0.00200	<0.00401	<49.9	545	<49.9	545	545	492
FS39	03/28/2023	4 - 9	<0.00201	0.0345	<49.8	118	<49.8	118	118	671
Excavation Sidewall Soil Samples										
SW01*	01/16/2023	0 - 4	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05
SW02*	01/16/2023	0 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
SW03*	01/16/2023	0 - 4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
SW04*	01/16/2023	2 - 4	<0.00202	<0.00403	<49.9	147	<49.9	147	**147**	<4.98
SW04*	02/17/2023	2 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	56.8
SW05*	01/17/2023	0 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	4.96
SW06*	01/17/2023	0 - 4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
SW07*	01/17/2023	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<5.01
SW08*	01/17/2023	0 - 5.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<5.04
SW09*	01/17/2023	0 - 4	<0.00198	<0.00396	<50.0	131	<50.0	131	**131**	41.0
SW09*	02/17/2023	0 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	184
SW10*	01/17/2023	0 - 4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	6.91
SW11*	01/17/2023	0 - 4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	188

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMAC: New Mexico Administrative Code
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 I Closure Criteria or reclamation standard where applicable.*
Grey text represents samples that have been excavated
** - indicates application of reclamation requirement*

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APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

2013 OCT -7 P 12: 01

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): MW-21 POD1	OSE FILE NUMBER(S): RA-12020
WELL OWNER NAME(S): Phillips 66 Company	PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 420 S. Keller (1708-02 Phillips Bldg.)	CITY: Bartlesville STATE: OK ZIP: 74004

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	48	38.1	N
LONGITUDE	103	46	24.4	W

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

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE: Maljamar Rd (cr 126) Gas Plant

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
9/24/2013	9/25/2013	120.0		81.5

COMPLETED WELL IS: ( ) ARTESIAN ( ) DRY HOLE (•) SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): 81.5

DRILLING FLUID: ( ) AIR ( ) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: (•) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0.0	75.0	6.0	Sch. 40 PVC Riser	4.0 TPI	2.0	1/4"	
75.0	110.0	6.0	Sch. 40 PVC Screen	4.0 TPI	2.0	1/4"	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
120.0	110.0	6.0	Bentonite grout	3 sacks	Hand Mix
110.0	71.0	6.0	8/16 Sand	14 sacks	Hand Mix
71.0	19.0	6.0	Bentonite Pellets	19 sacks	Hand Mix
19.0	0.0	6.0	Cement	3.7943	Hand Mix

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	RA-12020	POD NUMBER	1	TRN NUMBER	534328
LOCATION	EXPL (mon. well)	17S.32E.28.122			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0.0	4.0	4.0	Reddish brown sand	○ Y ◉ N	
4.0	8.0	4.0	Reddish sandy clay	○ Y ◉ N	
8.0	11.0	3.0	Caliche	○ Y ◉ N	
11.0	20.0	9.0	Reddish sand/sandstone	○ Y ◉ N	
20.0	28.0	8.0	Light brown sand w/gravel mixed	○ Y ◉ N	
28.0	34.0	6.0	Brown sand	○ Y ◉ N	
34.0	42.0	8.0	Reddish brown sand/sandstone	○ Y ◉ N	
42.0	53.0	11.0	Dark brown sandstone	○ Y ◉ N	
53.0	58.0	5.0	Grayish brown sandstone	○ Y ◉ N	
58.0	70.0	12.0	Yellowish brown sandstone	○ Y ◉ N	
70.0	111.0	41.0	Layers of brown, grennish, and reddish sand/sandstone	◉ Y ○ N	
111.0	120.0	9.0	Dark reddish brown silty clayey shale	◉ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION:

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

William B. Atkins

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

SIGNATURE OF DRILLER / PRINT SIGNEE NAME

10-1-13
DATE

FOR OSE INTERNAL USE

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

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): MW-23 POD3	OSE FILE NUMBER(S): RA 12020
WELL OWNER NAME(S): Phillips 66 Company	PHONE (OPTIONAL): 918-977-4094
WELL OWNER MAILING ADDRESS: 420 S Keeler (1708-02 Phillips Bldg)	CITY: Bartlesville STATE: OK ZIP: 74004

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	48	40.09	N
LONGITUDE	103	46	11.90	W

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

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE: Maljamar Gas Plant

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7/13/2015	7/15/2015	112.0	112.0	83.0

COMPLETED WELL IS: ( ) ARTESIAN ( ) DRY HOLE (•) SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): 84.35

DRILLING FLUID: (•) AIR ( ) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ( ) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0.0	73.0	6 1/8	Sch. 40 PVC Riser	Threads	2.0	1/4"	
73.0	108.0	6 1/8	Sch. 40 PVC Screen	Threads	2.0	1/4"	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
112.0	70.0	6 1/8	8/16 Sand	16 Sacks	Hand Mix
70.0	10.0	6 1/8	Bentonite Pellets	20 Sacks	Hand Mix
10.0	0.0	6 1/8	Cement	1.63	Hand Mix

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER: RA-12020 POD NUMBER: 3 TRN NUMBER: 534328

LOCATION: 17S.32E.28.212 PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0.0	4.0	4.0	Brown sand	○ Y ◉ N	
4.0	6.0	2.0	Redish brown clayey sand/sandy clay	○ Y ◉ N	
6.0	11.0	5.0	Brown sandstone	○ Y ◉ N	
11.0	15.0	4.0	Reddish brown sandstone/sand	○ Y ◉ N	
15.0	32.0	17.0	Reddish brown sand	○ Y ◉ N	
32.0	40.0	8.0	Reddish brown sandy shale	○ Y ◉ N	
40.0	48.0	8.0	Light brown sand/sandstone	○ Y ◉ N	
48.0	54.0	6.0	"Firm" brown sandstone	○ Y ◉ N	
54.0	56.0	2.0	Reddish brown sandstone	○ Y ◉ N	
56.0	58.0	2.0	Green sansy shale	○ Y ◉ N	
58.0	70.0	12.0	Layers of reddish, brown and green sandstone	○ Y ◉ N	
70.0	96.0	26.0	Yellowish green sandstone	◉ Y ○ N	
96.0	96.5	0.5	Light brown sandstone "firm"	◉ Y ○ N	
96.5	101.0	4.5	Gray silty shale	◉ Y ○ N	
101.0	104.0	3.0	Light brown w/gray sandstone mix	○ Y ○ N	
104.0	112.0	8.0	Yellow brown sandstone	○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION:

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

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

John White — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

7.24.15 — DATE

FOR OSE INTERNAL USE

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

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	**POD Number**	**Q64**	**Q16**	**Q4**	**Sec**	**Tws**	**Rng**	**X**	**Y**
	RA 12020 POD2	3	1	2	28	17S	32E	615046	3630960

Driller License: **Driller Company:**

Driller Name:

Drill Start Date: **Drill Finish Date:** **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

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

Casing Size: **Depth Well:** **Depth Water:**

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: RA 12020 **Subbasin:** RA **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: PHILLIPS 66 COMPANY

Contact: TOM WYNN

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	534328	EXPL	2013-09-20	PMT	LOG	RA 12020	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
RA 12020 POD1		Shallow	2	2	1	28	17S	32E	614828	3630954	MW-21
RA 12020 POD2			3	1	2	28	17S	32E	615046	3630960	
RA 12020 POD3		Shallow	2	1	2	28	17S	32E	615152	3631019	MW-23

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: BH01		Date: 1.12.23	
Site Name: MCA 151			
Incident Number: NAPP2235377174			
Job Number: 03D2057056			
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: HAND AUGER	
Coordinates: ON FIELD MAPS	Hole Diameter:	Total Depth: 6'	

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			N			1'	SPSM	SAND RED BROWN POORLY GRADED ~~RED~~ STAIN STRONG ODOR medium-fine grained CS
D	>3589	1.3	N			2'	SPSM	SAA
D	>3589	79	N			3'	SPSM	SAA
W	>3589	65	N			4'	SP SM	SAA
W	>3589	7.0	N			5'	SP SM	SAND GREY BROWN POORLY graded NO STAIN, odor medium to fine grained
W	>3589	37	N			6'	SPSM	~~Stopped~~ SAA CS

ENSOLUM

Sample Name: BH02	Date: 1.12.23	
Site Name: MCA 151		
Incident Number: NAPP2235377174		
Job Number: 03D205 7056		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: HAND AUGER
Coordinates: ON FIELD MAPS	Hole Diameter:	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			Y			1'	sp-sm	SAND Red brown poorly graded stain strong odor, medium-fine grain CS
D	4860	1030	N			2'	sp-sm	SAA
W	5292	670	N			3'	sp-sm	SAA
W	4760	684	N			4'	sp-sm	SAND GREY BROWN SAND poorly graded no stain odor, medium to fine grained

ENSOLUM

Sample Name: BH03	Date: 1-12-23	
Site Name: MCA 151		
Incident Number: nAPP2235377174		
Job Number: 03D205 7056		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CJ	Method: HAND AUGER
Coordinates: SEE FIELD MAPS	Hole Diameter:	Total Depth: 3.5'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			N			1'	Sp-Sm	SAND Red Brown Poorly graded No stain ~~odor~~ Strong odor medium-fine grained.
D	ND	2.3	N			2'	Sp-Sm	SAA
W	ND	1.2	N			3'	SpSm	~~SAA~~
						3.5'	Cche	REFUSAL CALICHE

ENSOLUM

Sample Name: BH04	Date: 1.12.23		
Site Name: MCA 151			
Incident Number: NAPP2235377174			
Job Number: 03D2057056			
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: HAND AUGER	
Coordinates: See field maps	Hole Diameter:	Total Depth: 4'	

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			Y			1'	SP-SM	SAND RED BROWN POORLY GRADED stained; strong odor, medium-fine grained CS
D	ND	285	N			2'	SP-SM	SAA
W	ND	109	N			3'	SP-SM	SAA
W	ND	61	N			4'	SP-SM	SAA

ENSOLUM

Sample Name: BH05		Date: 1.12.23	
Site Name: MCA 151			
Incident Number: NAPP2035377174			
Job Number: 03D2058056			
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS	Method: HAND AUGER	
Coordinates: SEE FIELD MAPS	Hole Diameter:	Total Depth: 4'	

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			Y			1'	SP SM	SAND RED BROWN POORLY GRADED STAINED, STRONG ODOR MEDIUM-FINE GRAINED
D	ND	1502	N			2'	SP-SM	SAA
W	ND	775	N			3'	SP-SM	SAA
W	ND	280	N			4'	SP-SM	SAA

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
Maverick Permian, LLC
MCA Unit #151
Incident Number NAPP2235377174

Photograph 1 **Date: 12/13/2022**
Description: Initial release discovery, facing southwest

Photograph 2 **Date: 12/13/2022**
Description: Initial release discovery, facing northeast

Photograph 3 **Date: 12/19/2022**
Description: Excavation activites, facing northeast

Photograph 4 **Date: 1/16/2023**
Description: Excavation activites, facing northeast

ENSOLUM

Photographic Log
Maverick Permian, LLC
MCA Unit #151
Incident Number NAPP2235377174

Photograph 5 **Date: 1/17/2023**
Description: Excavation activites, facing south

Photograph 6 **Date: 2/17/2023**
Description: Final excavation extent, facing southwest

Photograph 7 **Date: 2/17/2023**
Description: Final excavation extent, facing south

Photograph 8 **Date: 2/17/2023**
Description: Final excavation extent, facing north

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/2/2023 1:09:10 PM

JOB DESCRIPTION

MCA 151
SDG NUMBER 03D2057056

JOB NUMBER

890-3885-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

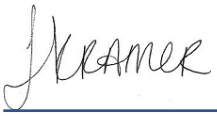
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: MCA 151

Laboratory Job ID: 890-3885-1
SDG: 03D2057056

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	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
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Job ID: 890-3885-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3885-1

Receipt
The samples were received on 1/19/2023 11:42 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS20 (890-3885-1), FS21 (890-3885-2), FS22 (890-3885-3), FS23 (890-3885-4), FS24 (890-3885-5), FS25 (890-3885-6), FS26 (890-3885-7), FS27 (890-3885-8), FS28 (890-3885-9) and FS29 (890-3885-10).

GC VOA
Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-44726 and analytical batch 880-44694 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-44733 and analytical batch 880-44898 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS22 (890-3885-3), FS23 (890-3885-4) and FS24 (890-3885-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-44925 and analytical batch 880-44988 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-24218-A-1-C MS). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44666 and analytical batch 880-44721 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS20

Lab Sample ID: 890-3885-1
Matrix: Solid
Date Collected: 01/17/23 10:45
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:13	01/28/23 07:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:13	01/28/23 07:07	1
Ethylbenzene	**0.00536**		0.00199		mg/Kg		01/25/23 14:13	01/28/23 07:07	1
m-Xylene & p-Xylene	**0.00878**		0.00398		mg/Kg		01/25/23 14:13	01/28/23 07:07	1
o-Xylene	**0.00433**		0.00199		mg/Kg		01/25/23 14:13	01/28/23 07:07	1
Xylenes, Total	**0.0131**		0.00398		mg/Kg		01/25/23 14:13	01/28/23 07:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*01/25/23 14:13*	*01/28/23 07:07*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*01/25/23 14:13*	*01/28/23 07:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0185**		0.00398		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 01:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 01:36	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*01/31/23 14:00*	*02/02/23 01:36*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/31/23 14:00*	*02/02/23 01:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.5**		5.00		mg/Kg			01/25/23 15:49	1

Client Sample ID: FS21

Lab Sample ID: 890-3885-2
Matrix: Solid
Date Collected: 01/17/23 11:05
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 07:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 07:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 07:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/25/23 14:13	01/28/23 07:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 07:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/23 14:13	01/28/23 07:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/25/23 14:13*	*01/28/23 07:28*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS21

Lab Sample ID: 890-3885-2
Matrix: Solid
Date Collected: 01/17/23 11:05
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*01/25/23 14:13*	*01/28/23 07:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**127**		49.9	mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 14:00	02/02/23 01:58	1
Diesel Range Organics (Over C10-C28)	**127**		49.9	mg/Kg		01/31/23 14:00	02/02/23 01:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:00	02/02/23 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*01/31/23 14:00*	*02/02/23 01:58*	*1*
o-Terphenyl	*103*		*70 - 130*	*01/31/23 14:00*	*02/02/23 01:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.3**		5.02	mg/Kg			01/25/23 15:54	1

Client Sample ID: FS22

Lab Sample ID: 890-3885-3
Matrix: Solid
Date Collected: 01/17/23 11:10
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/25/23 14:13	01/28/23 07:49	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/25/23 14:13	01/28/23 07:49	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/25/23 14:13	01/28/23 07:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/25/23 14:13	01/28/23 07:49	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/25/23 14:13	01/28/23 07:49	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/25/23 14:13	01/28/23 07:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/25/23 14:13*	*01/28/23 07:49*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*01/25/23 14:13*	*01/28/23 07:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**55.9**		50.0	mg/Kg			02/02/23 12:39	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS22

Lab Sample ID: 890-3885-3
Matrix: Solid
Date Collected: 01/17/23 11:10
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 14:00	02/02/23 02:19	1
Diesel Range Organics (Over C10-C28)	**55.9**		50.0		mg/Kg		01/31/23 14:00	02/02/23 02:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 14:00	02/02/23 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*01/31/23 14:00*	*02/02/23 02:19*	*1*
o-Terphenyl	*111*		*70 - 130*	*01/31/23 14:00*	*02/02/23 02:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**744**		5.01		mg/Kg			01/25/23 15:59	1

Client Sample ID: FS23

Lab Sample ID: 890-3885-4
Matrix: Solid
Date Collected: 01/17/23 12:05
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0401	U	0.0401		mg/Kg		01/25/23 14:13	01/28/23 08:09	20
Toluene	<0.0401	U	0.0401		mg/Kg		01/25/23 14:13	01/28/23 08:09	20
Ethylbenzene	<0.0401	U	0.0401		mg/Kg		01/25/23 14:13	01/28/23 08:09	20
m-Xylene & p-Xylene	<0.0802	U	0.0802		mg/Kg		01/25/23 14:13	01/28/23 08:09	20
o-Xylene	<0.0401	U	0.0401		mg/Kg		01/25/23 14:13	01/28/23 08:09	20
Xylenes, Total	<0.0802	U	0.0802		mg/Kg		01/25/23 14:13	01/28/23 08:09	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*01/25/23 14:13*	*01/28/23 08:09*	*20*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/25/23 14:13*	*01/28/23 08:09*	*20*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0802	U	0.0802		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**73.1**		49.9		mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 02:40	1
Diesel Range Organics (Over C10-C28)	**73.1**		49.9		mg/Kg		01/31/23 14:00	02/02/23 02:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 02:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*01/31/23 14:00*	*02/02/23 02:40*	*1*
o-Terphenyl	*111*		*70 - 130*	*01/31/23 14:00*	*02/02/23 02:40*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS23

Lab Sample ID: 890-3885-4
Matrix: Solid
Date Collected: 01/17/23 12:05
Date Received: 01/19/23 11:42
Sample Depth: 4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2440**		25.0		mg/Kg			01/25/23 16:04	5

Client Sample ID: FS24

Lab Sample ID: 890-3885-5
Matrix: Solid
Date Collected: 01/17/23 12:10
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0398	U	0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:30	20
Toluene	<0.0398	U	0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:30	20
Ethylbenzene	**0.0482**		0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:30	20
m-Xylene & p-Xylene	<0.0797	U	0.0797		mg/Kg		01/25/23 14:13	01/28/23 08:30	20
o-Xylene	**0.0577**		0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:30	20
Xylenes, Total	<0.0797	U	0.0797		mg/Kg		01/25/23 14:13	01/28/23 08:30	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*01/25/23 14:13*	*01/28/23 08:30*	*20*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/25/23 14:13*	*01/28/23 08:30*	*20*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.106**		0.0797		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**583**		49.9		mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 03:02	1
Diesel Range Organics (Over C10-C28)	**583**		49.9		mg/Kg		01/31/23 14:00	02/02/23 03:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*01/31/23 14:00*	*02/02/23 03:02*	*1*
o-Terphenyl	*106*		*70 - 130*	*01/31/23 14:00*	*02/02/23 03:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2170**	**F1**	25.0		mg/Kg			01/25/23 16:09	5

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS25

Lab Sample ID: 890-3885-6
Matrix: Solid
Date Collected: 01/17/23 12:15
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0398	U	0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:50	20
Toluene	<0.0398	U	0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:50	20
Ethylbenzene	**0.104**		0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:50	20
m-Xylene & p-Xylene	**0.176**		0.0795		mg/Kg		01/25/23 14:13	01/28/23 08:50	20
o-Xylene	**0.0950**		0.0398		mg/Kg		01/25/23 14:13	01/28/23 08:50	20
Xylenes, Total	**0.271**		0.0795		mg/Kg		01/25/23 14:13	01/28/23 08:50	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/25/23 14:13*	*01/28/23 08:50*	*20*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/25/23 14:13*	*01/28/23 08:50*	*20*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.375**		0.0795		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1450**		49.9		mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**70.2**		49.9		mg/Kg		01/31/23 14:00	02/02/23 03:23	1
Diesel Range Organics (Over C10-C28)	**1380**		49.9		mg/Kg		01/31/23 14:00	02/02/23 03:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*01/31/23 14:00*	*02/02/23 03:23*	*1*
o-Terphenyl	*114*		*70 - 130*	*01/31/23 14:00*	*02/02/23 03:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**388**		5.02		mg/Kg			01/25/23 16:23	1

Client Sample ID: FS26

Lab Sample ID: 890-3885-7
Matrix: Solid
Date Collected: 01/17/23 12:50
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0399	U	0.0399		mg/Kg		01/25/23 14:13	01/28/23 09:11	20
Toluene	**0.0542**		0.0399		mg/Kg		01/25/23 14:13	01/28/23 09:11	20
Ethylbenzene	**0.538**		0.0399		mg/Kg		01/25/23 14:13	01/28/23 09:11	20
m-Xylene & p-Xylene	**0.543**		0.0798		mg/Kg		01/25/23 14:13	01/28/23 09:11	20
o-Xylene	**0.366**		0.0399		mg/Kg		01/25/23 14:13	01/28/23 09:11	20
Xylenes, Total	**0.909**		0.0798		mg/Kg		01/25/23 14:13	01/28/23 09:11	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*01/25/23 14:13*	*01/28/23 09:11*	*20*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS26

Lab Sample ID: 890-3885-7
Matrix: Solid
Date Collected: 01/17/23 12:50
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/25/23 14:13*	*01/28/23 09:11*	*20*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**1.50**		0.0798		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1620**		49.9		mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**167**		49.9		mg/Kg		01/31/23 14:00	02/02/23 03:44	1
Diesel Range Organics (Over C10-C28)	**1450**		49.9		mg/Kg		01/31/23 14:00	02/02/23 03:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*01/31/23 14:00*	*02/02/23 03:44*	*1*
o-Terphenyl	*117*		*70 - 130*	*01/31/23 14:00*	*02/02/23 03:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**896**		5.00		mg/Kg			01/25/23 16:28	1

Client Sample ID: FS27

Lab Sample ID: 890-3885-8
Matrix: Solid
Date Collected: 01/17/23 12:55
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0402	U	0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:31	20
Toluene	**0.405**		0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:31	20
Ethylbenzene	**1.53**		0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:31	20
m-Xylene & p-Xylene	**2.10**		0.0805		mg/Kg		01/25/23 14:13	01/28/23 09:31	20
o-Xylene	**1.06**		0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:31	20
Xylenes, Total	**3.16**		0.0805		mg/Kg		01/25/23 14:13	01/28/23 09:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*01/25/23 14:13*	*01/28/23 09:31*	*20*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/25/23 14:13*	*01/28/23 09:31*	*20*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**5.10**		0.0805		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**896**		50.0		mg/Kg			02/02/23 12:39	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS27

Lab Sample ID: 890-3885-8
Matrix: Solid
Date Collected: 01/17/23 12:55
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**120**		50.0		mg/Kg		01/31/23 14:00	02/02/23 04:06	1
Diesel Range Organics (Over C10-C28)	**776**		50.0		mg/Kg		01/31/23 14:00	02/02/23 04:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 14:00	02/02/23 04:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*01/31/23 14:00*	*02/02/23 04:06*	*1*
o-Terphenyl	*98*		*70 - 130*	*01/31/23 14:00*	*02/02/23 04:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**113**		4.98		mg/Kg			01/25/23 16:43	1

Client Sample ID: FS28

Lab Sample ID: 890-3885-9
Matrix: Solid
Date Collected: 01/17/23 13:00
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0402	U	0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:52	20
Toluene	<0.0402	U	0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:52	20
Ethylbenzene	**0.245**		0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:52	20
m-Xylene & p-Xylene	**0.244**		0.0803		mg/Kg		01/25/23 14:13	01/28/23 09:52	20
o-Xylene	**0.169**		0.0402		mg/Kg		01/25/23 14:13	01/28/23 09:52	20
Xylenes, Total	**0.413**		0.0803		mg/Kg		01/25/23 14:13	01/28/23 09:52	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/25/23 14:13*	*01/28/23 09:52*	*20*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/25/23 14:13*	*01/28/23 09:52*	*20*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.658**		0.0803		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**285**		49.9		mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 04:27	1
Diesel Range Organics (Over C10-C28)	**285**		49.9		mg/Kg		01/31/23 14:00	02/02/23 04:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/02/23 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*01/31/23 14:00*	*02/02/23 04:27*	*1*
o-Terphenyl	*106*		*70 - 130*	*01/31/23 14:00*	*02/02/23 04:27*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS28

Lab Sample ID: 890-3885-9
Matrix: Solid
Date Collected: 01/17/23 13:00
Date Received: 01/19/23 11:42
Sample Depth: 4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1050		4.95		mg/Kg			01/25/23 16:48	1

Client Sample ID: FS29

Lab Sample ID: 890-3885-10
Matrix: Solid
Date Collected: 01/16/23 15:25
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/26/23 07:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/26/23 07:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/26/23 07:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/25/23 12:57	01/26/23 07:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/26/23 07:00	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/23 12:57	01/26/23 07:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*01/25/23 12:57*	*01/26/23 07:00*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*01/25/23 12:57*	*01/26/23 07:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/26/23 12:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/02/23 12:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 16:00	02/01/23 19:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/30/23 16:00	02/01/23 19:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 16:00	02/01/23 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/30/23 16:00*	*02/01/23 19:06*	*1*
o-Terphenyl	*87*		*70 - 130*	*01/30/23 16:00*	*02/01/23 19:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.89		5.00		mg/Kg			01/25/23 16:52	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
880-24055-A-8-B MS	Matrix Spike	116	100										
880-24055-A-8-C MSD	Matrix Spike Duplicate	111	99										
880-24178-A-51-D MS	Matrix Spike	109	107										
880-24178-A-51-E MSD	Matrix Spike Duplicate	109	105										
890-3885-1	FS20	127	110										
890-3885-2	FS21	103	115										
890-3885-3	FS22	104	117										
890-3885-4	FS23	115	116										
890-3885-5	FS24	87	95										
890-3885-6	FS25	109	107										
890-3885-7	FS26	96	82										
890-3885-8	FS27	96	88										
890-3885-9	FS28	104	111										
890-3885-10	FS29	83	87										
890-3894-A-1-D MS	Matrix Spike	104	99										
890-3894-A-1-E MSD	Matrix Spike Duplicate	99	116										
LCS 880-44726/1-A	Lab Control Sample	105	103										
LCS 880-44733/1-A	Lab Control Sample	96	113										
LCS 880-44925/1-A	Lab Control Sample	101	103										
LCSD 880-44726/2-A	Lab Control Sample Dup	99	110										
LCSD 880-44733/2-A	Lab Control Sample Dup	94	115										
LCSD 880-44925/2-A	Lab Control Sample Dup	93	109										
MB 880-44618/5-A	Method Blank	75	96										
MB 880-44726/5-A	Method Blank	71	91										
MB 880-44733/5-A	Method Blank	98	113										
MB 880-44890/5-A	Method Blank	101	110										
MB 880-44925/5-A	Method Blank	71	94										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
880-23897-A-6-D MS	Matrix Spike	109	98										
880-23897-A-6-E MSD	Matrix Spike Duplicate	105	91										
880-24218-A-1-C MS	Matrix Spike	132 S1+	108										
880-24218-A-1-D MSD	Matrix Spike Duplicate	100	99										
890-3885-1	FS20	94	97										
890-3885-2	FS21	97	103										
890-3885-3	FS22	113	111										
890-3885-4	FS23	113	111										
890-3885-5	FS24	99	106										
890-3885-6	FS25	111	114										
890-3885-7	FS26	114	117										
890-3885-8	FS27	95	98										

Surrogate Summary

Client: Ensolum Job ID: 890-3885-1
Project/Site: MCA 151 SDG: 03D2057056

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-3885-9	FS28	108	106								
890-3885-10	FS29	88	87								
LCS 880-45085/2-A	Lab Control Sample	99	92								
LCS 880-45137/2-A	Lab Control Sample	95	102								
LCSD 880-45085/3-A	Lab Control Sample Dup	115	99								
LCSD 880-45137/3-A	Lab Control Sample Dup	97	104								
MB 880-45085/1-A	Method Blank	112	115								
MB 880-45137/1-A	Method Blank	113	122								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44618/5-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44618

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/23 11:18	01/25/23 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*01/24/23 11:18*	*01/25/23 12:17*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*01/24/23 11:18*	*01/25/23 12:17*	*1*

Lab Sample ID: MB 880-44726/5-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44726

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 12:57	01/25/23 23:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*70 - 130*	*01/25/23 12:57*	*01/25/23 23:29*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/25/23 12:57*	*01/25/23 23:29*	*1*

Lab Sample ID: LCS 880-44726/1-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44726

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1116		mg/Kg		112	70 - 130		
Toluene			0.100	0.1072		mg/Kg		107	70 - 130		
Ethylbenzene			0.100	0.1073		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2213		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1104		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-44726/2-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44726

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1045		mg/Kg		105	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: LCSD 880-44726/2-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44726

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09298		mg/Kg		93	70 - 130	14	35
Ethylbenzene			0.100	0.08807		mg/Kg		88	70 - 130	20	35
m-Xylene & p-Xylene			0.200	0.1817		mg/Kg		91	70 - 130	20	35
o-Xylene			0.100	0.09143		mg/Kg		91	70 - 130	19	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-24055-A-8-B MS
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44726

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1 F2	0.0998	0.09523		mg/Kg		95	70 - 130
Toluene	<0.00201	U F1	0.0998	0.09318		mg/Kg		93	70 - 130
Ethylbenzene	<0.00201	U	0.0998	0.09645		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2040		mg/Kg		102	70 - 130
o-Xylene	<0.00201	U	0.0998	0.1009		mg/Kg		101	70 - 130

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

Lab Sample ID: 880-24055-A-8-C MSD
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44726

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1 F2	0.101	0.06393	F1 F2	mg/Kg		63	70 - 130	39	35
Toluene	<0.00201	U F1	0.101	0.06668	F1	mg/Kg		66	70 - 130	33	35
Ethylbenzene	<0.00201	U	0.101	0.07425		mg/Kg		74	70 - 130	26	35
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1565		mg/Kg		78	70 - 130	26	35
o-Xylene	<0.00201	U	0.101	0.07844		mg/Kg		78	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-44733/5-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 14:13	01/28/23 01:22	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: MB 880-44733/5-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 14:13	01/28/23 01:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/25/23 14:13*	*01/28/23 01:22*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/25/23 14:13*	*01/28/23 01:22*	*1*

Lab Sample ID: LCS 880-44733/1-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09258		mg/Kg		93	70 - 130		
Toluene			0.100	0.08424		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08036		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene			0.200	0.1669		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08198		mg/Kg		82	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: LCSD 880-44733/2-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09657		mg/Kg		97	70 - 130	4	35
Toluene			0.100	0.08844		mg/Kg		88	70 - 130	5	35
Ethylbenzene			0.100	0.08432		mg/Kg		84	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1745		mg/Kg		87	70 - 130	4	35
o-Xylene			0.100	0.08425		mg/Kg		84	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: 890-3894-A-1-D MS
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1 F2	0.100	0.05429	F1	mg/Kg		54	70 - 130		
Toluene	<0.00201	U F1 F2	0.100	0.06019	F1	mg/Kg		60	70 - 130		
Ethylbenzene	<0.00201	U F1 F2	0.100	0.06450	F1	mg/Kg		64	70 - 130		
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.200	0.1364	F1	mg/Kg		68	70 - 130		
o-Xylene	<0.00201	U F1	0.100	0.06787	F1	mg/Kg		68	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: 890-3894-A-1-D MS
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44733

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-3894-A-1-E MSD
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1 F2	0.0990	0.1070	F2	mg/Kg		108	70 - 130	65	35
Toluene	<0.00201	U F1 F2	0.0990	0.09718	F2	mg/Kg		98	70 - 130	47	35
Ethylbenzene	<0.00201	U F1 F2	0.0990	0.09393	F2	mg/Kg		95	70 - 130	37	35
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.198	0.1958	F2	mg/Kg		99	70 - 130	36	35
o-Xylene	<0.00201	U F1	0.0990	0.09365		mg/Kg		95	70 - 130	32	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Lab Sample ID: MB 880-44890/5-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44890

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/23 09:13	01/27/23 13:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/23 09:13	01/27/23 13:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/23 09:13	01/27/23 13:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/27/23 09:13	01/27/23 13:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/23 09:13	01/27/23 13:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/27/23 09:13	01/27/23 13:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/27/23 09:13	01/27/23 13:07	1
1,4-Difluorobenzene (Surr)	110		70 - 130	01/27/23 09:13	01/27/23 13:07	1

Lab Sample ID: MB 880-44925/5-A
Matrix: Solid
Analysis Batch: 44988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44925

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:27	01/30/23 12:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:27	01/30/23 12:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:27	01/30/23 12:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/27/23 12:27	01/30/23 12:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:27	01/30/23 12:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/27/23 12:27	01/30/23 12:53	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: MB 880-44925/5-A
Matrix: Solid
Analysis Batch: 44988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44925

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/27/23 12:27	01/30/23 12:53	1
1,4-Difluorobenzene (Surr)	94		70 - 130	01/27/23 12:27	01/30/23 12:53	1

Lab Sample ID: LCS 880-44925/1-A
Matrix: Solid
Analysis Batch: 44988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44925

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08717		mg/Kg		87	70 - 130		
Toluene			0.100	0.08268		mg/Kg		83	70 - 130		
Ethylbenzene			0.100	0.08368		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1754		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08769		mg/Kg		88	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-44925/2-A
Matrix: Solid
Analysis Batch: 44988

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44925

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.05057	*- *1	mg/Kg		51	70 - 130	53	35
Toluene			0.100	0.04357	*- *1	mg/Kg		44	70 - 130	62	35
Ethylbenzene			0.100	0.04001	*- *1	mg/Kg		40	70 - 130	71	35
m-Xylene & p-Xylene			0.200	0.08355	*- *1	mg/Kg		42	70 - 130	71	35
o-Xylene			0.100	0.04282	*- *1	mg/Kg		43	70 - 130	69	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-24178-A-51-D MS
Matrix: Solid
Analysis Batch: 44988

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44925

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U *- *1	0.0996	0.09929		mg/Kg		100	70 - 130		
Toluene	<0.00200	U *- *1	0.0996	0.08904		mg/Kg		89	70 - 130		
Ethylbenzene	<0.00200	U *- *1	0.0996	0.09013		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene	<0.00401	U *- *1	0.199	0.1845		mg/Kg		93	70 - 130		
o-Xylene	<0.00200	U *- *1	0.0996	0.09241		mg/Kg		93	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: 880-24178-A-51-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44988 — **Prep Batch: 44925**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U *- *1	0.0996	0.08957		mg/Kg		90	70 - 130	10	35
Toluene	<0.00200	U *- *1	0.0996	0.07713		mg/Kg		77	70 - 130	14	35
Ethylbenzene	<0.00200	U *- *1	0.0996	0.07463		mg/Kg		75	70 - 130	19	35
m-Xylene & p-Xylene	<0.00401	U *- *1	0.199	0.1515		mg/Kg		76	70 - 130	20	35
o-Xylene	<0.00200	U *- *1	0.0996	0.07724		mg/Kg		78	70 - 130	18	35

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

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

Lab Sample ID: MB 880-45085/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45168 — **Prep Batch: 45085**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:00	02/01/23 08:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/30/23 16:00	02/01/23 08:29	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:00	02/01/23 08:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*01/30/23 16:00*	*02/01/23 08:29*	*1*
o-Terphenyl	*115*		*70 - 130*	*01/30/23 16:00*	*02/01/23 08:29*	*1*

Lab Sample ID: LCS 880-45085/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45168 — **Prep Batch: 45085**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	889.1		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)			999	836.5		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: LCSD 880-45085/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45168 — **Prep Batch: 45085**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	985.0		mg/Kg		99	70 - 130	10	20

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: LCSD 880-45085/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45168 — **Prep Batch: 45085**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			999	939.6		mg/Kg		94	70 - 130	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Lab Sample ID: 880-23897-A-6-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45168 — **Prep Batch: 45085**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1105		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	137		1000	1072		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 880-23897-A-6-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45168 — **Prep Batch: 45085**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1076		mg/Kg		106	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	137		998	995.0		mg/Kg		86	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: MB 880-45137/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45168 — **Prep Batch: 45137**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/01/23 19:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/01/23 19:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 14:00	02/01/23 19:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*01/31/23 14:00*	*02/01/23 19:48*	*1*
o-Terphenyl	*122*		*70 - 130*	*01/31/23 14:00*	*02/01/23 19:48*	*1*

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QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: LCS 880-45137/2-A
Matrix: Solid
Analysis Batch: 45168

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45137

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	897.4		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			999	924.5		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: LCSD 880-45137/3-A
Matrix: Solid
Analysis Batch: 45168

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45137

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	879.1		mg/Kg		88	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			999	925.2		mg/Kg		93	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: 880-24218-A-1-C MS
Matrix: Solid
Analysis Batch: 45168

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1016		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1028		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*132*	*S1+*	*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: 880-24218-A-1-D MSD
Matrix: Solid
Analysis Batch: 45168

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45137

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	915.8		mg/Kg		88	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	923.5		mg/Kg		91	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Lab Sample ID: 880-24218-A-1-D MSD
Matrix: Solid
Analysis Batch: 45168

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45137

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44666/1-A
Matrix: Solid
Analysis Batch: 44721

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/25/23 14:46	1

Lab Sample ID: LCS 880-44666/2-A
Matrix: Solid
Analysis Batch: 44721

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	264.3		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-44666/3-A
Matrix: Solid
Analysis Batch: 44721

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	265.4		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3885-5 MS
Matrix: Solid
Analysis Batch: 44721

Client Sample ID: FS24
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2170	F1	1250	3641	F1	mg/Kg		118	90 - 110		

Lab Sample ID: 890-3885-5 MSD
Matrix: Solid
Analysis Batch: 44721

Client Sample ID: FS24
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2170	F1	1250	3647	F1	mg/Kg		118	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

GC VOA

Prep Batch: 44618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44618/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-10	FS29	Total/NA	Solid	8021B	44726
MB 880-44618/5-A	Method Blank	Total/NA	Solid	8021B	44618
MB 880-44726/5-A	Method Blank	Total/NA	Solid	8021B	44726
LCS 880-44726/1-A	Lab Control Sample	Total/NA	Solid	8021B	44726
LCSD 880-44726/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44726
880-24055-A-8-B MS	Matrix Spike	Total/NA	Solid	8021B	44726
880-24055-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44726

Prep Batch: 44726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-10	FS29	Total/NA	Solid	5035	
MB 880-44726/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44726/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44726/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24055-A-8-B MS	Matrix Spike	Total/NA	Solid	5035	
880-24055-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 44733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Total/NA	Solid	5035	
890-3885-2	FS21	Total/NA	Solid	5035	
890-3885-3	FS22	Total/NA	Solid	5035	
890-3885-4	FS23	Total/NA	Solid	5035	
890-3885-5	FS24	Total/NA	Solid	5035	
890-3885-6	FS25	Total/NA	Solid	5035	
890-3885-7	FS26	Total/NA	Solid	5035	
890-3885-8	FS27	Total/NA	Solid	5035	
890-3885-9	FS28	Total/NA	Solid	5035	
MB 880-44733/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44733/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44733/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3894-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3894-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 44822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Total/NA	Solid	Total BTEX	
890-3885-2	FS21	Total/NA	Solid	Total BTEX	
890-3885-3	FS22	Total/NA	Solid	Total BTEX	
890-3885-4	FS23	Total/NA	Solid	Total BTEX	
890-3885-5	FS24	Total/NA	Solid	Total BTEX	
890-3885-6	FS25	Total/NA	Solid	Total BTEX	
890-3885-7	FS26	Total/NA	Solid	Total BTEX	
890-3885-8	FS27	Total/NA	Solid	Total BTEX	
890-3885-9	FS28	Total/NA	Solid	Total BTEX	
890-3885-10	FS29	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

GC VOA

Prep Batch: 44890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44890/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Total/NA	Solid	8021B	44733
890-3885-2	FS21	Total/NA	Solid	8021B	44733
890-3885-3	FS22	Total/NA	Solid	8021B	44733
890-3885-4	FS23	Total/NA	Solid	8021B	44733
890-3885-5	FS24	Total/NA	Solid	8021B	44733
890-3885-6	FS25	Total/NA	Solid	8021B	44733
890-3885-7	FS26	Total/NA	Solid	8021B	44733
890-3885-8	FS27	Total/NA	Solid	8021B	44733
890-3885-9	FS28	Total/NA	Solid	8021B	44733
MB 880-44733/5-A	Method Blank	Total/NA	Solid	8021B	44733
MB 880-44890/5-A	Method Blank	Total/NA	Solid	8021B	44890
LCS 880-44733/1-A	Lab Control Sample	Total/NA	Solid	8021B	44733
LCSD 880-44733/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44733
890-3894-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	44733
890-3894-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44733

Prep Batch: 44925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44925/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44925/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44925/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24178-A-51-D MS	Matrix Spike	Total/NA	Solid	5035	
880-24178-A-51-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 44988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44925/5-A	Method Blank	Total/NA	Solid	8021B	44925
LCS 880-44925/1-A	Lab Control Sample	Total/NA	Solid	8021B	44925
LCSD 880-44925/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44925
880-24178-A-51-D MS	Matrix Spike	Total/NA	Solid	8021B	44925
880-24178-A-51-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44925

GC Semi VOA

Prep Batch: 45085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-10	FS29	Total/NA	Solid	8015NM Prep	
MB 880-45085/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45085/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45085/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23897-A-6-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23897-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 45137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Total/NA	Solid	8015NM Prep	
890-3885-2	FS21	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

GC Semi VOA (Continued)

Prep Batch: 45137 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-3	FS22	Total/NA	Solid	8015NM Prep	
890-3885-4	FS23	Total/NA	Solid	8015NM Prep	
890-3885-5	FS24	Total/NA	Solid	8015NM Prep	
890-3885-6	FS25	Total/NA	Solid	8015NM Prep	
890-3885-7	FS26	Total/NA	Solid	8015NM Prep	
890-3885-8	FS27	Total/NA	Solid	8015NM Prep	
890-3885-9	FS28	Total/NA	Solid	8015NM Prep	
MB 880-45137/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45137/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45137/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24218-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24218-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Total/NA	Solid	8015B NM	45137
890-3885-2	FS21	Total/NA	Solid	8015B NM	45137
890-3885-3	FS22	Total/NA	Solid	8015B NM	45137
890-3885-4	FS23	Total/NA	Solid	8015B NM	45137
890-3885-5	FS24	Total/NA	Solid	8015B NM	45137
890-3885-6	FS25	Total/NA	Solid	8015B NM	45137
890-3885-7	FS26	Total/NA	Solid	8015B NM	45137
890-3885-8	FS27	Total/NA	Solid	8015B NM	45137
890-3885-9	FS28	Total/NA	Solid	8015B NM	45137
890-3885-10	FS29	Total/NA	Solid	8015B NM	45085
MB 880-45085/1-A	Method Blank	Total/NA	Solid	8015B NM	45085
MB 880-45137/1-A	Method Blank	Total/NA	Solid	8015B NM	45137
LCS 880-45085/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45085
LCS 880-45137/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45137
LCSD 880-45085/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45085
LCSD 880-45137/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45137
880-23897-A-6-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45085
880-23897-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45085
880-24218-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45137
880-24218-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45137

Analysis Batch: 45256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Total/NA	Solid	8015 NM	
890-3885-2	FS21	Total/NA	Solid	8015 NM	
890-3885-3	FS22	Total/NA	Solid	8015 NM	
890-3885-4	FS23	Total/NA	Solid	8015 NM	
890-3885-5	FS24	Total/NA	Solid	8015 NM	
890-3885-6	FS25	Total/NA	Solid	8015 NM	
890-3885-7	FS26	Total/NA	Solid	8015 NM	
890-3885-8	FS27	Total/NA	Solid	8015 NM	
890-3885-9	FS28	Total/NA	Solid	8015 NM	
890-3885-10	FS29	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

HPLC/IC

Leach Batch: 44666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Soluble	Solid	DI Leach	
890-3885-2	FS21	Soluble	Solid	DI Leach	
890-3885-3	FS22	Soluble	Solid	DI Leach	
890-3885-4	FS23	Soluble	Solid	DI Leach	
890-3885-5	FS24	Soluble	Solid	DI Leach	
890-3885-6	FS25	Soluble	Solid	DI Leach	
890-3885-7	FS26	Soluble	Solid	DI Leach	
890-3885-8	FS27	Soluble	Solid	DI Leach	
890-3885-9	FS28	Soluble	Solid	DI Leach	
890-3885-10	FS29	Soluble	Solid	DI Leach	
MB 880-44666/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44666/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44666/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3885-5 MS	FS24	Soluble	Solid	DI Leach	
890-3885-5 MSD	FS24	Soluble	Solid	DI Leach	

Analysis Batch: 44721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3885-1	FS20	Soluble	Solid	300.0	44666
890-3885-2	FS21	Soluble	Solid	300.0	44666
890-3885-3	FS22	Soluble	Solid	300.0	44666
890-3885-4	FS23	Soluble	Solid	300.0	44666
890-3885-5	FS24	Soluble	Solid	300.0	44666
890-3885-6	FS25	Soluble	Solid	300.0	44666
890-3885-7	FS26	Soluble	Solid	300.0	44666
890-3885-8	FS27	Soluble	Solid	300.0	44666
890-3885-9	FS28	Soluble	Solid	300.0	44666
890-3885-10	FS29	Soluble	Solid	300.0	44666
MB 880-44666/1-A	Method Blank	Soluble	Solid	300.0	44666
LCS 880-44666/2-A	Lab Control Sample	Soluble	Solid	300.0	44666
LCSD 880-44666/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44666
890-3885-5 MS	FS24	Soluble	Solid	300.0	44666
890-3885-5 MSD	FS24	Soluble	Solid	300.0	44666

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS20

Date Collected: 01/17/23 10:45
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 07:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 01:36	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 15:49	CH	EET MID

Client Sample ID: FS21

Date Collected: 01/17/23 11:05
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 07:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 01:58	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 15:54	CH	EET MID

Client Sample ID: FS22

Date Collected: 01/17/23 11:10
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 07:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 02:19	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 15:59	CH	EET MID

Client Sample ID: FS23

Date Collected: 01/17/23 12:05
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	44898	01/28/23 08:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS23

Lab Sample ID: 890-3885-4
Matrix: Solid
Date Collected: 01/17/23 12:05
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 02:40	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		5			44721	01/25/23 16:04	CH	EET MID

Client Sample ID: FS24

Lab Sample ID: 890-3885-5
Matrix: Solid
Date Collected: 01/17/23 12:10
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	44898	01/28/23 08:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 03:02	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		5			44721	01/25/23 16:09	CH	EET MID

Client Sample ID: FS25

Lab Sample ID: 890-3885-6
Matrix: Solid
Date Collected: 01/17/23 12:15
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	44898	01/28/23 08:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 03:23	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 16:23	CH	EET MID

Client Sample ID: FS26

Lab Sample ID: 890-3885-7
Matrix: Solid
Date Collected: 01/17/23 12:50
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	44898	01/28/23 09:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 03:44	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Client Sample ID: FS26

Date Collected: 01/17/23 12:50
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 16:28	CH	EET MID

Client Sample ID: FS27

Date Collected: 01/17/23 12:55
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	44898	01/28/23 09:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 04:06	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 16:43	CH	EET MID

Client Sample ID: FS28

Date Collected: 01/17/23 13:00
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	44733	01/25/23 14:13	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	44898	01/28/23 09:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45137	01/31/23 14:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/02/23 04:27	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 16:48	CH	EET MID

Client Sample ID: FS29

Date Collected: 01/16/23 15:25
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3885-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44726	01/25/23 12:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44694	01/26/23 07:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44822	01/26/23 12:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			45256	02/02/23 12:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45085	01/30/23 16:00	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45168	02/01/23 19:06	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44666	01/24/23 15:26	KS	EET MID
Soluble	Analysis	300.0		1			44721	01/25/23 16:52	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3885-1
SDG: 03D2057056

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3885-1	FS20	Solid	01/17/23 10:45	01/19/23 11:42	4'
890-3885-2	FS21	Solid	01/17/23 11:05	01/19/23 11:42	4'
890-3885-3	FS22	Solid	01/17/23 11:10	01/19/23 11:42	4'
890-3885-4	FS23	Solid	01/17/23 12:05	01/19/23 11:42	4'
890-3885-5	FS24	Solid	01/17/23 12:10	01/19/23 11:42	4'
890-3885-6	FS25	Solid	01/17/23 12:15	01/19/23 11:42	4'
890-3885-7	FS26	Solid	01/17/23 12:50	01/19/23 11:42	4'
890-3885-8	FS27	Solid	01/17/23 12:55	01/19/23 11:42	4'
890-3885-9	FS28	Solid	01/17/23 13:00	01/19/23 11:42	4'
890-3885-10	FS29	Solid	01/16/23 15:25	01/19/23 11:42	4'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com; jadams@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 151	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057056	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	Thermo7
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021	Sample Comments
FS20	S	1/17/2023	10:45	4'	Comp	1		x	x	x	
FS21	S	1/17/2023	11:05	4'	Comp	1		x	x	x	
FS22	S	1/17/2023	11:10	4'	Comp	1		x	x	x	Incident Number
FS23	S	1/17/2023	12:05	4'	Comp	1		x	x	x	
FS24	S	1/17/2023	12:10	4'	Comp	1		x	x	x	
FS25	S	1/17/2023	12:15	4'	Comp	1		x	x	x	
FS26	S	1/17/2023	12:50	4'	Comp	1		x	x	x	
~~FS27~~	~~S~~	~~1/17/2023~~	~~12:55~~	~~4'~~	~~Comp~~	~~1~~		~~x~~	~~x~~	~~x~~	
FS28	S	1/17/2023	13:00	4'	Comp	1		x	x	x	
FS29	S	1/16/2023	15:25	4'	Comp	1		x	x	x	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1-19-23 1142	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3885-1
SDG Number: 03D2057056

Login Number: 3885
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3885-1
SDG Number: 03D2057056

Login Number: 3885
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/20/23 10:42 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/1/2023 4:18:22 PM

JOB DESCRIPTION

MCA 151
SDG NUMBER 03D2057056

JOB NUMBER

890-3888-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

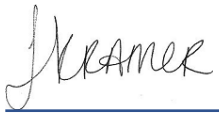
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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2/1/2023 4:18:22 PM

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

Client: Ensolum
Project/Site: MCA 151

Laboratory Job ID: 890-3888-1
SDG: 03D2057056

Table of Contents

Eurofins Carlsbad
2/1/2023

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Qualifiers

GC VOA

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Job ID: 890-3888-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3888-1

Receipt
The samples were received on 1/19/2023 11:42 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS10 (890-3888-1), FS11 (890-3888-2), FS12 (890-3888-3), FS13 (890-3888-4), FS14 (890-3888-5), FS15 (890-3888-6), FS16 (890-3888-7), FS17 (890-3888-8), FS18 (890-3888-9) and FS19 (890-3888-10).

GC VOA
Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-44726 and analytical batch 880-44694 were outside control limits. Non-homogeneity is 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.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-45125 and analytical batch 880-45101 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45087 and analytical batch 880-45170 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44665 and analytical batch 880-44720 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS10

Lab Sample ID: 890-3888-1
Matrix: Solid
Date Collected: 01/17/23 09:20
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/26/23 13:15	01/28/23 13:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/26/23 13:15	01/28/23 13:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/26/23 13:15	01/28/23 13:30	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/26/23 13:15	01/28/23 13:30	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/26/23 13:15	01/28/23 13:30	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/26/23 13:15	01/28/23 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/26/23 13:15*	*01/28/23 13:30*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*01/26/23 13:15*	*01/28/23 13:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 00:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 00:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*01/31/23 13:01*	*02/01/23 00:00*	*1*
o-Terphenyl	*113*		*70 - 130*	*01/31/23 13:01*	*02/01/23 00:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**64.1**	**F1**	5.02		mg/Kg			01/25/23 15:03	1

Client Sample ID: FS11

Lab Sample ID: 890-3888-2
Matrix: Solid
Date Collected: 01/17/23 09:25
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0996	U	0.0996		mg/Kg		01/26/23 13:15	01/28/23 16:36	50
Toluene	<0.0996	U	0.0996		mg/Kg		01/26/23 13:15	01/28/23 16:36	50
Ethylbenzene	<0.0996	U	0.0996		mg/Kg		01/26/23 13:15	01/28/23 16:36	50
m-Xylene & p-Xylene	<0.199	U	0.199		mg/Kg		01/26/23 13:15	01/28/23 16:36	50
o-Xylene	<0.0996	U	0.0996		mg/Kg		01/26/23 13:15	01/28/23 16:36	50
Xylenes, Total	<0.199	U	0.199		mg/Kg		01/26/23 13:15	01/28/23 16:36	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*01/26/23 13:15*	*01/28/23 16:36*	*50*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS11

Lab Sample ID: 890-3888-2
Matrix: Solid
Date Collected: 01/17/23 09:25
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*01/26/23 13:15*	*01/28/23 16:36*	*50*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.199	U	0.199	mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 13:01	02/01/23 00:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/23 13:01	02/01/23 00:22	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 13:01	02/01/23 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*01/31/23 13:01*	*02/01/23 00:22*	*1*
o-Terphenyl	*107*		*70 - 130*	*01/31/23 13:01*	*02/01/23 00:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94.1**		4.97	mg/Kg			01/25/23 15:21	1

Client Sample ID: FS12

Lab Sample ID: 890-3888-3
Matrix: Solid
Date Collected: 01/17/23 09:30
Date Received: 01/19/23 11:42
Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/26/23 13:15	01/28/23 13:51	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/26/23 13:15	01/28/23 13:51	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/26/23 13:15	01/28/23 13:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/26/23 13:15	01/28/23 13:51	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/26/23 13:15	01/28/23 13:51	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/26/23 13:15	01/28/23 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/26/23 13:15*	*01/28/23 13:51*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*01/26/23 13:15*	*01/28/23 13:51*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/01/23 09:57	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS12

Lab Sample ID: 890-3888-3
Matrix: Solid
Date Collected: 01/17/23 09:30
Date Received: 01/19/23 11:42
Sample Depth: 2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 00:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 00:44	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*01/31/23 13:01*	*02/01/23 00:44*	*1*
o-Terphenyl	*110*		*70 - 130*	*01/31/23 13:01*	*02/01/23 00:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.1**		4.99		mg/Kg			01/25/23 15:27	1

Client Sample ID: FS13

Lab Sample ID: 890-3888-4
Matrix: Solid
Date Collected: 01/17/23 09:35
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 14:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 14:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 14:11	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/26/23 13:15	01/28/23 14:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 14:11	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/26/23 13:15	01/28/23 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*01/26/23 13:15*	*01/28/23 14:11*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*01/26/23 13:15*	*01/28/23 14:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 01:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 01:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*01/31/23 13:01*	*02/01/23 01:06*	*1*
o-Terphenyl	*116*		*70 - 130*	*01/31/23 13:01*	*02/01/23 01:06*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS13

Lab Sample ID: 890-3888-4
Matrix: Solid
Date Collected: 01/17/23 09:35
Date Received: 01/19/23 11:42
Sample Depth: 4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	66.4		5.05		mg/Kg			01/25/23 15:34	1

Client Sample ID: FS14

Lab Sample ID: 890-3888-5
Matrix: Solid
Date Collected: 01/17/23 12:00
Date Received: 01/19/23 11:42
Sample Depth: 5.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/26/23 13:15	01/28/23 14:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/26/23 13:15	01/28/23 14:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/26/23 13:15	01/28/23 14:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/26/23 13:15	01/28/23 14:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/26/23 13:15	01/28/23 14:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/26/23 13:15	01/28/23 14:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*01/26/23 13:15*	*01/28/23 14:32*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/26/23 13:15*	*01/28/23 14:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 01:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 01:51	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 01:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*01/31/23 13:01*	*02/01/23 01:51*	*1*
o-Terphenyl	*114*		*70 - 130*	*01/31/23 13:01*	*02/01/23 01:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.9		5.04		mg/Kg			01/25/23 15:40	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS15

Lab Sample ID: 890-3888-6
Matrix: Solid
Date Collected: 01/17/23 09:50
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/26/23 13:15	01/28/23 18:26	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/26/23 13:15	01/28/23 18:26	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/26/23 13:15	01/28/23 18:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/26/23 13:15	01/28/23 18:26	1
o-Xylene	**0.00275**		0.00201		mg/Kg		01/26/23 13:15	01/28/23 18:26	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/26/23 13:15	01/28/23 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*01/26/23 13:15*	*01/28/23 18:26*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/26/23 13:15*	*01/28/23 18:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 02:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 02:13	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*01/31/23 13:01*	*02/01/23 02:13*	*1*
o-Terphenyl	*104*		*70 - 130*	*01/31/23 13:01*	*02/01/23 02:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.0**		5.00		mg/Kg			01/25/23 15:58	1

Client Sample ID: FS16

Lab Sample ID: 890-3888-7
Matrix: Solid
Date Collected: 01/17/23 10:30
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 18:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 18:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 18:47	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/26/23 13:15	01/28/23 18:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 18:47	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/26/23 13:15	01/28/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/26/23 13:15*	*01/28/23 18:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS16

Lab Sample ID: 890-3888-7
Matrix: Solid
Date Collected: 01/17/23 10:30
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*01/26/23 13:15*	*01/28/23 18:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/23 13:01	02/01/23 02:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/23 13:01	02/01/23 02:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/23 13:01	02/01/23 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*01/31/23 13:01*	*02/01/23 02:35*	*1*
o-Terphenyl	*101*		*70 - 130*	*01/31/23 13:01*	*02/01/23 02:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84.2**		5.00	mg/Kg			01/25/23 16:04	1

Client Sample ID: FS17

Lab Sample ID: 890-3888-8
Matrix: Solid
Date Collected: 01/17/23 10:35
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/26/23 13:15	01/28/23 19:08	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/26/23 13:15	01/28/23 19:08	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/26/23 13:15	01/28/23 19:08	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		01/26/23 13:15	01/28/23 19:08	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/26/23 13:15	01/28/23 19:08	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		01/26/23 13:15	01/28/23 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/26/23 13:15*	*01/28/23 19:08*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*01/26/23 13:15*	*01/28/23 19:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/01/23 09:57	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS17

Lab Sample ID: 890-3888-8
Matrix: Solid
Date Collected: 01/17/23 10:35
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 02:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 02:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*01/31/23 13:01*	*02/01/23 02:57*	*1*
o-Terphenyl	*115*		*70 - 130*	*01/31/23 13:01*	*02/01/23 02:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.4**		5.03		mg/Kg			01/25/23 16:11	1

Client Sample ID: FS18

Lab Sample ID: 890-3888-9
Matrix: Solid
Date Collected: 01/17/23 10:40
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/26/23 13:15	01/28/23 19:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/26/23 13:15	01/28/23 19:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/26/23 13:15	01/28/23 19:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/26/23 13:15	01/28/23 19:28	1
o-Xylene	**0.00419**		0.00199		mg/Kg		01/26/23 13:15	01/28/23 19:28	1
Xylenes, Total	**0.00419**		0.00398		mg/Kg		01/26/23 13:15	01/28/23 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/26/23 13:15*	*01/28/23 19:28*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*01/26/23 13:15*	*01/28/23 19:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00419**		0.00398		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 03:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 03:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*01/31/23 13:01*	*02/01/23 03:19*	*1*
o-Terphenyl	*106*		*70 - 130*	*01/31/23 13:01*	*02/01/23 03:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS18

Lab Sample ID: 890-3888-9
Matrix: Solid
Date Collected: 01/17/23 10:40
Date Received: 01/19/23 11:42
Sample Depth: 4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92.0**		5.02		mg/Kg			01/25/23 16:17	1

Client Sample ID: FS19

Lab Sample ID: 890-3888-10
Matrix: Solid
Date Collected: 01/16/23 13:35
Date Received: 01/19/23 11:42
Sample Depth: 2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/25/23 12:57	01/26/23 07:20	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/23 12:57	01/26/23 07:20	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/25/23 12:57	01/26/23 07:20	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/25/23 12:57	01/26/23 07:20	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/25/23 12:57	01/26/23 07:20	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/25/23 12:57	01/26/23 07:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*01/25/23 12:57*	*01/26/23 07:20*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/25/23 12:57*	*01/26/23 07:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/26/23 12:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**98.5**		50.0		mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	50.0		mg/Kg		01/30/23 16:04	02/01/23 11:05	1
Diesel Range Organics (Over C10-C28)	**98.5**	**F2**	50.0		mg/Kg		01/30/23 16:04	02/01/23 11:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 11:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/30/23 16:04*	*02/01/23 11:05*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/30/23 16:04*	*02/01/23 11:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55.3**		4.98		mg/Kg			01/25/23 16:23	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-24055-A-8-B MS	Matrix Spike	116	100
880-24055-A-8-C MSD	Matrix Spike Duplicate	111	99
890-3888-1	FS10	100	115
890-3888-1 MS	FS10	94	112
890-3888-1 MSD	FS10	101	116
890-3888-2	FS11	92	105
890-3888-3	FS12	104	115
890-3888-4	FS13	99	114
890-3888-5	FS14	102	112
890-3888-6	FS15	93	112
890-3888-7	FS16	106	117
890-3888-8	FS17	110	108
890-3888-9	FS18	105	114
890-3888-10	FS19	70	92
LCS 880-44726/1-A	Lab Control Sample	105	103
LCS 880-44825/1-A	Lab Control Sample	92	114
LCSD 880-44726/2-A	Lab Control Sample Dup	99	110
LCSD 880-44825/2-A	Lab Control Sample Dup	96	112
MB 880-44618/5-A	Method Blank	75	96
MB 880-44726/5-A	Method Blank	71	91
MB 880-44733/5-A	Method Blank	98	113
MB 880-44825/5-A	Method Blank	101	112

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23972-A-14-D MS	Matrix Spike	118	103
880-23972-A-14-E MSD	Matrix Spike Duplicate	117	103
890-3888-1	FS10	112	113
890-3888-2	FS11	104	107
890-3888-3	FS12	109	110
890-3888-4	FS13	112	116
890-3888-5	FS14	111	114
890-3888-6	FS15	100	104
890-3888-7	FS16	100	101
890-3888-8	FS17	114	115
890-3888-9	FS18	104	106
890-3888-10	FS19	84	86
890-3888-10 MS	FS19	96	90
890-3888-10 MSD	FS19	76	72
LCS 880-45087/2-A	Lab Control Sample	72	75
LCS 880-45125/2-A	Lab Control Sample	112	102
LCSD 880-45087/3-A	Lab Control Sample Dup	70	73

Surrogate Summary

Client: Ensolum Job ID: 890-3888-1
Project/Site: MCA 151 SDG: 03D2057056

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCSD 880-45125/3-A	Lab Control Sample Dup	89	94								
MB 880-45087/1-A	Method Blank	122	128								
MB 880-45125/1-A	Method Blank	141 S1+	136 S1+								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44618/5-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44618

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:18	01/25/23 12:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/23 11:18	01/25/23 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*01/24/23 11:18*	*01/25/23 12:17*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*01/24/23 11:18*	*01/25/23 12:17*	*1*

Lab Sample ID: MB 880-44726/5-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44726

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 12:57	01/25/23 23:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 12:57	01/25/23 23:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*70 - 130*	*01/25/23 12:57*	*01/25/23 23:29*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/25/23 12:57*	*01/25/23 23:29*	*1*

Lab Sample ID: LCS 880-44726/1-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44726

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1116		mg/Kg		112	70 - 130		
Toluene			0.100	0.1072		mg/Kg		107	70 - 130		
Ethylbenzene			0.100	0.1073		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2213		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1104		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-44726/2-A
Matrix: Solid
Analysis Batch: 44694

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44726

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1045		mg/Kg		105	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

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

Lab Sample ID: LCSD 880-44726/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44694 — **Prep Batch: 44726**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09298		mg/Kg		93	70 - 130	14	35
Ethylbenzene			0.100	0.08807		mg/Kg		88	70 - 130	20	35
m-Xylene & p-Xylene			0.200	0.1817		mg/Kg		91	70 - 130	20	35
o-Xylene			0.100	0.09143		mg/Kg		91	70 - 130	19	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-24055-A-8-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44694 — **Prep Batch: 44726**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1 F2	0.0998	0.09523		mg/Kg		95	70 - 130
Toluene	<0.00201	U F1	0.0998	0.09318		mg/Kg		93	70 - 130
Ethylbenzene	<0.00201	U	0.0998	0.09645		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2040		mg/Kg		102	70 - 130
o-Xylene	<0.00201	U	0.0998	0.1009		mg/Kg		101	70 - 130

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

Lab Sample ID: 880-24055-A-8-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44694 — **Prep Batch: 44726**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1 F2	0.101	0.06393	F1 F2	mg/Kg		63	70 - 130	39	35
Toluene	<0.00201	U F1	0.101	0.06668	F1	mg/Kg		66	70 - 130	33	35
Ethylbenzene	<0.00201	U	0.101	0.07425		mg/Kg		74	70 - 130	26	35
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1565		mg/Kg		78	70 - 130	26	35
o-Xylene	<0.00201	U	0.101	0.07844		mg/Kg		78	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-44733/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44898 — **Prep Batch: 44733**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 14:13	01/28/23 01:22	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

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

Lab Sample ID: MB 880-44733/5-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 14:13	01/28/23 01:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/25/23 14:13*	*01/28/23 01:22*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/25/23 14:13*	*01/28/23 01:22*	*1*

Lab Sample ID: MB 880-44825/5-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44825

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/26/23 13:15	01/28/23 13:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/26/23 13:15*	*01/28/23 13:02*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/26/23 13:15*	*01/28/23 13:02*	*1*

Lab Sample ID: LCS 880-44825/1-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44825

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09823		mg/Kg		98	70 - 130		
Toluene			0.100	0.08942		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.08453		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1730		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08428		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 880-44825/2-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44825

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1003		mg/Kg		100	70 - 130	2	35
Toluene			0.100	0.09169		mg/Kg		92	70 - 130	3	35
Ethylbenzene			0.100	0.08666		mg/Kg		87	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1783		mg/Kg		89	70 - 130	3	35
o-Xylene			0.100	0.08701		mg/Kg		87	70 - 130	3	35

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-3888-1 MS — **Client Sample ID: FS10**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44898 — **Prep Batch: 44825**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0996	0.08640		mg/Kg		87	70 - 130
Toluene	<0.00202	U	0.0996	0.07736		mg/Kg		77	70 - 130
Ethylbenzene	<0.00202	U	0.0996	0.07233		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1478		mg/Kg		74	70 - 130
o-Xylene	<0.00202	U	0.0996	0.07144		mg/Kg		71	70 - 130

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

Lab Sample ID: 890-3888-1 MSD — **Client Sample ID: FS10**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44898 — **Prep Batch: 44825**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.101	0.1024		mg/Kg		102	70 - 130	17	35
Toluene	<0.00202	U	0.101	0.09279		mg/Kg		92	70 - 130	18	35
Ethylbenzene	<0.00202	U	0.101	0.08665		mg/Kg		86	70 - 130	18	35
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1788		mg/Kg		89	70 - 130	19	35
o-Xylene	<0.00202	U	0.101	0.08615		mg/Kg		85	70 - 130	19	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

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

Lab Sample ID: MB 880-45087/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45170 — **Prep Batch: 45087**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 08:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 08:29	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 08:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130	01/30/23 16:04	02/01/23 08:29	1
o-Terphenyl	128		70 - 130	01/30/23 16:04	02/01/23 08:29	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

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

Lab Sample ID: LCS 880-45087/2-A
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45087

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	852.2		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			999	826.8		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*72*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Lab Sample ID: LCSD 880-45087/3-A
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45087

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	840.8		mg/Kg		84	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			999	792.3		mg/Kg		79	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*70*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: 890-3888-10 MS
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: FS19
Prep Type: Total/NA
Prep Batch: 45087

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	1000	918.3		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	98.5	F2	1000	1087		mg/Kg		99	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: 890-3888-10 MSD
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: FS19
Prep Type: Total/NA
Prep Batch: 45087

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	998	1166	F2	mg/Kg		115	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	98.5	F2	998	866.4	F2	mg/Kg		77	70 - 130	23	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

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

Lab Sample ID: 890-3888-10 MSD
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: FS19
Prep Type: Total/NA
Prep Batch: 45087

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	72		70 - 130

Lab Sample ID: MB 880-45125/1-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45125

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130	01/31/23 13:01	01/31/23 19:55	1
o-Terphenyl	136	S1+	70 - 130	01/31/23 13:01	01/31/23 19:55	1

Lab Sample ID: LCS 880-45125/2-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45125

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	815.8		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			999	832.9		mg/Kg		83	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-45125/3-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45125

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	847.0		mg/Kg		85	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			999	783.6		mg/Kg		78	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	94		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

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

Lab Sample ID: 880-23972-A-14-D MS
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45125

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1163		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1162		mg/Kg		116	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: 880-23972-A-14-E MSD
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45125

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1110		mg/Kg		107	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1158		mg/Kg		116	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44665/1-A
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/25/23 14:44	1

Lab Sample ID: LCS 880-44665/2-A
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	268.0		mg/Kg		107	90 - 110

Lab Sample ID: LCSD 880-44665/3-A
Matrix: Solid
Analysis Batch: 44720

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	262.0		mg/Kg		105	90 - 110	2	20

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3888-1 MS
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: FS10
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	64.1	F1	251	282.1	F1	mg/Kg		87	90 - 110

Lab Sample ID: 890-3888-1 MSD
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: FS10
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	64.1	F1	251	280.0	F1	mg/Kg		86	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

GC VOA

Prep Batch: 44618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44618/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-10	FS19	Total/NA	Solid	8021B	44726
MB 880-44618/5-A	Method Blank	Total/NA	Solid	8021B	44618
MB 880-44726/5-A	Method Blank	Total/NA	Solid	8021B	44726
LCS 880-44726/1-A	Lab Control Sample	Total/NA	Solid	8021B	44726
LCSD 880-44726/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44726
880-24055-A-8-B MS	Matrix Spike	Total/NA	Solid	8021B	44726
880-24055-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44726

Prep Batch: 44726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-10	FS19	Total/NA	Solid	5035	
MB 880-44726/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44726/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44726/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24055-A-8-B MS	Matrix Spike	Total/NA	Solid	5035	
880-24055-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 44733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44733/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Total/NA	Solid	Total BTEX	
890-3888-2	FS11	Total/NA	Solid	Total BTEX	
890-3888-3	FS12	Total/NA	Solid	Total BTEX	
890-3888-4	FS13	Total/NA	Solid	Total BTEX	
890-3888-5	FS14	Total/NA	Solid	Total BTEX	
890-3888-6	FS15	Total/NA	Solid	Total BTEX	
890-3888-7	FS16	Total/NA	Solid	Total BTEX	
890-3888-8	FS17	Total/NA	Solid	Total BTEX	
890-3888-9	FS18	Total/NA	Solid	Total BTEX	
890-3888-10	FS19	Total/NA	Solid	Total BTEX	

Prep Batch: 44825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Total/NA	Solid	5035	
890-3888-2	FS11	Total/NA	Solid	5035	
890-3888-3	FS12	Total/NA	Solid	5035	
890-3888-4	FS13	Total/NA	Solid	5035	
890-3888-5	FS14	Total/NA	Solid	5035	
890-3888-6	FS15	Total/NA	Solid	5035	
890-3888-7	FS16	Total/NA	Solid	5035	
890-3888-8	FS17	Total/NA	Solid	5035	
890-3888-9	FS18	Total/NA	Solid	5035	
MB 880-44825/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44825/1-A	Lab Control Sample	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

GC VOA (Continued)

Prep Batch: 44825 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-44825/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3888-1 MS	FS10	Total/NA	Solid	5035	
890-3888-1 MSD	FS10	Total/NA	Solid	5035	

Analysis Batch: 44898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Total/NA	Solid	8021B	44825
890-3888-2	FS11	Total/NA	Solid	8021B	44825
890-3888-3	FS12	Total/NA	Solid	8021B	44825
890-3888-4	FS13	Total/NA	Solid	8021B	44825
890-3888-5	FS14	Total/NA	Solid	8021B	44825
890-3888-6	FS15	Total/NA	Solid	8021B	44825
890-3888-7	FS16	Total/NA	Solid	8021B	44825
890-3888-8	FS17	Total/NA	Solid	8021B	44825
890-3888-9	FS18	Total/NA	Solid	8021B	44825
MB 880-44733/5-A	Method Blank	Total/NA	Solid	8021B	44733
MB 880-44825/5-A	Method Blank	Total/NA	Solid	8021B	44825
LCS 880-44825/1-A	Lab Control Sample	Total/NA	Solid	8021B	44825
LCSD 880-44825/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44825
890-3888-1 MS	FS10	Total/NA	Solid	8021B	44825
890-3888-1 MSD	FS10	Total/NA	Solid	8021B	44825

GC Semi VOA

Prep Batch: 45087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-10	FS19	Total/NA	Solid	8015NM Prep	
MB 880-45087/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45087/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45087/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3888-10 MS	FS19	Total/NA	Solid	8015NM Prep	
890-3888-10 MSD	FS19	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Total/NA	Solid	8015B NM	45125
890-3888-2	FS11	Total/NA	Solid	8015B NM	45125
890-3888-3	FS12	Total/NA	Solid	8015B NM	45125
890-3888-4	FS13	Total/NA	Solid	8015B NM	45125
890-3888-5	FS14	Total/NA	Solid	8015B NM	45125
890-3888-6	FS15	Total/NA	Solid	8015B NM	45125
890-3888-7	FS16	Total/NA	Solid	8015B NM	45125
890-3888-8	FS17	Total/NA	Solid	8015B NM	45125
890-3888-9	FS18	Total/NA	Solid	8015B NM	45125
MB 880-45125/1-A	Method Blank	Total/NA	Solid	8015B NM	45125
LCS 880-45125/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45125
LCSD 880-45125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45125
880-23972-A-14-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45125
880-23972-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45125

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

GC Semi VOA

Prep Batch: 45125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Total/NA	Solid	8015NM Prep	
890-3888-2	FS11	Total/NA	Solid	8015NM Prep	
890-3888-3	FS12	Total/NA	Solid	8015NM Prep	
890-3888-4	FS13	Total/NA	Solid	8015NM Prep	
890-3888-5	FS14	Total/NA	Solid	8015NM Prep	
890-3888-6	FS15	Total/NA	Solid	8015NM Prep	
890-3888-7	FS16	Total/NA	Solid	8015NM Prep	
890-3888-8	FS17	Total/NA	Solid	8015NM Prep	
890-3888-9	FS18	Total/NA	Solid	8015NM Prep	
MB 880-45125/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45125/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23972-A-14-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23972-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-10	FS19	Total/NA	Solid	8015B NM	45087
MB 880-45087/1-A	Method Blank	Total/NA	Solid	8015B NM	45087
LCS 880-45087/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45087
LCSD 880-45087/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45087
890-3888-10 MS	FS19	Total/NA	Solid	8015B NM	45087
890-3888-10 MSD	FS19	Total/NA	Solid	8015B NM	45087

Analysis Batch: 45174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Total/NA	Solid	8015 NM	
890-3888-2	FS11	Total/NA	Solid	8015 NM	
890-3888-3	FS12	Total/NA	Solid	8015 NM	
890-3888-4	FS13	Total/NA	Solid	8015 NM	
890-3888-5	FS14	Total/NA	Solid	8015 NM	
890-3888-6	FS15	Total/NA	Solid	8015 NM	
890-3888-7	FS16	Total/NA	Solid	8015 NM	
890-3888-8	FS17	Total/NA	Solid	8015 NM	
890-3888-9	FS18	Total/NA	Solid	8015 NM	
890-3888-10	FS19	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Soluble	Solid	DI Leach	
890-3888-2	FS11	Soluble	Solid	DI Leach	
890-3888-3	FS12	Soluble	Solid	DI Leach	
890-3888-4	FS13	Soluble	Solid	DI Leach	
890-3888-5	FS14	Soluble	Solid	DI Leach	
890-3888-6	FS15	Soluble	Solid	DI Leach	
890-3888-7	FS16	Soluble	Solid	DI Leach	
890-3888-8	FS17	Soluble	Solid	DI Leach	
890-3888-9	FS18	Soluble	Solid	DI Leach	
890-3888-10	FS19	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

HPLC/IC (Continued)

Leach Batch: 44665 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44665/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44665/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44665/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3888-1 MS	FS10	Soluble	Solid	DI Leach	
890-3888-1 MSD	FS10	Soluble	Solid	DI Leach	

Analysis Batch: 44720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3888-1	FS10	Soluble	Solid	300.0	44665
890-3888-2	FS11	Soluble	Solid	300.0	44665
890-3888-3	FS12	Soluble	Solid	300.0	44665
890-3888-4	FS13	Soluble	Solid	300.0	44665
890-3888-5	FS14	Soluble	Solid	300.0	44665
890-3888-6	FS15	Soluble	Solid	300.0	44665
890-3888-7	FS16	Soluble	Solid	300.0	44665
890-3888-8	FS17	Soluble	Solid	300.0	44665
890-3888-9	FS18	Soluble	Solid	300.0	44665
890-3888-10	FS19	Soluble	Solid	300.0	44665
MB 880-44665/1-A	Method Blank	Soluble	Solid	300.0	44665
LCS 880-44665/2-A	Lab Control Sample	Soluble	Solid	300.0	44665
LCSD 880-44665/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44665
890-3888-1 MS	FS10	Soluble	Solid	300.0	44665
890-3888-1 MSD	FS10	Soluble	Solid	300.0	44665

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS10

Date Collected: 01/17/23 09:20
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3888-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 13:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 00:00	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 15:03	CH	EET MID

Client Sample ID: FS11

Date Collected: 01/17/23 09:25
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3888-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	44898	01/28/23 16:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 00:22	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 15:21	CH	EET MID

Client Sample ID: FS12

Date Collected: 01/17/23 09:30
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3888-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 13:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 00:44	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 15:27	CH	EET MID

Client Sample ID: FS13

Date Collected: 01/17/23 09:35
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3888-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 14:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS13

Lab Sample ID: 890-3888-4
Matrix: Solid
Date Collected: 01/17/23 09:35
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 01:06	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 15:34	CH	EET MID

Client Sample ID: FS14

Lab Sample ID: 890-3888-5
Matrix: Solid
Date Collected: 01/17/23 12:00
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 14:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 01:51	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 15:40	CH	EET MID

Client Sample ID: FS15

Lab Sample ID: 890-3888-6
Matrix: Solid
Date Collected: 01/17/23 09:50
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 18:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 02:13	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 15:58	CH	EET MID

Client Sample ID: FS16

Lab Sample ID: 890-3888-7
Matrix: Solid
Date Collected: 01/17/23 10:30
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 18:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 02:35	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Client Sample ID: FS16

Lab Sample ID: 890-3888-7
Matrix: Solid
Date Collected: 01/17/23 10:30
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 16:04	CH	EET MID

Client Sample ID: FS17

Lab Sample ID: 890-3888-8
Matrix: Solid
Date Collected: 01/17/23 10:35
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 19:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 02:57	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 16:11	CH	EET MID

Client Sample ID: FS18

Lab Sample ID: 890-3888-9
Matrix: Solid
Date Collected: 01/17/23 10:40
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 19:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/30/23 10:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 03:19	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 16:17	CH	EET MID

Client Sample ID: FS19

Lab Sample ID: 890-3888-10
Matrix: Solid
Date Collected: 01/16/23 13:35
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44726	01/25/23 12:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44694	01/26/23 07:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44823	01/26/23 12:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			45174	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 11:05	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 16:23	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3888-1
SDG: 03D2057056

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3888-1	FS10	Solid	01/17/23 09:20	01/19/23 11:42	4'
890-3888-2	FS11	Solid	01/17/23 09:25	01/19/23 11:42	4'
890-3888-3	FS12	Solid	01/17/23 09:30	01/19/23 11:42	2'
890-3888-4	FS13	Solid	01/17/23 09:35	01/19/23 11:42	4'
890-3888-5	FS14	Solid	01/17/23 12:00	01/19/23 11:42	5.5'
890-3888-6	FS15	Solid	01/17/23 09:50	01/19/23 11:42	4'
890-3888-7	FS16	Solid	01/17/23 10:30	01/19/23 11:42	4'
890-3888-8	FS17	Solid	01/17/23 10:35	01/19/23 11:42	4'
890-3888-9	FS18	Solid	01/17/23 10:40	01/19/23 11:42	4'
890-3888-10	FS19	Solid	01/16/23 13:35	01/19/23 11:42	2'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com; jadams@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 151	Turn Around	
Project Number:	03D2057056	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	NM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.1
Total Containers:		Corrected Temperature:	5.4

ANALYSIS REQUEST

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS10	S	1/17/2023	9:20	4'	Comp	1		x	x	x
FS11	S	1/17/2023	9:25	4'	Comp	1		x	x	x
FS12	S	1/17/2023	9:30	2'	Comp	1		x	x	x
FS13	S	1/17/2023	9:35	4'	Comp	1		x	x	x
FS14	S	1/17/2023	12:00	5.5'	Comp	1		x	x	x
FS15	S	1/17/2023	9:50	4'	Comp	1		x	x	x
FS16	S	1/17/2023	10:30	4'	Comp	1		x	x	x
~~FS17~~	~~S~~	~~1/17/2023~~	~~10:35~~	~~4'~~	~~Comp~~	~~1~~		~~x~~	~~x~~	~~x~~
FS18	S	1/17/2023	10:40	4'	Comp	1		x	x	x
FS19	S	1/16/2023	13:35	2'	Comp	1		x	x	x

890-3888 Chain of Custody

Sample Comments

Incident Number

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DNikanorov	Cloe Cl	1.9.23 1142	2		
3			4		
5			6		

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3888-1
SDG Number: 03D2057056

Login Number: 3888
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3888-1
SDG Number: 03D2057056

Login Number: 3888
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/20/23 10:42 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/1/2023 4:13:07 PM

JOB DESCRIPTION

MCA 151
SDG NUMBER Lea County NM

JOB NUMBER

890-3891-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

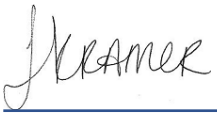
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: MCA 151

Laboratory Job ID: 890-3891-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Job ID: 890-3891-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3891-1

Receipt
The samples were received on 1/19/2023 11:42 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW11 (890-3891-1), FS01 (890-3891-2), FS02 (890-3891-3), FS03 (890-3891-4), FS04 (890-3891-5), FS05 (890-3891-6), FS06 (890-3891-7), FS07 (890-3891-8), FS08 (890-3891-9) and FS09 (890-3891-10).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-45125 and analytical batch 880-45101 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45087 and analytical batch 880-45170 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44665 and analytical batch 880-44720 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: SW11

Lab Sample ID: 890-3891-1
Matrix: Solid
Date Collected: 01/17/23 15:20
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 07:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 07:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 07:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/26/23 08:45	01/27/23 07:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 07:55	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/26/23 08:45	01/27/23 07:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/26/23 08:45*	*01/27/23 07:55*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*01/26/23 08:45*	*01/27/23 07:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 04:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 04:49	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	02/01/23 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*01/31/23 13:01*	*02/01/23 04:49*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/31/23 13:01*	*02/01/23 04:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**188**	**F1**	4.96		mg/Kg			01/25/23 16:29	1

Client Sample ID: FS01

Lab Sample ID: 890-3891-2
Matrix: Solid
Date Collected: 01/16/23 11:15
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/26/23 08:45	01/27/23 08:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/26/23 08:45	01/27/23 08:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/26/23 08:45*	*01/27/23 08:15*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS01

Lab Sample ID: 890-3891-2
Matrix: Solid
Date Collected: 01/16/23 11:15
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*01/26/23 08:45*	*01/27/23 08:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**106**		49.9	mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 12:12	1
Diesel Range Organics (Over C10-C28)	**106**		49.9	mg/Kg		01/30/23 16:04	02/01/23 12:12	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*95*		*70 - 130*	*01/30/23 16:04*	*02/01/23 12:12*	*1*
o-Terphenyl	*99*		*70 - 130*	*01/30/23 16:04*	*02/01/23 12:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.0**		5.04	mg/Kg			01/25/23 16:47	1

Client Sample ID: FS02

Lab Sample ID: 890-3891-3
Matrix: Solid
Date Collected: 01/16/23 11:20
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/26/23 08:45	01/27/23 08:36	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/26/23 08:45	01/27/23 08:36	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/26/23 08:45	01/27/23 08:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/26/23 08:45	01/27/23 08:36	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/26/23 08:45	01/27/23 08:36	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/26/23 08:45	01/27/23 08:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/26/23 08:45*	*01/27/23 08:36*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*01/26/23 08:45*	*01/27/23 08:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**152**		50.0	mg/Kg			02/01/23 16:33	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS02

Lab Sample ID: 890-3891-3
Matrix: Solid
Date Collected: 01/16/23 11:20
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 12:34	1
Diesel Range Organics (Over C10-C28)	**152**		50.0		mg/Kg		01/30/23 16:04	02/01/23 12:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/30/23 16:04*	*02/01/23 12:34*	*1*
o-Terphenyl	*83*		*70 - 130*	*01/30/23 16:04*	*02/01/23 12:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.15**		4.97		mg/Kg			01/25/23 16:54	1

Client Sample ID: FS03

Lab Sample ID: 890-3891-4
Matrix: Solid
Date Collected: 01/16/23 11:25
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/26/23 08:45	01/27/23 08:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/26/23 08:45	01/27/23 08:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/26/23 08:45	01/27/23 08:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/26/23 08:45*	*01/27/23 08:56*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*01/26/23 08:45*	*01/27/23 08:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/27/23 12:07	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**273**		50.0		mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 12:56	1
Diesel Range Organics (Over C10-C28)	**273**		50.0		mg/Kg		01/30/23 16:04	02/01/23 12:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*01/30/23 16:04*	*02/01/23 12:56*	*1*
o-Terphenyl	*87*		*70 - 130*	*01/30/23 16:04*	*02/01/23 12:56*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS03

Lab Sample ID: 890-3891-4
Matrix: Solid
Date Collected: 01/16/23 11:25
Date Received: 01/19/23 11:42
Sample Depth: 4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**98.5**		5.03		mg/Kg			01/25/23 17:12	1

Client Sample ID: FS04

Lab Sample ID: 890-3891-5
Matrix: Solid
Date Collected: 01/16/23 11:30
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 15:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 15:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 15:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/26/23 13:15	01/28/23 15:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 15:54	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/26/23 13:15	01/28/23 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/26/23 13:15*	*01/28/23 15:54*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/26/23 13:15*	*01/28/23 15:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**89.4**		49.9		mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 13:18	1
Diesel Range Organics (Over C10-C28)	**89.4**		49.9		mg/Kg		01/30/23 16:04	02/01/23 13:18	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/30/23 16:04*	*02/01/23 13:18*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/30/23 16:04*	*02/01/23 13:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**54.3**		5.00		mg/Kg			01/25/23 17:19	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS05

Lab Sample ID: 890-3891-6
Matrix: Solid
Date Collected: 01/16/23 11:35
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 16:15	1
Toluene	**0.00420**		0.00200		mg/Kg		01/26/23 13:15	01/28/23 16:15	1
Ethylbenzene	**0.00553**		0.00200		mg/Kg		01/26/23 13:15	01/28/23 16:15	1
m-Xylene & p-Xylene	**0.00668**		0.00401		mg/Kg		01/26/23 13:15	01/28/23 16:15	1
o-Xylene	**0.00320**		0.00200		mg/Kg		01/26/23 13:15	01/28/23 16:15	1
Xylenes, Total	**0.00988**		0.00401		mg/Kg		01/26/23 13:15	01/28/23 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/26/23 13:15*	*01/28/23 16:15*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*01/26/23 13:15*	*01/28/23 16:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0196**		0.00401		mg/Kg			01/30/23 10:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**73.4**		49.9		mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 13:41	1
Diesel Range Organics (Over C10-C28)	**73.4**		49.9		mg/Kg		01/30/23 16:04	02/01/23 13:41	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*01/30/23 16:04*	*02/01/23 13:41*	*1*
o-Terphenyl	*80*		*70 - 130*	*01/30/23 16:04*	*02/01/23 13:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			01/25/23 17:25	1

Client Sample ID: FS06

Lab Sample ID: 890-3891-7
Matrix: Solid
Date Collected: 01/16/23 11:40
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/25/23 13:26	01/26/23 18:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/23 13:26	01/26/23 18:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/23 13:26	01/26/23 18:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/25/23 13:26	01/26/23 18:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/23 13:26	01/26/23 18:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/23 13:26	01/26/23 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/25/23 13:26*	*01/26/23 18:27*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS06

Lab Sample ID: 890-3891-7
Matrix: Solid
Date Collected: 01/16/23 11:40
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/25/23 13:26*	*01/26/23 18:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/27/23 11:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 14:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 14:03	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/30/23 16:04	02/01/23 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*01/30/23 16:04*	*02/01/23 14:03*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/30/23 16:04*	*02/01/23 14:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.81**		4.97	mg/Kg			01/25/23 17:31	1

Client Sample ID: FS07

Lab Sample ID: 890-3891-8
Matrix: Solid
Date Collected: 01/16/23 11:45
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:26	01/26/23 18:48	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:26	01/26/23 18:48	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:26	01/26/23 18:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/23 13:26	01/26/23 18:48	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:26	01/26/23 18:48	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/23 13:26	01/26/23 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/25/23 13:26*	*01/26/23 18:48*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*01/25/23 13:26*	*01/26/23 18:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/27/23 11:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/01/23 16:33	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS07

Lab Sample ID: 890-3891-8
Matrix: Solid
Date Collected: 01/16/23 11:45
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 14:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 14:25	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/30/23 16:04*	*02/01/23 14:25*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/30/23 16:04*	*02/01/23 14:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46.0**		5.02		mg/Kg			01/25/23 17:37	1

Client Sample ID: FS08

Lab Sample ID: 890-3891-9
Matrix: Solid
Date Collected: 01/16/23 11:50
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/25/23 13:26	01/26/23 19:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:08	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/23 13:26	01/26/23 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*01/25/23 13:26*	*01/26/23 19:08*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*01/25/23 13:26*	*01/26/23 19:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/27/23 11:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 14:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 14:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*01/30/23 16:04*	*02/01/23 14:47*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/30/23 16:04*	*02/01/23 14:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS08
Date Collected: 01/16/23 11:50
Date Received: 01/19/23 11:42
Sample Depth: 4'

Lab Sample ID: 890-3891-9
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.5		5.01		mg/Kg			01/25/23 17:43	1

Client Sample ID: FS09
Date Collected: 01/16/23 11:55
Date Received: 01/19/23 11:42
Sample Depth: 4'

Lab Sample ID: 890-3891-10
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:28	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/25/23 13:26	01/26/23 19:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 19:28	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/25/23 13:26	01/26/23 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*01/25/23 13:26*	*01/26/23 19:28*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/25/23 13:26*	*01/26/23 19:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/27/23 11:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/01/23 16:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 15:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 15:09	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*01/30/23 16:04*	*02/01/23 15:09*	*1*
o-Terphenyl	*82*		*70 - 130*	*01/30/23 16:04*	*02/01/23 15:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.9		4.98		mg/Kg			01/25/23 17:49	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-24118-A-21-D MS	Matrix Spike	104	113
880-24118-A-21-E MSD	Matrix Spike Duplicate	98	111
890-3882-A-1-D MS	Matrix Spike	116	110
890-3882-A-1-E MSD	Matrix Spike Duplicate	127	103
890-3888-A-1-D MS	Matrix Spike	94	112
890-3888-A-1-E MSD	Matrix Spike Duplicate	101	116
890-3891-1	SW11	106	117
890-3891-2	FS01	109	118
890-3891-3	FS02	103	115
890-3891-4	FS03	107	117
890-3891-5	FS04	108	107
890-3891-6	FS05	105	118
890-3891-7	FS06	104	82
890-3891-8	FS07	116	86
890-3891-9	FS08	115	87
890-3891-10	FS09	83	92
LCS 880-44728/1-A	Lab Control Sample	112	104
LCS 880-44798/1-A	Lab Control Sample	95	110
LCS 880-44825/1-A	Lab Control Sample	92	114
LCSD 880-44728/2-A	Lab Control Sample Dup	110	105
LCSD 880-44798/2-A	Lab Control Sample Dup	101	107
LCSD 880-44825/2-A	Lab Control Sample Dup	96	112
MB 880-44727/5-A	Method Blank	100	108
MB 880-44728/5-A	Method Blank	78	88
MB 880-44733/5-A	Method Blank	98	113
MB 880-44798/5-A	Method Blank	106	110
MB 880-44825/5-A	Method Blank	101	112

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23972-A-14-D MS	Matrix Spike	118	103
880-23972-A-14-E MSD	Matrix Spike Duplicate	117	103
890-3888-A-10-D MS	Matrix Spike	96	90
890-3888-A-10-E MSD	Matrix Spike Duplicate	76	72
890-3891-1	SW11	93	97
890-3891-2	FS01	95	99
890-3891-3	FS02	78	83
890-3891-4	FS03	83	87
890-3891-5	FS04	84	90
890-3891-6	FS05	75	80
890-3891-7	FS06	86	90
890-3891-8	FS07	88	93

Surrogate Summary

Client: Ensolum Job ID: 890-3891-1
Project/Site: MCA 151 SDG: Lea County NM

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-3891-9	FS08	86	93								
890-3891-10	FS09	79	82								
LCS 880-45087/2-A	Lab Control Sample	72	75								
LCS 880-45125/2-A	Lab Control Sample	112	102								
LCSD 880-45087/3-A	Lab Control Sample Dup	70	73								
LCSD 880-45125/3-A	Lab Control Sample Dup	89	94								
MB 880-45087/1-A	Method Blank	122	128								
MB 880-45125/1-A	Method Blank	141 S1+	136 S1+								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44727/5-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44727

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:19	01/26/23 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 13:19	01/26/23 13:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 13:19	01/26/23 13:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/25/23 13:19*	*01/26/23 13:35*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*01/25/23 13:19*	*01/26/23 13:35*	*1*

Lab Sample ID: MB 880-44728/5-A
Matrix: Solid
Analysis Batch: 44778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44728

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 11:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 11:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 13:26	01/26/23 11:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:26	01/26/23 11:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 13:26	01/26/23 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*01/25/23 13:26*	*01/26/23 11:30*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/25/23 13:26*	*01/26/23 11:30*	*1*

Lab Sample ID: LCS 880-44728/1-A
Matrix: Solid
Analysis Batch: 44778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44728

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1033		mg/Kg		103	70 - 130		
Toluene			0.100	0.1060		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.1109		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2389		mg/Kg		119	70 - 130		
o-Xylene			0.100	0.1179		mg/Kg		118	70 - 130		

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

Lab Sample ID: LCSD 880-44728/2-A
Matrix: Solid
Analysis Batch: 44778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44728

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1082		mg/Kg		108	70 - 130	5	35

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-44728/2-A
Matrix: Solid
Analysis Batch: 44778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44728

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1042		mg/Kg		104	70 - 130	2	35
Ethylbenzene			0.100	0.1092		mg/Kg		109	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2352		mg/Kg		118	70 - 130	2	35
o-Xylene			0.100	0.1160		mg/Kg		116	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-3882-A-1-D MS
Matrix: Solid
Analysis Batch: 44778

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44728

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.1052		mg/Kg		105	70 - 130
Toluene	<0.00201	U	0.100	0.09910		mg/Kg		99	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.1043		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2230		mg/Kg		111	70 - 130
o-Xylene	<0.00201	U	0.100	0.1100		mg/Kg		110	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-3882-A-1-E MSD
Matrix: Solid
Analysis Batch: 44778

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44728

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.1005		mg/Kg		101	70 - 130	5	35
Toluene	<0.00201	U	0.0996	0.09884		mg/Kg		99	70 - 130	0	35
Ethylbenzene	<0.00201	U	0.0996	0.1104		mg/Kg		111	70 - 130	6	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2353		mg/Kg		118	70 - 130	5	35
o-Xylene	<0.00201	U	0.0996	0.1162		mg/Kg		117	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: MB 880-44733/5-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 14:13	01/28/23 01:22	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-44733/5-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 14:13	01/28/23 01:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/25/23 14:13*	*01/28/23 01:22*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/25/23 14:13*	*01/28/23 01:22*	*1*

Lab Sample ID: MB 880-44798/5-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44798

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/26/23 08:45	01/27/23 01:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/26/23 08:45*	*01/27/23 01:10*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*01/26/23 08:45*	*01/27/23 01:10*	*1*

Lab Sample ID: LCS 880-44798/1-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09257		mg/Kg		93	70 - 130		
Toluene			0.100	0.08901		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.08639		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1801		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.08711		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-44798/2-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08544		mg/Kg		85	70 - 130	8	35
Toluene			0.100	0.09543		mg/Kg		95	70 - 130	7	35
Ethylbenzene			0.100	0.09226		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1929		mg/Kg		96	70 - 130	7	35
o-Xylene			0.100	0.09416		mg/Kg		94	70 - 130	8	35

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 880-24118-A-21-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44779 — **Prep Batch: 44798**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.08526		mg/Kg		86	70 - 130
Toluene	<0.00200	U	0.0996	0.08255		mg/Kg		83	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.08046		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1709		mg/Kg		86	70 - 130
o-Xylene	<0.00200	U	0.0996	0.08321		mg/Kg		83	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 880-24118-A-21-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44779 — **Prep Batch: 44798**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.08939		mg/Kg		90	70 - 130	5	35
Toluene	<0.00200	U	0.0990	0.08494		mg/Kg		86	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.0990	0.08175		mg/Kg		83	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1714		mg/Kg		87	70 - 130	0	35
o-Xylene	<0.00200	U	0.0990	0.08289		mg/Kg		83	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: MB 880-44825/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44898 — **Prep Batch: 44825**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/26/23 13:15	01/28/23 13:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/26/23 13:15	01/28/23 13:02	1
1,4-Difluorobenzene (Surr)	112		70 - 130	01/26/23 13:15	01/28/23 13:02	1

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QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-44825/1-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44825

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09823		mg/Kg		98	70 - 130		
Toluene			0.100	0.08942		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.08453		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1730		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08428		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 880-44825/2-A
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44825

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1003		mg/Kg		100	70 - 130	2	35
Toluene			0.100	0.09169		mg/Kg		92	70 - 130	3	35
Ethylbenzene			0.100	0.08666		mg/Kg		87	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1783		mg/Kg		89	70 - 130	3	35
o-Xylene			0.100	0.08701		mg/Kg		87	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 890-3888-A-1-D MS
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0996	0.08640		mg/Kg		87	70 - 130		
Toluene	<0.00202	U	0.0996	0.07736		mg/Kg		77	70 - 130		
Ethylbenzene	<0.00202	U	0.0996	0.07233		mg/Kg		73	70 - 130		
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1478		mg/Kg		74	70 - 130		
o-Xylene	<0.00202	U	0.0996	0.07144		mg/Kg		71	70 - 130		

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

Lab Sample ID: 890-3888-A-1-E MSD
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.101	0.1024		mg/Kg		102	70 - 130	17	35
Toluene	<0.00202	U	0.101	0.09279		mg/Kg		92	70 - 130	18	35
Ethylbenzene	<0.00202	U	0.101	0.08665		mg/Kg		86	70 - 130	18	35

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QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Lab Sample ID: 890-3888-A-1-E MSD
Matrix: Solid
Analysis Batch: 44898

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1788		mg/Kg		89	70 - 130	19	35
o-Xylene	<0.00202	U	0.101	0.08615		mg/Kg		85	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

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

Lab Sample ID: MB 880-45087/1-A
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45087

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 08:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 08:29	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 08:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*01/30/23 16:04*	*02/01/23 08:29*	*1*
o-Terphenyl	*128*		*70 - 130*	*01/30/23 16:04*	*02/01/23 08:29*	*1*

Lab Sample ID: LCS 880-45087/2-A
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45087

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	852.2		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			999	826.8		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*72*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Lab Sample ID: LCSD 880-45087/3-A
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45087

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	840.8		mg/Kg		84	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			999	792.3		mg/Kg		79	70 - 130	4	20

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-45087/3-A
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45087

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	70		70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 890-3888-A-10-D MS
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45087

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	1000	918.3		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	98.5	F2	1000	1087		mg/Kg		99	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 890-3888-A-10-E MSD
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45087

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	998	1166	F2	mg/Kg		115	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	98.5	F2	998	866.4	F2	mg/Kg		77	70 - 130	23	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	76		70 - 130
o-Terphenyl	72		70 - 130

Lab Sample ID: MB 880-45125/1-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45125

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130	01/31/23 13:01	01/31/23 19:55	1
o-Terphenyl	136	S1+	70 - 130	01/31/23 13:01	01/31/23 19:55	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-45125/2-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45125

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	815.8		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			999	832.9		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: LCSD 880-45125/3-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45125

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	847.0		mg/Kg		85	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			999	783.6		mg/Kg		78	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: 880-23972-A-14-D MS
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45125

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1163		mg/Kg		112	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1162		mg/Kg		116	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: 880-23972-A-14-E MSD
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45125

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1110		mg/Kg		107	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1158		mg/Kg		116	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Lab Sample ID: 880-23972-A-14-E MSD
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45125

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	103		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44665/1-A
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/25/23 14:44	1

Lab Sample ID: LCS 880-44665/2-A
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	268.0		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-44665/3-A
Matrix: Solid
Analysis Batch: 44720

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	262.0		mg/Kg		105	90 - 110	2	20

Lab Sample ID: 890-3891-1 MS
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: SW11
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	188	F1	248	322.1	F1	mg/Kg		54	90 - 110		

Lab Sample ID: 890-3891-1 MSD
Matrix: Solid
Analysis Batch: 44720

Client Sample ID: SW11
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	188	F1	248	323.3	F1	mg/Kg		55	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

GC VOA

Prep Batch: 44727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44727/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 44728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-7	FS06	Total/NA	Solid	5035	
890-3891-8	FS07	Total/NA	Solid	5035	
890-3891-9	FS08	Total/NA	Solid	5035	
890-3891-10	FS09	Total/NA	Solid	5035	
MB 880-44728/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44728/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44728/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3882-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3882-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 44733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44733/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-7	FS06	Total/NA	Solid	8021B	44728
890-3891-8	FS07	Total/NA	Solid	8021B	44728
890-3891-9	FS08	Total/NA	Solid	8021B	44728
890-3891-10	FS09	Total/NA	Solid	8021B	44728
MB 880-44728/5-A	Method Blank	Total/NA	Solid	8021B	44728
LCS 880-44728/1-A	Lab Control Sample	Total/NA	Solid	8021B	44728
LCSD 880-44728/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44728
890-3882-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	44728
890-3882-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44728

Analysis Batch: 44779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Total/NA	Solid	8021B	44798
890-3891-2	FS01	Total/NA	Solid	8021B	44798
890-3891-3	FS02	Total/NA	Solid	8021B	44798
890-3891-4	FS03	Total/NA	Solid	8021B	44798
MB 880-44727/5-A	Method Blank	Total/NA	Solid	8021B	44727
MB 880-44798/5-A	Method Blank	Total/NA	Solid	8021B	44798
LCS 880-44798/1-A	Lab Control Sample	Total/NA	Solid	8021B	44798
LCSD 880-44798/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44798
880-24118-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	44798
880-24118-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44798

Prep Batch: 44798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Total/NA	Solid	5035	
890-3891-2	FS01	Total/NA	Solid	5035	
890-3891-3	FS02	Total/NA	Solid	5035	
890-3891-4	FS03	Total/NA	Solid	5035	
MB 880-44798/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44798/1-A	Lab Control Sample	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

GC VOA (Continued)

Prep Batch: 44798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-44798/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24118-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
880-24118-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 44825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-5	FS04	Total/NA	Solid	5035	
890-3891-6	FS05	Total/NA	Solid	5035	
MB 880-44825/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44825/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44825/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3888-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3888-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 44894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Total/NA	Solid	Total BTEX	
890-3891-2	FS01	Total/NA	Solid	Total BTEX	
890-3891-3	FS02	Total/NA	Solid	Total BTEX	
890-3891-4	FS03	Total/NA	Solid	Total BTEX	
890-3891-5	FS04	Total/NA	Solid	Total BTEX	
890-3891-6	FS05	Total/NA	Solid	Total BTEX	
890-3891-7	FS06	Total/NA	Solid	Total BTEX	
890-3891-8	FS07	Total/NA	Solid	Total BTEX	
890-3891-9	FS08	Total/NA	Solid	Total BTEX	
890-3891-10	FS09	Total/NA	Solid	Total BTEX	

Analysis Batch: 44898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-5	FS04	Total/NA	Solid	8021B	44825
890-3891-6	FS05	Total/NA	Solid	8021B	44825
MB 880-44733/5-A	Method Blank	Total/NA	Solid	8021B	44733
MB 880-44825/5-A	Method Blank	Total/NA	Solid	8021B	44825
LCS 880-44825/1-A	Lab Control Sample	Total/NA	Solid	8021B	44825
LCSD 880-44825/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44825
890-3888-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	44825
890-3888-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44825

GC Semi VOA

Prep Batch: 45087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-2	FS01	Total/NA	Solid	8015NM Prep	
890-3891-3	FS02	Total/NA	Solid	8015NM Prep	
890-3891-4	FS03	Total/NA	Solid	8015NM Prep	
890-3891-5	FS04	Total/NA	Solid	8015NM Prep	
890-3891-6	FS05	Total/NA	Solid	8015NM Prep	
890-3891-7	FS06	Total/NA	Solid	8015NM Prep	
890-3891-8	FS07	Total/NA	Solid	8015NM Prep	
890-3891-9	FS08	Total/NA	Solid	8015NM Prep	
890-3891-10	FS09	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 45087 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45087/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45087/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45087/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3888-A-10-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3888-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Total/NA	Solid	8015B NM	45125
MB 880-45125/1-A	Method Blank	Total/NA	Solid	8015B NM	45125
LCS 880-45125/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45125
LCSD 880-45125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45125
880-23972-A-14-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45125
880-23972-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45125

Prep Batch: 45125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Total/NA	Solid	8015NM Prep	
MB 880-45125/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45125/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23972-A-14-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23972-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-2	FS01	Total/NA	Solid	8015B NM	45087
890-3891-3	FS02	Total/NA	Solid	8015B NM	45087
890-3891-4	FS03	Total/NA	Solid	8015B NM	45087
890-3891-5	FS04	Total/NA	Solid	8015B NM	45087
890-3891-6	FS05	Total/NA	Solid	8015B NM	45087
890-3891-7	FS06	Total/NA	Solid	8015B NM	45087
890-3891-8	FS07	Total/NA	Solid	8015B NM	45087
890-3891-9	FS08	Total/NA	Solid	8015B NM	45087
890-3891-10	FS09	Total/NA	Solid	8015B NM	45087
MB 880-45087/1-A	Method Blank	Total/NA	Solid	8015B NM	45087
LCS 880-45087/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45087
LCSD 880-45087/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45087
890-3888-A-10-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45087
890-3888-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45087

Analysis Batch: 45176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Total/NA	Solid	8015 NM	
890-3891-2	FS01	Total/NA	Solid	8015 NM	
890-3891-3	FS02	Total/NA	Solid	8015 NM	
890-3891-4	FS03	Total/NA	Solid	8015 NM	
890-3891-5	FS04	Total/NA	Solid	8015 NM	
890-3891-6	FS05	Total/NA	Solid	8015 NM	
890-3891-7	FS06	Total/NA	Solid	8015 NM	
890-3891-8	FS07	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 45176 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-9	FS08	Total/NA	Solid	8015 NM	
890-3891-10	FS09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Soluble	Solid	DI Leach	
890-3891-2	FS01	Soluble	Solid	DI Leach	
890-3891-3	FS02	Soluble	Solid	DI Leach	
890-3891-4	FS03	Soluble	Solid	DI Leach	
890-3891-5	FS04	Soluble	Solid	DI Leach	
890-3891-6	FS05	Soluble	Solid	DI Leach	
890-3891-7	FS06	Soluble	Solid	DI Leach	
890-3891-8	FS07	Soluble	Solid	DI Leach	
890-3891-9	FS08	Soluble	Solid	DI Leach	
890-3891-10	FS09	Soluble	Solid	DI Leach	
MB 880-44665/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44665/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44665/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3891-1 MS	SW11	Soluble	Solid	DI Leach	
890-3891-1 MSD	SW11	Soluble	Solid	DI Leach	

Analysis Batch: 44720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3891-1	SW11	Soluble	Solid	300.0	44665
890-3891-2	FS01	Soluble	Solid	300.0	44665
890-3891-3	FS02	Soluble	Solid	300.0	44665
890-3891-4	FS03	Soluble	Solid	300.0	44665
890-3891-5	FS04	Soluble	Solid	300.0	44665
890-3891-6	FS05	Soluble	Solid	300.0	44665
890-3891-7	FS06	Soluble	Solid	300.0	44665
890-3891-8	FS07	Soluble	Solid	300.0	44665
890-3891-9	FS08	Soluble	Solid	300.0	44665
890-3891-10	FS09	Soluble	Solid	300.0	44665
MB 880-44665/1-A	Method Blank	Soluble	Solid	300.0	44665
LCS 880-44665/2-A	Lab Control Sample	Soluble	Solid	300.0	44665
LCSD 880-44665/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44665
890-3891-1 MS	SW11	Soluble	Solid	300.0	44665
890-3891-1 MSD	SW11	Soluble	Solid	300.0	44665

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: SW11

Date Collected: 01/17/23 15:20
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44798	01/26/23 08:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44779	01/27/23 07:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 09:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 04:49	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 16:29	CH	EET MID

Client Sample ID: FS01

Date Collected: 01/16/23 11:15
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44798	01/26/23 08:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44779	01/27/23 08:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 09:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 12:12	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 16:47	CH	EET MID

Client Sample ID: FS02

Date Collected: 01/16/23 11:20
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	44798	01/26/23 08:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44779	01/27/23 08:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 09:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 12:34	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 16:54	CH	EET MID

Client Sample ID: FS03

Date Collected: 01/16/23 11:25
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44798	01/26/23 08:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44779	01/27/23 08:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 12:07	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS03

Lab Sample ID: 890-3891-4
Matrix: Solid
Date Collected: 01/16/23 11:25
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 12:56	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 17:12	CH	EET MID

Client Sample ID: FS04

Lab Sample ID: 890-3891-5
Matrix: Solid
Date Collected: 01/16/23 11:30
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 15:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/30/23 10:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 13:18	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 17:19	CH	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-3891-6
Matrix: Solid
Date Collected: 01/16/23 11:35
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44825	01/26/23 13:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44898	01/28/23 16:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/30/23 10:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 13:41	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 17:25	CH	EET MID

Client Sample ID: FS06

Lab Sample ID: 890-3891-7
Matrix: Solid
Date Collected: 01/16/23 11:40
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44728	01/25/23 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44778	01/26/23 18:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 11:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 14:03	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Client Sample ID: FS06
Date Collected: 01/16/23 11:40
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 17:31	CH	EET MID

Client Sample ID: FS07
Date Collected: 01/16/23 11:45
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	44728	01/25/23 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44778	01/26/23 18:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 11:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 14:25	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 17:37	CH	EET MID

Client Sample ID: FS08
Date Collected: 01/16/23 11:50
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44728	01/25/23 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44778	01/26/23 19:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 11:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 14:47	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 17:43	CH	EET MID

Client Sample ID: FS09
Date Collected: 01/16/23 11:55
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3891-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44728	01/25/23 13:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44778	01/26/23 19:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44894	01/27/23 11:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45176	02/01/23 16:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 15:09	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44665	01/24/23 15:25	KS	EET MID
Soluble	Analysis	300.0		1			44720	01/25/23 17:49	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3891-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3891-1	SW11	Solid	01/17/23 15:20	01/19/23 11:42	0-4'
890-3891-2	FS01	Solid	01/16/23 11:15	01/19/23 11:42	4'
890-3891-3	FS02	Solid	01/16/23 11:20	01/19/23 11:42	4'
890-3891-4	FS03	Solid	01/16/23 11:25	01/19/23 11:42	4'
890-3891-5	FS04	Solid	01/16/23 11:30	01/19/23 11:42	4'
890-3891-6	FS05	Solid	01/16/23 11:35	01/19/23 11:42	4'
890-3891-7	FS06	Solid	01/16/23 11:40	01/19/23 11:42	4'
890-3891-8	FS07	Solid	01/16/23 11:45	01/19/23 11:42	4'
890-3891-9	FS08	Solid	01/16/23 11:50	01/19/23 11:42	4'
890-3891-10	FS09	Solid	01/16/23 11:55	01/19/23 11:42	4'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437 Email:		kjennings@ensolum.com; jadams@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 151	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057056	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR#007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
SW11	S	1/17/2023	15:20	0'-4'	Comp	1		x	x	x
FS01	S	1/16/2023	11:15	4'	Comp	1		x	x	x
FS02	S	1/16/2023	11:20	4'	Comp	1		x	x	x
FS03	S	1/16/2023	11:25	4'	Comp	1		x	x	x
FS04	S	1/16/2023	11:30	4'	Comp	1		x	x	x
FS05	S	1/16/2023	11:35	4'	Comp	1		x	x	x
FS06	S	1/16/2023	11:40	4'	Comp	1		x	x	x
FS07	S	1/16/2023	11:45	4'	Comp	1		x	x	x
FS08	S	1/16/2023	11:50	4'	Comp	1		x	x	x
FS09	S	1/16/2023	11:55	4'	Comp	1		x	x	x

890-3891 Chain of Custody

Sample Comments

Incident Number

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1.19.23 1142	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3891-1
SDG Number: Lea County NM

Login Number: 3891
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3891-1
SDG Number: Lea County NM

Login Number: 3891
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/20/23 10:42 AM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/2/2023 1:08:43 PM

JOB DESCRIPTION

MCA 151
SDG NUMBER 03D2057056

JOB NUMBER

890-3893-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

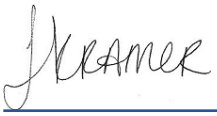
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: MCA 151

Laboratory Job ID: 890-3893-1
SDG: 03D2057056

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Job ID: 890-3893-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3893-1

Receipt
The samples were received on 1/19/2023 11:42 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW01 (890-3893-1), SW02 (890-3893-2), SW03 (890-3893-3), SW04 (890-3893-4), SW05 (890-3893-5), SW06 (890-3893-6), SW07 (890-3893-7), SW08 (890-3893-8), SW09 (890-3893-9) and SW10 (890-3893-10).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-44738 and analytical batch 880-44986 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-45125 and analytical batch 880-45101 was outside the upper control limits.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-45126 and analytical batch 880-45103 was outside the upper control limits.

Method 8015MOD_NM: The method blank for preparation batch 880-45126 and analytical batch 880-45103 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-45126 and analytical batch 880-45103 was outside control limits. Sample non-homogeneity is suspected.

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 880-44670 and analytical batch 880-44722 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW01

Lab Sample ID: 890-3893-1
Matrix: Solid
Date Collected: 01/16/23 09:40
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/25/23 14:56	01/30/23 13:19	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/25/23 14:56	01/30/23 13:19	1
Ethylbenzene	<0.00198	U F1	0.00198		mg/Kg		01/25/23 14:56	01/30/23 13:19	1
m-Xylene & p-Xylene	<0.00396	U F1	0.00396		mg/Kg		01/25/23 14:56	01/30/23 13:19	1
o-Xylene	<0.00198	U F1	0.00198		mg/Kg		01/25/23 14:56	01/30/23 13:19	1
Xylenes, Total	<0.00396	U F1	0.00396		mg/Kg		01/25/23 14:56	01/30/23 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/25/23 14:56*	*01/30/23 13:19*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*01/25/23 14:56*	*01/30/23 13:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/02/23 12:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 16:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 16:15	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/30/23 16:04*	*02/01/23 16:15*	*1*
o-Terphenyl	*80*		*70 - 130*	*01/30/23 16:04*	*02/01/23 16:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U F1	5.05		mg/Kg			01/26/23 02:15	1

Client Sample ID: SW02

Lab Sample ID: 890-3893-2
Matrix: Solid
Date Collected: 01/16/23 09:45
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 13:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 13:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 13:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/25/23 14:56	01/30/23 13:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 13:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/23 14:56	01/30/23 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/25/23 14:56*	*01/30/23 13:40*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW02

Date Collected: 01/16/23 09:45
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Lab Sample ID: 890-3893-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/25/23 14:56*	*01/30/23 13:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/02/23 12:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/30/23 16:04	02/01/23 16:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/30/23 16:04	02/01/23 16:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/30/23 16:04	02/01/23 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*01/30/23 16:04*	*02/01/23 16:38*	*1*
o-Terphenyl	*92*		*70 - 130*	*01/30/23 16:04*	*02/01/23 16:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97	mg/Kg			01/26/23 02:33	1

Client Sample ID: SW03

Date Collected: 01/16/23 09:50
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Lab Sample ID: 890-3893-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:56	01/30/23 14:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:56	01/30/23 14:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:56	01/30/23 14:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/25/23 14:56	01/30/23 14:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:56	01/30/23 14:01	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/25/23 14:56	01/30/23 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/25/23 14:56*	*01/30/23 14:01*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*01/25/23 14:56*	*01/30/23 14:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/02/23 12:15	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW03

Lab Sample ID: 890-3893-3
Matrix: Solid
Date Collected: 01/16/23 09:50
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 16:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 16:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/30/23 16:04	02/01/23 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*01/30/23 16:04*	*02/01/23 16:59*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/30/23 16:04*	*02/01/23 16:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/26/23 02:40	1

Client Sample ID: SW04

Lab Sample ID: 890-3893-4
Matrix: Solid
Date Collected: 01/16/23 13:40
Date Received: 01/19/23 11:42
Sample Depth: 2'-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/25/23 14:56	01/30/23 14:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/25/23 14:56	01/30/23 14:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/25/23 14:56	01/30/23 14:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/25/23 14:56	01/30/23 14:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/25/23 14:56	01/30/23 14:22	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/25/23 14:56	01/30/23 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/25/23 14:56*	*01/30/23 14:22*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*01/25/23 14:56*	*01/30/23 14:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**147**		49.9		mg/Kg			02/02/23 12:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 17:19	1
Diesel Range Organics (Over C10-C28)	**147**		49.9		mg/Kg		01/30/23 16:04	02/01/23 17:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/30/23 16:04	02/01/23 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*01/30/23 16:04*	*02/01/23 17:19*	*1*
o-Terphenyl	*103*		*70 - 130*	*01/30/23 16:04*	*02/01/23 17:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW04

Lab Sample ID: 890-3893-4
Matrix: Solid
Date Collected: 01/16/23 13:40
Date Received: 01/19/23 11:42
Sample Depth: 2'-4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			01/26/23 02:46	1

Client Sample ID: SW05

Lab Sample ID: 890-3893-5
Matrix: Solid
Date Collected: 01/17/23 11:15
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 14:42	1
Toluene	**0.00328**		0.00199		mg/Kg		01/25/23 14:56	01/30/23 14:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 14:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/25/23 14:56	01/30/23 14:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 14:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/23 14:56	01/30/23 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*01/25/23 14:56*	*01/30/23 14:42*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/25/23 14:56*	*01/30/23 14:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/01/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 05:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 05:11	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 13:01	02/01/23 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*01/31/23 13:01*	*02/01/23 05:11*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/31/23 13:01*	*02/01/23 05:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.96**		4.96		mg/Kg			01/26/23 02:52	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW06

Lab Sample ID: 890-3893-6
Matrix: Solid
Date Collected: 01/17/23 11:20
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 15:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 15:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 15:03	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/25/23 14:56	01/30/23 15:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 15:03	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/23 14:56	01/30/23 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/25/23 14:56*	*01/30/23 15:03*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/25/23 14:56*	*01/30/23 15:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:05	01/31/23 21:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U F2	50.0		mg/Kg		01/31/23 13:05	01/31/23 21:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 13:05	01/31/23 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*01/31/23 13:05*	*01/31/23 21:02*	*1*
o-Terphenyl	*113*		*70 - 130*	*01/31/23 13:05*	*01/31/23 21:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			01/26/23 03:10	1

Client Sample ID: SW07

Lab Sample ID: 890-3893-7
Matrix: Solid
Date Collected: 01/17/23 15:00
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 15:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 15:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 15:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/25/23 14:56	01/30/23 15:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/23 14:56	01/30/23 15:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/23 14:56	01/30/23 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/25/23 14:56*	*01/30/23 15:27*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW07

Lab Sample ID: 890-3893-7
Matrix: Solid
Date Collected: 01/17/23 15:00
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/25/23 14:56*	*01/30/23 15:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 13:05	01/31/23 22:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/23 13:05	01/31/23 22:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 13:05	01/31/23 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*01/31/23 13:05*	*01/31/23 22:09*	*1*
o-Terphenyl	*106*		*70 - 130*	*01/31/23 13:05*	*01/31/23 22:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01	mg/Kg			01/26/23 03:17	1

Client Sample ID: SW08

Lab Sample ID: 890-3893-8
Matrix: Solid
Date Collected: 01/17/23 15:05
Date Received: 01/19/23 11:42
Sample Depth: 0-5.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/25/23 14:56	01/30/23 15:47	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/23 14:56	01/30/23 15:47	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/23 14:56	01/30/23 15:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/23 14:56	01/30/23 15:47	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/23 14:56	01/30/23 15:47	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/23 14:56	01/30/23 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*01/25/23 14:56*	*01/30/23 15:47*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*01/25/23 14:56*	*01/30/23 15:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/01/23 10:03	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW08

Lab Sample ID: 890-3893-8
Matrix: Solid
Date Collected: 01/17/23 15:05
Date Received: 01/19/23 11:42
Sample Depth: 0-5.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:05	01/31/23 22:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/23 13:05	01/31/23 22:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 13:05	01/31/23 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/31/23 13:05*	*01/31/23 22:31*	*1*
o-Terphenyl	*101*		*70 - 130*	*01/31/23 13:05*	*01/31/23 22:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04		mg/Kg			01/26/23 03:23	1

Client Sample ID: SW09

Lab Sample ID: 890-3893-9
Matrix: Solid
Date Collected: 01/17/23 15:10
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/25/23 14:56	01/30/23 16:08	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/25/23 14:56	01/30/23 16:08	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/25/23 14:56	01/30/23 16:08	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/25/23 14:56	01/30/23 16:08	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/25/23 14:56	01/30/23 16:08	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/25/23 14:56	01/30/23 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/25/23 14:56*	*01/30/23 16:08*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*01/25/23 14:56*	*01/30/23 16:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**131**		50.0		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:05	01/31/23 22:54	1
Diesel Range Organics (Over C10-C28)	**131**		50.0		mg/Kg		01/31/23 13:05	01/31/23 22:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 13:05	01/31/23 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/31/23 13:05*	*01/31/23 22:54*	*1*
o-Terphenyl	*94*		*70 - 130*	*01/31/23 13:05*	*01/31/23 22:54*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW09

Lab Sample ID: 890-3893-9
Matrix: Solid
Date Collected: 01/17/23 15:10
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.0		4.99		mg/Kg			01/26/23 03:29	1

Client Sample ID: SW10

Lab Sample ID: 890-3893-10
Matrix: Solid
Date Collected: 01/17/23 15:15
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/25/23 14:56	01/30/23 16:29	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/23 14:56	01/30/23 16:29	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/25/23 14:56	01/30/23 16:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/25/23 14:56	01/30/23 16:29	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/25/23 14:56	01/30/23 16:29	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/25/23 14:56	01/30/23 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/25/23 14:56*	*01/30/23 16:29*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/25/23 14:56*	*01/30/23 16:29*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/31/23 13:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:05	01/31/23 23:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:05	01/31/23 23:16	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:05	01/31/23 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*01/31/23 13:05*	*01/31/23 23:16*	*1*
o-Terphenyl	*107*		*70 - 130*	*01/31/23 13:05*	*01/31/23 23:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.91		5.03		mg/Kg			01/26/23 03:35	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

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)
890-3893-1	SW01	111	102
890-3893-1 MS	SW01	85	104
890-3893-1 MSD	SW01	100	106
890-3893-2	SW02	116	103
890-3893-3	SW03	107	76
890-3893-4	SW04	101	96
890-3893-5	SW05	117	112
890-3893-6	SW06	108	104
890-3893-7	SW07	111	100
890-3893-8	SW08	119	102
890-3893-9	SW09	103	109
890-3893-10	SW10	105	103
LCS 880-44738/1-A	Lab Control Sample	83	95
LCSD 880-44738/2-A	Lab Control Sample Dup	81	102
MB 880-44738/5-A	Method Blank	88	87

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-23972-A-14-D MS	Matrix Spike	118	103
880-23972-A-14-E MSD	Matrix Spike Duplicate	117	103
890-3893-1	SW01	77	80
890-3893-2	SW02	87	92
890-3893-3	SW03	94	100
890-3893-4	SW04	96	103
890-3893-5	SW05	109	100
890-3893-6	SW06	110	113
890-3893-6 MS	SW06	81	75
890-3893-6 MSD	SW06	98	94
890-3893-7	SW07	103	106
890-3893-8	SW08	88	101
890-3893-9	SW09	88	94
890-3893-10	SW10	96	107
LCS 880-45125/2-A	Lab Control Sample	112	102
LCS 880-45126/2-A	Lab Control Sample	76	87
LCSD 880-45125/3-A	Lab Control Sample Dup	89	94
LCSD 880-45126/3-A	Lab Control Sample Dup	84	90
MB 880-45125/1-A	Method Blank	141 S1+	136 S1+
MB 880-45126/1-A	Method Blank	138 S1+	161 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44738/5-A
Matrix: Solid
Analysis Batch: 44986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44738

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 12:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 12:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 12:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/23 14:56	01/30/23 12:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 14:56	01/30/23 12:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 14:56	01/30/23 12:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*01/25/23 14:56*	*01/30/23 12:57*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*01/25/23 14:56*	*01/30/23 12:57*	*1*

Lab Sample ID: LCS 880-44738/1-A
Matrix: Solid
Analysis Batch: 44986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44738

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09573		mg/Kg		96	70 - 130		
Toluene			0.100	0.08955		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08015		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene			0.200	0.1604		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08030		mg/Kg		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-44738/2-A
Matrix: Solid
Analysis Batch: 44986

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44738

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1013		mg/Kg		101	70 - 130	6	35
Toluene			0.100	0.09557		mg/Kg		96	70 - 130	7	35
Ethylbenzene			0.100	0.08178		mg/Kg		82	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1637		mg/Kg		82	70 - 130	2	35
o-Xylene			0.100	0.08042		mg/Kg		80	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3893-1 MS
Matrix: Solid
Analysis Batch: 44986

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 44738

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00198	U	0.0998	0.09358		mg/Kg		94	70 - 130		
Toluene	<0.00198	U	0.0998	0.07247		mg/Kg		73	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

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

Lab Sample ID: 890-3893-1 MS
Matrix: Solid
Analysis Batch: 44986

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 44738

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.0998	0.06098	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00396	U F1	0.200	0.1276	F1	mg/Kg		64	70 - 130
o-Xylene	<0.00198	U F1	0.0998	0.06433	F1	mg/Kg		64	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-3893-1 MSD
Matrix: Solid
Analysis Batch: 44986

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 44738

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.09618		mg/Kg		95	70 - 130	3	35
Toluene	<0.00198	U	0.101	0.07154		mg/Kg		71	70 - 130	1	35
Ethylbenzene	<0.00198	U F1	0.101	0.05892	F1	mg/Kg		58	70 - 130	3	35
m-Xylene & p-Xylene	<0.00396	U F1	0.202	0.1264	F1	mg/Kg		63	70 - 130	1	35
o-Xylene	<0.00198	U F1	0.101	0.06549	F1	mg/Kg		64	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: MB 880-45125/1-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45125

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:01	01/31/23 19:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*141*	*S1+*	*70 - 130*	*01/31/23 13:01*	*01/31/23 19:55*	*1*
o-Terphenyl	*136*	*S1+*	*70 - 130*	*01/31/23 13:01*	*01/31/23 19:55*	*1*

Lab Sample ID: LCS 880-45125/2-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45125

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			999	815.8		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)			999	832.9		mg/Kg		83	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

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

Lab Sample ID: LCS 880-45125/2-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-45125/3-A
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45125

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	847.0		mg/Kg		85	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			999	783.6		mg/Kg		78	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 880-23972-A-14-D MS
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45125

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1163		mg/Kg		112	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1162		mg/Kg		116	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 880-23972-A-14-E MSD
Matrix: Solid
Analysis Batch: 45101

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45125

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1110		mg/Kg		107	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1158		mg/Kg		116	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	103		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

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

Lab Sample ID: MB 880-45126/1-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45126

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:05	01/31/23 19:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/23 13:05	01/31/23 19:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:05	01/31/23 19:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*138*	*S1+*	*70 - 130*	*01/31/23 13:05*	*01/31/23 19:55*	*1*
o-Terphenyl	*161*	*S1+*	*70 - 130*	*01/31/23 13:05*	*01/31/23 19:55*	*1*

Lab Sample ID: LCS 880-45126/2-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45126

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	823.4		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			999	808.2		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: LCSD 880-45126/3-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45126

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	929.8		mg/Kg		93	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			999	935.2		mg/Kg		94	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: 890-3893-6 MS
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: SW06
Prep Type: Total/NA
Prep Batch: 45126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	804.1		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F2	1000	881.9		mg/Kg		85	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

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

Lab Sample ID: 890-3893-6 MS
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: SW06
Prep Type: Total/NA
Prep Batch: 45126

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	75		70 - 130

Lab Sample ID: 890-3893-6 MSD
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: SW06
Prep Type: Total/NA
Prep Batch: 45126

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	902.3		mg/Kg		88	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	<50.0	U F2	998	1097	F2	mg/Kg		107	70 - 130	22	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	94		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44670/1-A
Matrix: Solid
Analysis Batch: 44722

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/26/23 01:57	1

Lab Sample ID: LCS 880-44670/2-A
Matrix: Solid
Analysis Batch: 44722

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	266.9		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-44670/3-A
Matrix: Solid
Analysis Batch: 44722

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	267.0		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-3893-1 MS
Matrix: Solid
Analysis Batch: 44722

Client Sample ID: SW01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<5.05	U F1	253	283.5	F1	mg/Kg		111	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3893-1 MSD
Matrix: Solid
Analysis Batch: 44722

Client Sample ID: SW01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.05	U F1	253	279.1		mg/Kg		109	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

GC VOA

Prep Batch: 44738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Total/NA	Solid	5035	
890-3893-2	SW02	Total/NA	Solid	5035	
890-3893-3	SW03	Total/NA	Solid	5035	
890-3893-4	SW04	Total/NA	Solid	5035	
890-3893-5	SW05	Total/NA	Solid	5035	
890-3893-6	SW06	Total/NA	Solid	5035	
890-3893-7	SW07	Total/NA	Solid	5035	
890-3893-8	SW08	Total/NA	Solid	5035	
890-3893-9	SW09	Total/NA	Solid	5035	
890-3893-10	SW10	Total/NA	Solid	5035	
MB 880-44738/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44738/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44738/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3893-1 MS	SW01	Total/NA	Solid	5035	
890-3893-1 MSD	SW01	Total/NA	Solid	5035	

Analysis Batch: 44986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Total/NA	Solid	8021B	44738
890-3893-2	SW02	Total/NA	Solid	8021B	44738
890-3893-3	SW03	Total/NA	Solid	8021B	44738
890-3893-4	SW04	Total/NA	Solid	8021B	44738
890-3893-5	SW05	Total/NA	Solid	8021B	44738
890-3893-6	SW06	Total/NA	Solid	8021B	44738
890-3893-7	SW07	Total/NA	Solid	8021B	44738
890-3893-8	SW08	Total/NA	Solid	8021B	44738
890-3893-9	SW09	Total/NA	Solid	8021B	44738
890-3893-10	SW10	Total/NA	Solid	8021B	44738
MB 880-44738/5-A	Method Blank	Total/NA	Solid	8021B	44738
LCS 880-44738/1-A	Lab Control Sample	Total/NA	Solid	8021B	44738
LCSD 880-44738/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44738
890-3893-1 MS	SW01	Total/NA	Solid	8021B	44738
890-3893-1 MSD	SW01	Total/NA	Solid	8021B	44738

Analysis Batch: 45132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Total/NA	Solid	Total BTEX	
890-3893-2	SW02	Total/NA	Solid	Total BTEX	
890-3893-3	SW03	Total/NA	Solid	Total BTEX	
890-3893-4	SW04	Total/NA	Solid	Total BTEX	
890-3893-5	SW05	Total/NA	Solid	Total BTEX	
890-3893-6	SW06	Total/NA	Solid	Total BTEX	
890-3893-7	SW07	Total/NA	Solid	Total BTEX	
890-3893-8	SW08	Total/NA	Solid	Total BTEX	
890-3893-9	SW09	Total/NA	Solid	Total BTEX	
890-3893-10	SW10	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

GC Semi VOA

Prep Batch: 45087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Total/NA	Solid	8015NM Prep	
890-3893-2	SW02	Total/NA	Solid	8015NM Prep	
890-3893-3	SW03	Total/NA	Solid	8015NM Prep	
890-3893-4	SW04	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-5	SW05	Total/NA	Solid	8015B NM	45125
MB 880-45125/1-A	Method Blank	Total/NA	Solid	8015B NM	45125
LCS 880-45125/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45125
LCSD 880-45125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45125
880-23972-A-14-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45125
880-23972-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45125

Analysis Batch: 45103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-6	SW06	Total/NA	Solid	8015B NM	45126
890-3893-7	SW07	Total/NA	Solid	8015B NM	45126
890-3893-8	SW08	Total/NA	Solid	8015B NM	45126
890-3893-9	SW09	Total/NA	Solid	8015B NM	45126
890-3893-10	SW10	Total/NA	Solid	8015B NM	45126
MB 880-45126/1-A	Method Blank	Total/NA	Solid	8015B NM	45126
LCS 880-45126/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45126
LCSD 880-45126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45126
890-3893-6 MS	SW06	Total/NA	Solid	8015B NM	45126
890-3893-6 MSD	SW06	Total/NA	Solid	8015B NM	45126

Prep Batch: 45125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-5	SW05	Total/NA	Solid	8015NM Prep	
MB 880-45125/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45125/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45125/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23972-A-14-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23972-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 45126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-6	SW06	Total/NA	Solid	8015NM Prep	
890-3893-7	SW07	Total/NA	Solid	8015NM Prep	
890-3893-8	SW08	Total/NA	Solid	8015NM Prep	
890-3893-9	SW09	Total/NA	Solid	8015NM Prep	
890-3893-10	SW10	Total/NA	Solid	8015NM Prep	
MB 880-45126/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45126/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3893-6 MS	SW06	Total/NA	Solid	8015NM Prep	
890-3893-6 MSD	SW06	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

GC Semi VOA

Analysis Batch: 45170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Total/NA	Solid	8015B NM	45087
890-3893-2	SW02	Total/NA	Solid	8015B NM	45087
890-3893-3	SW03	Total/NA	Solid	8015B NM	45087
890-3893-4	SW04	Total/NA	Solid	8015B NM	45087

Analysis Batch: 45177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Total/NA	Solid	8015 NM	
890-3893-2	SW02	Total/NA	Solid	8015 NM	
890-3893-3	SW03	Total/NA	Solid	8015 NM	
890-3893-4	SW04	Total/NA	Solid	8015 NM	
890-3893-5	SW05	Total/NA	Solid	8015 NM	
890-3893-6	SW06	Total/NA	Solid	8015 NM	
890-3893-7	SW07	Total/NA	Solid	8015 NM	
890-3893-8	SW08	Total/NA	Solid	8015 NM	
890-3893-9	SW09	Total/NA	Solid	8015 NM	
890-3893-10	SW10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Soluble	Solid	DI Leach	
890-3893-2	SW02	Soluble	Solid	DI Leach	
890-3893-3	SW03	Soluble	Solid	DI Leach	
890-3893-4	SW04	Soluble	Solid	DI Leach	
890-3893-5	SW05	Soluble	Solid	DI Leach	
890-3893-6	SW06	Soluble	Solid	DI Leach	
890-3893-7	SW07	Soluble	Solid	DI Leach	
890-3893-8	SW08	Soluble	Solid	DI Leach	
890-3893-9	SW09	Soluble	Solid	DI Leach	
890-3893-10	SW10	Soluble	Solid	DI Leach	
MB 880-44670/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44670/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44670/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3893-1 MS	SW01	Soluble	Solid	DI Leach	
890-3893-1 MSD	SW01	Soluble	Solid	DI Leach	

Analysis Batch: 44722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3893-1	SW01	Soluble	Solid	300.0	44670
890-3893-2	SW02	Soluble	Solid	300.0	44670
890-3893-3	SW03	Soluble	Solid	300.0	44670
890-3893-4	SW04	Soluble	Solid	300.0	44670
890-3893-5	SW05	Soluble	Solid	300.0	44670
890-3893-6	SW06	Soluble	Solid	300.0	44670
890-3893-7	SW07	Soluble	Solid	300.0	44670
890-3893-8	SW08	Soluble	Solid	300.0	44670
890-3893-9	SW09	Soluble	Solid	300.0	44670
890-3893-10	SW10	Soluble	Solid	300.0	44670
MB 880-44670/1-A	Method Blank	Soluble	Solid	300.0	44670

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

HPLC/IC (Continued)

Analysis Batch: 44722 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-44670/2-A	Lab Control Sample	Soluble	Solid	300.0	44670
LCSD 880-44670/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44670
890-3893-1 MS	SW01	Soluble	Solid	300.0	44670
890-3893-1 MSD	SW01	Soluble	Solid	300.0	44670

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW01

Lab Sample ID: 890-3893-1
Matrix: Solid
Date Collected: 01/16/23 09:40
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 13:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/02/23 12:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 16:15	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 02:15	CH	EET MID

Client Sample ID: SW02

Lab Sample ID: 890-3893-2
Matrix: Solid
Date Collected: 01/16/23 09:45
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 13:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/02/23 12:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 16:38	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 02:33	CH	EET MID

Client Sample ID: SW03

Lab Sample ID: 890-3893-3
Matrix: Solid
Date Collected: 01/16/23 09:50
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 14:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/02/23 12:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 16:59	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 02:40	CH	EET MID

Client Sample ID: SW04

Lab Sample ID: 890-3893-4
Matrix: Solid
Date Collected: 01/16/23 13:40
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 14:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW04

Lab Sample ID: 890-3893-4
Matrix: Solid
Date Collected: 01/16/23 13:40
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45177	02/02/23 12:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45087	01/30/23 16:04	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45170	02/01/23 17:19	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 02:46	CH	EET MID

Client Sample ID: SW05

Lab Sample ID: 890-3893-5
Matrix: Solid
Date Collected: 01/17/23 11:15
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 14:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/01/23 09:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45125	01/31/23 13:01	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45101	02/01/23 05:11	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 02:52	CH	EET MID

Client Sample ID: SW06

Lab Sample ID: 890-3893-6
Matrix: Solid
Date Collected: 01/17/23 11:20
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 15:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 21:02	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 03:10	CH	EET MID

Client Sample ID: SW07

Lab Sample ID: 890-3893-7
Matrix: Solid
Date Collected: 01/17/23 15:00
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 15:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 22:09	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Client Sample ID: SW07
Date Collected: 01/17/23 15:00
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3893-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 03:17	CH	EET MID

Client Sample ID: SW08
Date Collected: 01/17/23 15:05
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3893-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 15:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 22:31	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 03:23	CH	EET MID

Client Sample ID: SW09
Date Collected: 01/17/23 15:10
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3893-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 16:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 22:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 03:29	CH	EET MID

Client Sample ID: SW10
Date Collected: 01/17/23 15:15
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3893-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44738	01/25/23 14:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44986	01/30/23 16:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45132	01/31/23 13:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			45177	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	01/31/23 23:16	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 03:35	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3893-1
SDG: 03D2057056

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3893-1	SW01	Solid	01/16/23 09:40	01/19/23 11:42	0-4'
890-3893-2	SW02	Solid	01/16/23 09:45	01/19/23 11:42	0-4'
890-3893-3	SW03	Solid	01/16/23 09:50	01/19/23 11:42	0-4'
890-3893-4	SW04	Solid	01/16/23 13:40	01/19/23 11:42	2'-4'
890-3893-5	SW05	Solid	01/17/23 11:15	01/19/23 11:42	0-4'
890-3893-6	SW06	Solid	01/17/23 11:20	01/19/23 11:42	0-4'
890-3893-7	SW07	Solid	01/17/23 15:00	01/19/23 11:42	0-4'
890-3893-8	SW08	Solid	01/17/23 15:05	01/19/23 11:42	0-5.5'
890-3893-9	SW09	Solid	01/17/23 15:10	01/19/23 11:42	0-4'
890-3893-10	SW10	Solid	01/17/23 15:15	01/19/23 11:42	0-4'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com; jadams@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

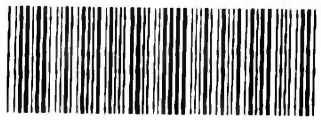
Project Name:	MCA 151	Turn Around	
Project Number:	03D2057056	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SW01	S	1/16/2023	9:40	0'-4'	Comp	1		x	x	x	
SW02	S	1/16/2023	9:45	0'-4'	Comp	1		x	x	x	
SW03	S	1/16/2023	9:50	0'-4'	Comp	1		x	x	x	Incident Number
SW04	S	1/16/2023	13:40	2'-4'	Comp	1		x	x	x	
SW05	S	1/17/2023	11:15	0'-4'	Comp	1		x	x	x	
SW06	S	1/17/2023	11:20	0'-4'	Comp	1		x	x	x	
SW07	S	1/17/2023	15:00	0'-4'	Comp	1		x	x	x	
~~SW08~~	~~S~~	~~1/17/2023~~	~~15:05~~	~~0-5.5'~~	~~Comp~~	~~1~~		~~x~~	~~x~~	~~x~~	
SW09	S	1/17/2023	15:10	0'-4'	Comp	1		x	x	x	
SW10	S	1/17/2023	15:15	0'-4'	Comp	1		x	x	x	



ANALYSIS REQUEST

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1-19-23 1142	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3893-1
SDG Number: 03D2057056

Login Number: 3893
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3893-1
SDG Number: 03D2057056

Login Number: 3893
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/20/23 10:42 AM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/1/2023 9:18:19 AM

JOB DESCRIPTION

MCA 151
SDG NUMBER 03D2057056

JOB NUMBER

890-3895-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

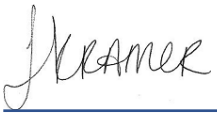
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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2/1/2023 9:18:19 AM

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

Client: Ensolum
Project/Site: MCA 151

Laboratory Job ID: 890-3895-1
SDG: 03D2057056

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Job ID: 890-3895-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3895-1

Receipt
The samples were received on 1/19/2023 11:42 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS30 (890-3895-1), FS31 (890-3895-2), FS32 (890-3895-3), FS33 (890-3895-4), FS34 (890-3895-5), FS35 (890-3895-6), FS36 (890-3895-7) and FS37 (890-3895-8).

GC VOA
Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-44621 and analytical batch 880-44693 were outside control limits. Non-homogeneity is 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: FS33 (890-3895-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-45126 and analytical batch 880-45103 was outside the upper control limits.

Method 8015MOD_NM: The method blank for preparation batch 880-45126 and analytical batch 880-45103 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-45126 and analytical batch 880-45103 was outside control limits. Sample non-homogeneity is suspected.

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 880-44670 and analytical batch 880-44722 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44669 and analytical batch 880-44723 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS30

Lab Sample ID: 890-3895-1
Matrix: Solid
Date Collected: 01/17/23 15:28
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0994	U	0.0994		mg/Kg		01/24/23 11:45	01/26/23 07:26	50
Toluene	**3.37**		0.0994		mg/Kg		01/24/23 11:45	01/26/23 07:26	50
Ethylbenzene	**6.82**		0.0994		mg/Kg		01/24/23 11:45	01/26/23 07:26	50
m-Xylene & p-Xylene	**7.95**		0.199		mg/Kg		01/24/23 11:45	01/26/23 07:26	50
o-Xylene	**3.48**		0.0994		mg/Kg		01/24/23 11:45	01/26/23 07:26	50
Xylenes, Total	**11.4**		0.199		mg/Kg		01/24/23 11:45	01/26/23 07:26	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*01/24/23 11:45*	*01/26/23 07:26*	*50*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*01/24/23 11:45*	*01/26/23 07:26*	*50*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**21.6**		0.199		mg/Kg			01/26/23 12:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**3020**		49.9		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**428**		49.9		mg/Kg		01/31/23 13:05	02/01/23 02:35	1
Diesel Range Organics (Over C10-C28)	**2280**		49.9		mg/Kg		01/31/23 13:05	02/01/23 02:35	1
Oil Range Organics (Over C28-C36)	**309**		49.9		mg/Kg		01/31/23 13:05	02/01/23 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*01/31/23 13:05*	*02/01/23 02:35*	*1*
o-Terphenyl	*110*		*70 - 130*	*01/31/23 13:05*	*02/01/23 02:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**796**		4.97		mg/Kg			01/26/23 04:43	1

Client Sample ID: FS31

Lab Sample ID: 890-3895-2
Matrix: Solid
Date Collected: 01/17/23 15:30
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0998	U	0.0998		mg/Kg		01/24/23 11:45	01/26/23 07:47	50
Toluene	**7.15**		0.0998		mg/Kg		01/24/23 11:45	01/26/23 07:47	50
Ethylbenzene	**11.9**		0.0998		mg/Kg		01/24/23 11:45	01/26/23 07:47	50
m-Xylene & p-Xylene	**13.4**		0.200		mg/Kg		01/24/23 11:45	01/26/23 07:47	50
o-Xylene	**5.81**		0.0998		mg/Kg		01/24/23 11:45	01/26/23 07:47	50
Xylenes, Total	**19.2**		0.200		mg/Kg		01/24/23 11:45	01/26/23 07:47	50

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS31

Lab Sample ID: 890-3895-2
Matrix: Solid
Date Collected: 01/17/23 15:30
Date Received: 01/19/23 11:42
Sample Depth: 4'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	01/24/23 11:45	01/26/23 07:47	50
1,4-Difluorobenzene (Surr)	84		70 - 130	01/24/23 11:45	01/26/23 07:47	50

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	38.3		0.200		mg/Kg			01/26/23 12:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3850		49.9		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	498		49.9		mg/Kg		01/31/23 13:05	02/01/23 02:57	1
Diesel Range Organics (Over C10-C28)	2940		49.9		mg/Kg		01/31/23 13:05	02/01/23 02:57	1
Oil Range Organics (Over C28-C36)	409		49.9		mg/Kg		01/31/23 13:05	02/01/23 02:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	01/31/23 13:05	02/01/23 02:57	1
o-Terphenyl	110		70 - 130	01/31/23 13:05	02/01/23 02:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	745		4.99		mg/Kg			01/26/23 04:49	1

Client Sample ID: FS32

Lab Sample ID: 890-3895-3
Matrix: Solid
Date Collected: 01/17/23 15:35
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0996	U	0.0996		mg/Kg		01/24/23 11:45	01/26/23 08:07	50
Toluene	0.392		0.0996		mg/Kg		01/24/23 11:45	01/26/23 08:07	50
Ethylbenzene	0.767		0.0996		mg/Kg		01/24/23 11:45	01/26/23 08:07	50
m-Xylene & p-Xylene	0.681		0.199		mg/Kg		01/24/23 11:45	01/26/23 08:07	50
o-Xylene	0.351		0.0996		mg/Kg		01/24/23 11:45	01/26/23 08:07	50
Xylenes, Total	1.03		0.199		mg/Kg		01/24/23 11:45	01/26/23 08:07	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	01/24/23 11:45	01/26/23 08:07	50
1,4-Difluorobenzene (Surr)	97		70 - 130	01/24/23 11:45	01/26/23 08:07	50

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	2.19		0.199		mg/Kg			01/26/23 12:01	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS32

Lab Sample ID: 890-3895-3
Matrix: Solid
Date Collected: 01/17/23 15:35
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**246**		50.0		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:05	02/01/23 03:19	1
Diesel Range Organics (Over C10-C28)	**246**		50.0		mg/Kg		01/31/23 13:05	02/01/23 03:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/23 13:05	02/01/23 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/31/23 13:05*	*02/01/23 03:19*	*1*
o-Terphenyl	*88*		*70 - 130*	*01/31/23 13:05*	*02/01/23 03:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2830**		24.8		mg/Kg			01/26/23 04:55	5

Client Sample ID: FS33

Lab Sample ID: 890-3895-4
Matrix: Solid
Date Collected: 01/17/23 15:40
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0199	U	0.0199		mg/Kg		01/26/23 08:45	01/27/23 09:17	10
Toluene	**0.0307**		0.0199		mg/Kg		01/26/23 08:45	01/27/23 09:17	10
Ethylbenzene	<0.0199	U	0.0199		mg/Kg		01/26/23 08:45	01/27/23 09:17	10
m-Xylene & p-Xylene	<0.0398	U	0.0398		mg/Kg		01/26/23 08:45	01/27/23 09:17	10
o-Xylene	**0.0844**		0.0199		mg/Kg		01/26/23 08:45	01/27/23 09:17	10
Xylenes, Total	**0.0844**		0.0398		mg/Kg		01/26/23 08:45	01/27/23 09:17	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*40*	*S1-*	*70 - 130*	*01/26/23 08:45*	*01/27/23 09:17*	*10*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/26/23 08:45*	*01/27/23 09:17*	*10*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.115**		0.0398		mg/Kg			01/27/23 12:07	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**314**		49.9		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:05	02/01/23 03:42	1
Diesel Range Organics (Over C10-C28)	**314**		49.9		mg/Kg		01/31/23 13:05	02/01/23 03:42	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/23 13:05	02/01/23 03:42	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS33

Lab Sample ID: 890-3895-4
Matrix: Solid
Date Collected: 01/17/23 15:40
Date Received: 01/19/23 11:42
Sample Depth: 4'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	01/31/23 13:05	02/01/23 03:42	1
o-Terphenyl	110		70 - 130	01/31/23 13:05	02/01/23 03:42	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2940		24.8	mg/Kg			01/26/23 05:01	5

Client Sample ID: FS34

Lab Sample ID: 890-3895-5
Matrix: Solid
Date Collected: 01/17/23 15:45
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0201	U	0.0201	mg/Kg		01/26/23 08:45	01/27/23 09:37	10
Toluene	<0.0201	U	0.0201	mg/Kg		01/26/23 08:45	01/27/23 09:37	10
Ethylbenzene	0.0542		0.0201	mg/Kg		01/26/23 08:45	01/27/23 09:37	10
m-Xylene & p-Xylene	0.0413		0.0402	mg/Kg		01/26/23 08:45	01/27/23 09:37	10
o-Xylene	0.0663		0.0201	mg/Kg		01/26/23 08:45	01/27/23 09:37	10
Xylenes, Total	0.108		0.0402	mg/Kg		01/26/23 08:45	01/27/23 09:37	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/26/23 08:45	01/27/23 09:37	10
1,4-Difluorobenzene (Surr)	100		70 - 130	01/26/23 08:45	01/27/23 09:37	10

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.162		0.0402	mg/Kg			01/27/23 12:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	351		49.9	mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 13:05	02/01/23 04:04	1
Diesel Range Organics (Over C10-C28)	351		49.9	mg/Kg		01/31/23 13:05	02/01/23 04:04	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 13:05	02/01/23 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	01/31/23 13:05	02/01/23 04:04	1
o-Terphenyl	100		70 - 130	01/31/23 13:05	02/01/23 04:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2930	F1	25.1	mg/Kg			01/26/23 01:02	5

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS35

Lab Sample ID: 890-3895-6
Matrix: Solid
Date Collected: 01/17/23 15:50
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0998	U	0.0998		mg/Kg		01/24/23 11:45	01/26/23 09:08	50
Toluene	**0.110**		0.0998		mg/Kg		01/24/23 11:45	01/26/23 09:08	50
Ethylbenzene	**0.449**		0.0998		mg/Kg		01/24/23 11:45	01/26/23 09:08	50
m-Xylene & p-Xylene	**0.402**		0.200		mg/Kg		01/24/23 11:45	01/26/23 09:08	50
o-Xylene	**0.320**		0.0998		mg/Kg		01/24/23 11:45	01/26/23 09:08	50
Xylenes, Total	**0.722**		0.200		mg/Kg		01/24/23 11:45	01/26/23 09:08	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*01/24/23 11:45*	*01/26/23 09:08*	*50*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/24/23 11:45*	*01/26/23 09:08*	*50*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**1.28**		0.200		mg/Kg			01/26/23 12:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**748**		50.0		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/23 13:05	02/01/23 04:26	1
Diesel Range Organics (Over C10-C28)	**668**		50.0		mg/Kg		01/31/23 13:05	02/01/23 04:26	1
Oil Range Organics (Over C28-C36)	**80.0**		50.0		mg/Kg		01/31/23 13:05	02/01/23 04:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*01/31/23 13:05*	*02/01/23 04:26*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/31/23 13:05*	*02/01/23 04:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2010**		24.9		mg/Kg			01/26/23 01:17	5

Client Sample ID: FS36

Lab Sample ID: 890-3895-7
Matrix: Solid
Date Collected: 01/17/23 15:55
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.101	U	0.101		mg/Kg		01/24/23 11:45	01/26/23 09:29	50
Toluene	**1.18**		0.101		mg/Kg		01/24/23 11:45	01/26/23 09:29	50
Ethylbenzene	**2.14**		0.101		mg/Kg		01/24/23 11:45	01/26/23 09:29	50
m-Xylene & p-Xylene	**2.75**		0.201		mg/Kg		01/24/23 11:45	01/26/23 09:29	50
o-Xylene	**1.33**		0.101		mg/Kg		01/24/23 11:45	01/26/23 09:29	50
Xylenes, Total	**4.08**		0.201		mg/Kg		01/24/23 11:45	01/26/23 09:29	50

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS36

Lab Sample ID: 890-3895-7
Matrix: Solid
Date Collected: 01/17/23 15:55
Date Received: 01/19/23 11:42
Sample Depth: 4'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	01/24/23 11:45	01/26/23 09:29	50
1,4-Difluorobenzene (Surr)	85		70 - 130	01/24/23 11:45	01/26/23 09:29	50

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	7.40		0.201		mg/Kg			01/26/23 12:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1160		50.0		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	136		50.0		mg/Kg		01/31/23 13:05	02/01/23 04:49	1
Diesel Range Organics (Over C10-C28)	907		50.0		mg/Kg		01/31/23 13:05	02/01/23 04:49	1
Oil Range Organics (Over C28-C36)	120		50.0		mg/Kg		01/31/23 13:05	02/01/23 04:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	01/31/23 13:05	02/01/23 04:49	1
o-Terphenyl	100		70 - 130	01/31/23 13:05	02/01/23 04:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1750		25.0		mg/Kg			01/26/23 01:21	5

Client Sample ID: FS37

Lab Sample ID: 890-3895-8
Matrix: Solid
Date Collected: 01/17/23 16:00
Date Received: 01/19/23 11:42
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0990	U	0.0990		mg/Kg		01/24/23 11:45	01/26/23 09:49	50
Toluene	<0.0990	U	0.0990		mg/Kg		01/24/23 11:45	01/26/23 09:49	50
Ethylbenzene	0.341		0.0990		mg/Kg		01/24/23 11:45	01/26/23 09:49	50
m-Xylene & p-Xylene	0.444		0.198		mg/Kg		01/24/23 11:45	01/26/23 09:49	50
o-Xylene	0.287		0.0990		mg/Kg		01/24/23 11:45	01/26/23 09:49	50
Xylenes, Total	0.731		0.198		mg/Kg		01/24/23 11:45	01/26/23 09:49	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	01/24/23 11:45	01/26/23 09:49	50
1,4-Difluorobenzene (Surr)	102		70 - 130	01/24/23 11:45	01/26/23 09:49	50

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.07		0.198		mg/Kg			01/26/23 12:01	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS37

Date Collected: 01/17/23 16:00
Date Received: 01/19/23 11:42
Sample Depth: 4'

Lab Sample ID: 890-3895-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**718**		49.9		mg/Kg			02/01/23 10:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/23 13:05	02/01/23 05:11	1
Diesel Range Organics (Over C10-C28)	**639**		49.9		mg/Kg		01/31/23 13:05	02/01/23 05:11	1
Oil Range Organics (Over C28-C36)	**78.8**		49.9		mg/Kg		01/31/23 13:05	02/01/23 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*01/31/23 13:05*	*02/01/23 05:11*	*1*
o-Terphenyl	*114*		*70 - 130*	*01/31/23 13:05*	*02/01/23 05:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2250**		25.3		mg/Kg			01/26/23 01:26	5

Surrogate Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-23830-A-1-E MS	Matrix Spike	101	107
880-23830-A-1-F MSD	Matrix Spike Duplicate	102	111
880-24118-A-21-D MS	Matrix Spike	104	113
880-24118-A-21-E MSD	Matrix Spike Duplicate	98	111
890-3895-1	FS30	87	74
890-3895-2	FS31	92	84
890-3895-3	FS32	96	97
890-3895-4	FS33	40 S1-	83
890-3895-5	FS34	75	100
890-3895-6	FS35	93	97
890-3895-7	FS36	89	85
890-3895-8	FS37	90	102
LCS 880-44621/1-A	Lab Control Sample	92	108
LCS 880-44798/1-A	Lab Control Sample	95	110
LCSD 880-44621/2-A	Lab Control Sample Dup	99	112
LCSD 880-44798/2-A	Lab Control Sample Dup	101	107
MB 880-44621/5-A	Method Blank	101	107
MB 880-44700/5-A	Method Blank	103	111
MB 880-44727/5-A	Method Blank	100	108
MB 880-44798/5-A	Method Blank	106	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3893-A-6-D MS	Matrix Spike	81	75
890-3893-A-6-E MSD	Matrix Spike Duplicate	98	94
890-3895-1	FS30	107	110
890-3895-2	FS31	105	110
890-3895-3	FS32	80	88
890-3895-4	FS33	100	110
890-3895-5	FS34	93	100
890-3895-6	FS35	87	96
890-3895-7	FS36	92	100
890-3895-8	FS37	104	114
LCS 880-45126/2-A	Lab Control Sample	76	87
LCSD 880-45126/3-A	Lab Control Sample Dup	84	90
MB 880-45126/1-A	Method Blank	138 S1+	161 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44621/5-A
Matrix: Solid
Analysis Batch: 44693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44621

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:45	01/26/23 01:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:45	01/26/23 01:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:45	01/26/23 01:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/23 11:45	01/26/23 01:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 11:45	01/26/23 01:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/23 11:45	01/26/23 01:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/24/23 11:45*	*01/26/23 01:23*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/24/23 11:45*	*01/26/23 01:23*	*1*

Lab Sample ID: LCS 880-44621/1-A
Matrix: Solid
Analysis Batch: 44693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44621

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08797		mg/Kg		88	70 - 130		
Toluene			0.100	0.08489		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.08134		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1679		mg/Kg		84	70 - 130		
o-Xylene			0.100	0.08110		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-44621/2-A
Matrix: Solid
Analysis Batch: 44693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44621

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1011		mg/Kg		101	70 - 130	14	35
Toluene			0.100	0.09706		mg/Kg		97	70 - 130	13	35
Ethylbenzene			0.100	0.09486		mg/Kg		95	70 - 130	15	35
m-Xylene & p-Xylene			0.200	0.1970		mg/Kg		99	70 - 130	16	35
o-Xylene			0.100	0.09477		mg/Kg		95	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-23830-A-1-E MS
Matrix: Solid
Analysis Batch: 44693

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44621

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0998	0.07078		mg/Kg		71	70 - 130		
Toluene	<0.00200	U	0.0998	0.06942		mg/Kg		70	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

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

Lab Sample ID: 880-23830-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44693 — **Prep Batch: 44621**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0998	0.06709	F1	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1411		mg/Kg		71	70 - 130
o-Xylene	<0.00200	U F1	0.0998	0.06898	F1	mg/Kg		69	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-23830-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44693 — **Prep Batch: 44621**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.07641		mg/Kg		77	70 - 130	8	35
Toluene	<0.00200	U	0.0990	0.07485		mg/Kg		76	70 - 130	8	35
Ethylbenzene	<0.00200	U F1	0.0990	0.07368		mg/Kg		74	70 - 130	9	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1542		mg/Kg		78	70 - 130	9	35
o-Xylene	<0.00200	U F1	0.0990	0.07434		mg/Kg		75	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: MB 880-44700/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44693 — **Prep Batch: 44700**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/23 09:03	01/25/23 12:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/23 09:03	01/25/23 12:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/23 09:03	01/25/23 12:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/23 09:03	01/25/23 12:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/23 09:03	01/25/23 12:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/25/23 09:03	01/25/23 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/25/23 09:03*	*01/25/23 12:59*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/25/23 09:03*	*01/25/23 12:59*	*1*

Lab Sample ID: MB 880-44727/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44779 — **Prep Batch: 44727**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/23 13:19	01/26/23 13:35	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

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

Lab Sample ID: MB 880-44727/5-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44727

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/23 13:19	01/26/23 13:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/25/23 13:19*	*01/26/23 13:35*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*01/25/23 13:19*	*01/26/23 13:35*	*1*

Lab Sample ID: MB 880-44798/5-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44798

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/23 08:45	01/27/23 01:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/26/23 08:45	01/27/23 01:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/26/23 08:45*	*01/27/23 01:10*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*01/26/23 08:45*	*01/27/23 01:10*	*1*

Lab Sample ID: LCS 880-44798/1-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09257		mg/Kg		93	70 - 130		
Toluene			0.100	0.08901		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.08639		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1801		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.08711		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-44798/2-A
Matrix: Solid
Analysis Batch: 44779

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08544		mg/Kg		85	70 - 130	8	35
Toluene			0.100	0.09543		mg/Kg		95	70 - 130	7	35
Ethylbenzene			0.100	0.09226		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1929		mg/Kg		96	70 - 130	7	35
o-Xylene			0.100	0.09416		mg/Kg		94	70 - 130	8	35

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 880-24118-A-21-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44779 — **Prep Batch: 44798**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.08526		mg/Kg		86	70 - 130
Toluene	<0.00200	U	0.0996	0.08255		mg/Kg		83	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.08046		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1709		mg/Kg		86	70 - 130
o-Xylene	<0.00200	U	0.0996	0.08321		mg/Kg		83	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 880-24118-A-21-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44779 — **Prep Batch: 44798**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.08939		mg/Kg		90	70 - 130	5	35
Toluene	<0.00200	U	0.0990	0.08494		mg/Kg		86	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.0990	0.08175		mg/Kg		83	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1714		mg/Kg		87	70 - 130	0	35
o-Xylene	<0.00200	U	0.0990	0.08289		mg/Kg		83	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

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

Lab Sample ID: MB 880-45126/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45103 — **Prep Batch: 45126**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 13:05	01/31/23 19:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/23 13:05	01/31/23 19:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 13:05	01/31/23 19:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	138	S1+	70 - 130	01/31/23 13:05	01/31/23 19:55	1
o-Terphenyl	161	S1+	70 - 130	01/31/23 13:05	01/31/23 19:55	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

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

Lab Sample ID: LCS 880-45126/2-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45126

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	823.4		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			999	808.2		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: LCSD 880-45126/3-A
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45126

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	929.8		mg/Kg		93	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			999	935.2		mg/Kg		94	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: 890-3893-A-6-D MS
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	804.1		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F2	1000	881.9		mg/Kg		85	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*81*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Lab Sample ID: 890-3893-A-6-E MSD
Matrix: Solid
Analysis Batch: 45103

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45126

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	902.3		mg/Kg		88	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	<50.0	U F2	998	1097	F2	mg/Kg		107	70 - 130	22	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

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

Lab Sample ID: 890-3893-A-6-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45103 — **Prep Batch: 45126**

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44670/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44722

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/26/23 01:57	1

Lab Sample ID: LCS 880-44670/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44722

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	266.9		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-44670/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44722

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	267.0		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-3894-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	34.8	F1	252	316.0	F1	mg/Kg		112	90 - 110		

Lab Sample ID: 890-3894-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	34.8	F1	252	317.0	F1	mg/Kg		112	90 - 110	0	20

Lab Sample ID: MB 880-44669/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44723

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/26/23 00:48	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-44669/2-A
Matrix: Solid
Analysis Batch: 44723

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	272.1		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-44669/3-A
Matrix: Solid
Analysis Batch: 44723

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	259.1		mg/Kg		104	90 - 110	5	20

Lab Sample ID: 890-3895-5 MS
Matrix: Solid
Analysis Batch: 44723

Client Sample ID: FS34
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2930	F1	1260	4557	F1	mg/Kg		129	90 - 110		

Lab Sample ID: 890-3895-5 MSD
Matrix: Solid
Analysis Batch: 44723

Client Sample ID: FS34
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2930	F1	1260	4423	F1	mg/Kg		119	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

GC VOA

Prep Batch: 44621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Total/NA	Solid	5035	
890-3895-2	FS31	Total/NA	Solid	5035	
890-3895-3	FS32	Total/NA	Solid	5035	
890-3895-6	FS35	Total/NA	Solid	5035	
890-3895-7	FS36	Total/NA	Solid	5035	
890-3895-8	FS37	Total/NA	Solid	5035	
MB 880-44621/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44621/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44621/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23830-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-23830-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 44693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Total/NA	Solid	8021B	44621
890-3895-2	FS31	Total/NA	Solid	8021B	44621
890-3895-3	FS32	Total/NA	Solid	8021B	44621
890-3895-6	FS35	Total/NA	Solid	8021B	44621
890-3895-7	FS36	Total/NA	Solid	8021B	44621
890-3895-8	FS37	Total/NA	Solid	8021B	44621
MB 880-44621/5-A	Method Blank	Total/NA	Solid	8021B	44621
MB 880-44700/5-A	Method Blank	Total/NA	Solid	8021B	44700
LCS 880-44621/1-A	Lab Control Sample	Total/NA	Solid	8021B	44621
LCSD 880-44621/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44621
880-23830-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	44621
880-23830-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44621

Prep Batch: 44700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44700/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 44727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44727/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-4	FS33	Total/NA	Solid	8021B	44798
890-3895-5	FS34	Total/NA	Solid	8021B	44798
MB 880-44727/5-A	Method Blank	Total/NA	Solid	8021B	44727
MB 880-44798/5-A	Method Blank	Total/NA	Solid	8021B	44798
LCS 880-44798/1-A	Lab Control Sample	Total/NA	Solid	8021B	44798
LCSD 880-44798/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44798
880-24118-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	44798
880-24118-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44798

Prep Batch: 44798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-4	FS33	Total/NA	Solid	5035	
890-3895-5	FS34	Total/NA	Solid	5035	
MB 880-44798/5-A	Method Blank	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

GC VOA (Continued)

Prep Batch: 44798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-44798/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44798/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24118-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
880-24118-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 44817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Total/NA	Solid	Total BTEX	
890-3895-2	FS31	Total/NA	Solid	Total BTEX	
890-3895-3	FS32	Total/NA	Solid	Total BTEX	
890-3895-4	FS33	Total/NA	Solid	Total BTEX	
890-3895-5	FS34	Total/NA	Solid	Total BTEX	
890-3895-6	FS35	Total/NA	Solid	Total BTEX	
890-3895-7	FS36	Total/NA	Solid	Total BTEX	
890-3895-8	FS37	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 45103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Total/NA	Solid	8015B NM	45126
890-3895-2	FS31	Total/NA	Solid	8015B NM	45126
890-3895-3	FS32	Total/NA	Solid	8015B NM	45126
890-3895-4	FS33	Total/NA	Solid	8015B NM	45126
890-3895-5	FS34	Total/NA	Solid	8015B NM	45126
890-3895-6	FS35	Total/NA	Solid	8015B NM	45126
890-3895-7	FS36	Total/NA	Solid	8015B NM	45126
890-3895-8	FS37	Total/NA	Solid	8015B NM	45126
MB 880-45126/1-A	Method Blank	Total/NA	Solid	8015B NM	45126
LCS 880-45126/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45126
LCSD 880-45126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45126
890-3893-A-6-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45126
890-3893-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45126

Prep Batch: 45126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Total/NA	Solid	8015NM Prep	
890-3895-2	FS31	Total/NA	Solid	8015NM Prep	
890-3895-3	FS32	Total/NA	Solid	8015NM Prep	
890-3895-4	FS33	Total/NA	Solid	8015NM Prep	
890-3895-5	FS34	Total/NA	Solid	8015NM Prep	
890-3895-6	FS35	Total/NA	Solid	8015NM Prep	
890-3895-7	FS36	Total/NA	Solid	8015NM Prep	
890-3895-8	FS37	Total/NA	Solid	8015NM Prep	
MB 880-45126/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45126/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45126/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3893-A-6-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3893-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

GC Semi VOA

Analysis Batch: 45182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Total/NA	Solid	8015 NM	
890-3895-2	FS31	Total/NA	Solid	8015 NM	
890-3895-3	FS32	Total/NA	Solid	8015 NM	
890-3895-4	FS33	Total/NA	Solid	8015 NM	
890-3895-5	FS34	Total/NA	Solid	8015 NM	
890-3895-6	FS35	Total/NA	Solid	8015 NM	
890-3895-7	FS36	Total/NA	Solid	8015 NM	
890-3895-8	FS37	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-5	FS34	Soluble	Solid	DI Leach	
890-3895-6	FS35	Soluble	Solid	DI Leach	
890-3895-7	FS36	Soluble	Solid	DI Leach	
890-3895-8	FS37	Soluble	Solid	DI Leach	
MB 880-44669/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44669/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44669/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3895-5 MS	FS34	Soluble	Solid	DI Leach	
890-3895-5 MSD	FS34	Soluble	Solid	DI Leach	

Leach Batch: 44670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Soluble	Solid	DI Leach	
890-3895-2	FS31	Soluble	Solid	DI Leach	
890-3895-3	FS32	Soluble	Solid	DI Leach	
890-3895-4	FS33	Soluble	Solid	DI Leach	
MB 880-44670/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44670/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44670/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3894-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3894-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 44722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-1	FS30	Soluble	Solid	300.0	44670
890-3895-2	FS31	Soluble	Solid	300.0	44670
890-3895-3	FS32	Soluble	Solid	300.0	44670
890-3895-4	FS33	Soluble	Solid	300.0	44670
MB 880-44670/1-A	Method Blank	Soluble	Solid	300.0	44670
LCS 880-44670/2-A	Lab Control Sample	Soluble	Solid	300.0	44670
LCSD 880-44670/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44670
890-3894-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	44670
890-3894-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44670

Analysis Batch: 44723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-5	FS34	Soluble	Solid	300.0	44669
890-3895-6	FS35	Soluble	Solid	300.0	44669

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

HPLC/IC (Continued)

Analysis Batch: 44723 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3895-7	FS36	Soluble	Solid	300.0	44669
890-3895-8	FS37	Soluble	Solid	300.0	44669
MB 880-44669/1-A	Method Blank	Soluble	Solid	300.0	44669
LCS 880-44669/2-A	Lab Control Sample	Soluble	Solid	300.0	44669
LCSD 880-44669/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44669
890-3895-5 MS	FS34	Soluble	Solid	300.0	44669
890-3895-5 MSD	FS34	Soluble	Solid	300.0	44669

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS30

Lab Sample ID: 890-3895-1

Date Collected: 01/17/23 15:28
Matrix: Solid
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	44621	01/24/23 11:45	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	44693	01/26/23 07:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/26/23 12:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 02:35	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 04:43	CH	EET MID

Client Sample ID: FS31

Lab Sample ID: 890-3895-2

Date Collected: 01/17/23 15:30
Matrix: Solid
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44621	01/24/23 11:45	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	44693	01/26/23 07:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/26/23 12:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 02:57	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		1			44722	01/26/23 04:49	CH	EET MID

Client Sample ID: FS32

Lab Sample ID: 890-3895-3

Date Collected: 01/17/23 15:35
Matrix: Solid
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44621	01/24/23 11:45	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	44693	01/26/23 08:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/26/23 12:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 03:19	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		5			44722	01/26/23 04:55	CH	EET MID

Client Sample ID: FS33

Lab Sample ID: 890-3895-4

Date Collected: 01/17/23 15:40
Matrix: Solid
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	44798	01/26/23 08:45	MNR	EET MID
Total/NA	Analysis	8021B		10	5 mL	5 mL	44779	01/27/23 09:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/27/23 12:07	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS33

Lab Sample ID: 890-3895-4
Matrix: Solid
Date Collected: 01/17/23 15:40
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 03:42	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44670	01/24/23 15:31	KS	EET MID
Soluble	Analysis	300.0		5			44722	01/26/23 05:01	CH	EET MID

Client Sample ID: FS34

Lab Sample ID: 890-3895-5
Matrix: Solid
Date Collected: 01/17/23 15:45
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	44798	01/26/23 08:45	MNR	EET MID
Total/NA	Analysis	8021B		10	5 mL	5 mL	44779	01/27/23 09:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/27/23 12:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 04:04	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44669	01/24/23 15:30	KS	EET MID
Soluble	Analysis	300.0		5			44723	01/26/23 01:02	CH	EET MID

Client Sample ID: FS35

Lab Sample ID: 890-3895-6
Matrix: Solid
Date Collected: 01/17/23 15:50
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	44621	01/24/23 11:45	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	44693	01/26/23 09:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/26/23 12:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 04:26	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44669	01/24/23 15:30	KS	EET MID
Soluble	Analysis	300.0		5			44723	01/26/23 01:17	CH	EET MID

Client Sample ID: FS36

Lab Sample ID: 890-3895-7
Matrix: Solid
Date Collected: 01/17/23 15:55
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44621	01/24/23 11:45	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	44693	01/26/23 09:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/26/23 12:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 04:49	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Client Sample ID: FS36

Lab Sample ID: 890-3895-7
Matrix: Solid
Date Collected: 01/17/23 15:55
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	44669	01/24/23 15:30	KS	EET MID
Soluble	Analysis	300.0		5			44723	01/26/23 01:21	CH	EET MID

Client Sample ID: FS37

Lab Sample ID: 890-3895-8
Matrix: Solid
Date Collected: 01/17/23 16:00
Date Received: 01/19/23 11:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	44621	01/24/23 11:45	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	44693	01/26/23 09:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44817	01/26/23 12:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			45182	02/01/23 10:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45126	01/31/23 13:05	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45103	02/01/23 05:11	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44669	01/24/23 15:30	KS	EET MID
Soluble	Analysis	300.0		5			44723	01/26/23 01:26	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: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-3895-1
SDG: 03D2057056

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3895-1	FS30	Solid	01/17/23 15:28	01/19/23 11:42	4'
890-3895-2	FS31	Solid	01/17/23 15:30	01/19/23 11:42	4'
890-3895-3	FS32	Solid	01/17/23 15:35	01/19/23 11:42	4'
890-3895-4	FS33	Solid	01/17/23 15:40	01/19/23 11:42	4'
890-3895-5	FS34	Solid	01/17/23 15:45	01/19/23 11:42	4'
890-3895-6	FS35	Solid	01/17/23 15:50	01/19/23 11:42	4'
890-3895-7	FS36	Solid	01/17/23 15:55	01/19/23 11:42	4'
890-3895-8	FS37	Solid	01/17/23 16:00	01/19/23 11:42	4'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com; jadams@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 151	Turn Around	
Project Number:	03D2057056	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	NM007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.6	
Total Containers:		Corrected Temperature:	5.4	

ANALYSIS REQUEST

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS30	S	1/17/2023	15:28	4'	Comp	1		x	x	x
FS31	S	1/17/2023	15:30	4'	Comp	1		x	x	x
FS32	S	1/17/2023	15:35	4'	Comp	1		x	x	x
FS33	S	1/17/2023	15:40	4'	Comp	1		x	x	x
FS34	S	1/17/2023	15:45	4'	Comp	1		x	x	x
FS35	S	1/17/2023	15:50	4'	Comp	1		x	x	x
FS36	S	1/17/2023	15:55	4'	Comp	1		x	x	x
FS37	S	1/17/2023	16:00	4'	Comp	1		x	x	x

890-3895 Chain of Custody

Sample Comments

Incident Number

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1-19-23 1140	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3895-1
SDG Number: 03D2057056

Login Number: 3895
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3895-1
SDG Number: 03D2057056

Login Number: 3895
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/20/23 10:42 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/28/2023 2:39:17 PM

JOB DESCRIPTION

MCA 151
SDG NUMBER 03D2057056

JOB NUMBER

890-4150-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

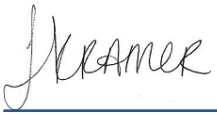
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: MCA 151

Laboratory Job ID: 890-4150-1
SDG: 03D2057056

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Job ID: 890-4150-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4150-1

Receipt
The samples were received on 2/20/2023 8:41 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 5.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS25 (890-4150-1), FS26 (890-4150-2), FS30 (890-4150-3), FS31 (890-4150-4), FS36 (890-4150-5), SW04 (890-4150-6) and SW09 (890-4150-7).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-47310 and analytical batch 880-47287 was outside the control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-47146 and analytical batch 880-47130 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 880-46719 and 880-46719 and analytical batch 880-47190 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: FS25

Lab Sample ID: 890-4150-1
Matrix: Solid
Date Collected: 02/17/23 11:00
Date Received: 02/20/23 08:41
Sample Depth: 4.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 16:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 16:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 16:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/27/23 12:05	02/27/23 16:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 16:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/27/23 12:05	02/27/23 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*02/27/23 12:05*	*02/27/23 16:05*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*02/27/23 12:05*	*02/27/23 16:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**73.2**		49.8		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 14:42	1
Diesel Range Organics (Over C10-C28)	**73.2**		49.8		mg/Kg		02/24/23 09:54	02/24/23 14:42	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/24/23 09:54*	*02/24/23 14:42*	*1*
o-Terphenyl	*95*		*70 - 130*	*02/24/23 09:54*	*02/24/23 14:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.7**		4.95		mg/Kg			02/24/23 13:29	1

Client Sample ID: FS26

Lab Sample ID: 890-4150-2
Matrix: Solid
Date Collected: 02/17/23 14:35
Date Received: 02/20/23 08:41
Sample Depth: 9'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 16:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 16:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 16:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/27/23 12:05	02/27/23 16:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 16:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/27/23 12:05	02/27/23 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*02/27/23 12:05*	*02/27/23 16:31*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: FS26

Lab Sample ID: 890-4150-2
Matrix: Solid
Date Collected: 02/17/23 14:35
Date Received: 02/20/23 08:41
Sample Depth: 9'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/27/23 12:05*	*02/27/23 16:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/24/23 09:54	02/24/23 15:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/24/23 09:54	02/24/23 15:03	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/24/23 09:54	02/24/23 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*02/24/23 09:54*	*02/24/23 15:03*	*1*
o-Terphenyl	*115*		*70 - 130*	*02/24/23 09:54*	*02/24/23 15:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**140**		4.95	mg/Kg			02/24/23 13:34	1

Client Sample ID: FS30

Lab Sample ID: 890-4150-3
Matrix: Solid
Date Collected: 02/17/23 14:40
Date Received: 02/20/23 08:41
Sample Depth: 9'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/27/23 12:05	02/27/23 16:57	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/27/23 12:05	02/27/23 16:57	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/27/23 12:05	02/27/23 16:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/27/23 12:05	02/27/23 16:57	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/27/23 12:05	02/27/23 16:57	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/27/23 12:05	02/27/23 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/27/23 12:05*	*02/27/23 16:57*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/27/23 12:05*	*02/27/23 16:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/27/23 12:20	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: FS30

Lab Sample ID: 890-4150-3
Matrix: Solid
Date Collected: 02/17/23 14:40
Date Received: 02/20/23 08:41
Sample Depth: 9'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 15:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 15:25	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/24/23 09:54*	*02/24/23 15:25*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/24/23 09:54*	*02/24/23 15:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.1**		4.97		mg/Kg			02/24/23 13:39	1

Client Sample ID: FS31

Lab Sample ID: 890-4150-4
Matrix: Solid
Date Collected: 02/17/23 15:40
Date Received: 02/20/23 08:41
Sample Depth: 4.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/27/23 12:05	02/27/23 17:23	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/27/23 12:05	02/27/23 17:23	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/27/23 12:05	02/27/23 17:23	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/27/23 12:05	02/27/23 17:23	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/27/23 12:05	02/27/23 17:23	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/27/23 12:05	02/27/23 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*02/27/23 12:05*	*02/27/23 17:23*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/27/23 12:05*	*02/27/23 17:23*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 15:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 15:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*02/24/23 09:54*	*02/24/23 15:47*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/24/23 09:54*	*02/24/23 15:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: FS31

Lab Sample ID: 890-4150-4
Matrix: Solid
Date Collected: 02/17/23 15:40
Date Received: 02/20/23 08:41
Sample Depth: 4.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4480		50.4		mg/Kg			02/24/23 13:43	10

Client Sample ID: FS36

Lab Sample ID: 890-4150-5
Matrix: Solid
Date Collected: 02/17/23 15:10
Date Received: 02/20/23 08:41
Sample Depth: 5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 17:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 17:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 17:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/27/23 12:05	02/27/23 17:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 17:49	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/27/23 12:05	02/27/23 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/27/23 12:05*	*02/27/23 17:49*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/27/23 12:05*	*02/27/23 17:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 16:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 16:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*02/24/23 09:54*	*02/24/23 16:09*	*1*
o-Terphenyl	*117*		*70 - 130*	*02/24/23 09:54*	*02/24/23 16:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3840		49.9		mg/Kg			02/24/23 13:48	10

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: SW04

Lab Sample ID: 890-4150-6
Matrix: Solid
Date Collected: 02/17/23 15:05
Date Received: 02/20/23 08:41
Sample Depth: 2-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/27/23 12:05	02/27/23 18:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/27/23 12:05	02/27/23 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*02/27/23 12:05*	*02/27/23 18:14*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/27/23 12:05*	*02/27/23 18:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 16:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 16:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*02/24/23 09:54*	*02/24/23 16:53*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/24/23 09:54*	*02/24/23 16:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.8**		4.96		mg/Kg			02/24/23 13:53	1

Client Sample ID: SW09

Lab Sample ID: 890-4150-7
Matrix: Solid
Date Collected: 02/17/23 15:35
Date Received: 02/20/23 08:41
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/27/23 12:05	02/27/23 18:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/27/23 12:05	02/27/23 18:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/27/23 12:05	02/27/23 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/27/23 12:05*	*02/27/23 18:41*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: SW09

Date Collected: 02/17/23 15:35
Date Received: 02/20/23 08:41
Sample Depth: 0-4'

Lab Sample ID: 890-4150-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/27/23 12:05*	*02/27/23 18:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 17:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 17:15	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/24/23 09:54*	*02/24/23 17:15*	*1*
o-Terphenyl	*93*		*70 - 130*	*02/24/23 09:54*	*02/24/23 17:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**184**		4.96		mg/Kg			02/24/23 13:57	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4135-A-1-F MS	Matrix Spike	94	104
890-4135-A-1-G MSD	Matrix Spike Duplicate	94	112
890-4150-1	FS25	121	112
890-4150-2	FS26	119	95
890-4150-3	FS30	123	104
890-4150-4	FS31	122	113
890-4150-5	FS36	123	101
890-4150-6	SW04	94	102
890-4150-7	SW09	108	108
LCS 880-47310/1-A	Lab Control Sample	112	116
LCSD 880-47310/2-A	Lab Control Sample Dup	107	115
MB 880-47310/5-A	Method Blank	67 S1-	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4147-A-1-G MS	Matrix Spike	118	99
890-4147-A-1-H MSD	Matrix Spike Duplicate	115	99
890-4150-1	FS25	95	95
890-4150-2	FS26	124	115
890-4150-3	FS30	101	100
890-4150-4	FS31	105	105
890-4150-5	FS36	124	117
890-4150-6	SW04	111	105
890-4150-7	SW09	96	93
LCS 880-47146/2-A	Lab Control Sample	111	99
LCSD 880-47146/3-A	Lab Control Sample Dup	114	104
MB 880-47146/1-A	Method Blank	139 S1+	134 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-47310/5-A
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47310

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 14:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 14:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 14:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/27/23 12:05	02/27/23 14:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/27/23 12:05	02/27/23 14:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/27/23 12:05	02/27/23 14:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*02/27/23 12:05*	*02/27/23 14:21*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/27/23 12:05*	*02/27/23 14:21*	*1*

Lab Sample ID: LCS 880-47310/1-A
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47310

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1116		mg/Kg		112	70 - 130		
Toluene			0.100	0.1199		mg/Kg		120	70 - 130		
Ethylbenzene			0.100	0.1156		mg/Kg		116	70 - 130		
m-Xylene & p-Xylene			0.200	0.2342		mg/Kg		117	70 - 130		
o-Xylene			0.100	0.1224		mg/Kg		122	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-47310/2-A
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47310

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1297		mg/Kg		130	70 - 130	15	35
Toluene			0.100	0.1198		mg/Kg		120	70 - 130	0	35
Ethylbenzene			0.100	0.1198		mg/Kg		120	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2430		mg/Kg		122	70 - 130	4	35
o-Xylene			0.100	0.1212		mg/Kg		121	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: 890-4135-A-1-F MS
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 47310

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00198	U	0.0998	0.08363		mg/Kg		84	70 - 130		
Toluene	<0.00198	U	0.0998	0.07891		mg/Kg		79	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

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

Lab Sample ID: 890-4135-A-1-F MS
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 47310

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U	0.0998	0.07883		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1596		mg/Kg		80	70 - 130
o-Xylene	<0.00198	U	0.0998	0.08053		mg/Kg		81	70 - 130

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

Lab Sample ID: 890-4135-A-1-G MSD
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 47310

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.09210		mg/Kg		92	70 - 130	10	35
Toluene	<0.00198	U	0.100	0.08926		mg/Kg		89	70 - 130	12	35
Ethylbenzene	<0.00198	U	0.100	0.08939		mg/Kg		89	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.1793		mg/Kg		89	70 - 130	12	35
o-Xylene	<0.00198	U	0.100	0.09125		mg/Kg		91	70 - 130	12	35

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

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

Lab Sample ID: MB 880-47146/1-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47146

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/23 08:14	02/24/23 08:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/23 08:14	02/24/23 08:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/23 08:14	02/24/23 08:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*139*	*S1+*	*70 - 130*	*02/24/23 08:14*	*02/24/23 08:40*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*02/24/23 08:14*	*02/24/23 08:40*	*1*

Lab Sample ID: LCS 880-47146/2-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47146

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	915.9		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)			1000	925.7		mg/Kg		93	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

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

Lab Sample ID: LCS 880-47146/2-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47146

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-47146/3-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47146

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	972.6		mg/Kg		97	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	957.1		mg/Kg		96	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 890-4147-A-1-G MS
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 47146

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1106		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	942.9		mg/Kg		92	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-4147-A-1-H MSD
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 47146

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1077		mg/Kg		108	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	938.5		mg/Kg		92	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	99		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46719/1-A
Matrix: Solid
Analysis Batch: 47190

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/24/23 11:09	1

Lab Sample ID: LCS 880-46719/2-A
Matrix: Solid
Analysis Batch: 47190

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	246.9		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-46719/3-A
Matrix: Solid
Analysis Batch: 47190

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	243.3		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 880-24919-A-1-D MS
Matrix: Solid
Analysis Batch: 47190

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	264	F1	249	554.8	F1	mg/Kg		117	90 - 110		

Lab Sample ID: 880-24919-A-1-E MSD
Matrix: Solid
Analysis Batch: 47190

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	264	F1	249	554.5	F1	mg/Kg		117	90 - 110	0	20

Lab Sample ID: 880-24921-A-5-C MS
Matrix: Solid
Analysis Batch: 47190

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	5080	F1	2490	7687		mg/Kg		105	90 - 110		

Lab Sample ID: 880-24921-A-5-D MSD
Matrix: Solid
Analysis Batch: 47190

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5080	F1	2490	7858	F1	mg/Kg		112	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

GC VOA

Analysis Batch: 47287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Total/NA	Solid	8021B	47310
890-4150-2	FS26	Total/NA	Solid	8021B	47310
890-4150-3	FS30	Total/NA	Solid	8021B	47310
890-4150-4	FS31	Total/NA	Solid	8021B	47310
890-4150-5	FS36	Total/NA	Solid	8021B	47310
890-4150-6	SW04	Total/NA	Solid	8021B	47310
890-4150-7	SW09	Total/NA	Solid	8021B	47310
MB 880-47310/5-A	Method Blank	Total/NA	Solid	8021B	47310
LCS 880-47310/1-A	Lab Control Sample	Total/NA	Solid	8021B	47310
LCSD 880-47310/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47310
890-4135-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	47310
890-4135-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	47310

Prep Batch: 47310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Total/NA	Solid	5035	
890-4150-2	FS26	Total/NA	Solid	5035	
890-4150-3	FS30	Total/NA	Solid	5035	
890-4150-4	FS31	Total/NA	Solid	5035	
890-4150-5	FS36	Total/NA	Solid	5035	
890-4150-6	SW04	Total/NA	Solid	5035	
890-4150-7	SW09	Total/NA	Solid	5035	
MB 880-47310/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47310/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47310/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4135-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-4135-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 47453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Total/NA	Solid	Total BTEX	
890-4150-2	FS26	Total/NA	Solid	Total BTEX	
890-4150-3	FS30	Total/NA	Solid	Total BTEX	
890-4150-4	FS31	Total/NA	Solid	Total BTEX	
890-4150-5	FS36	Total/NA	Solid	Total BTEX	
890-4150-6	SW04	Total/NA	Solid	Total BTEX	
890-4150-7	SW09	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 47130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Total/NA	Solid	8015B NM	47146
890-4150-2	FS26	Total/NA	Solid	8015B NM	47146
890-4150-3	FS30	Total/NA	Solid	8015B NM	47146
890-4150-4	FS31	Total/NA	Solid	8015B NM	47146
890-4150-5	FS36	Total/NA	Solid	8015B NM	47146
890-4150-6	SW04	Total/NA	Solid	8015B NM	47146
890-4150-7	SW09	Total/NA	Solid	8015B NM	47146
MB 880-47146/1-A	Method Blank	Total/NA	Solid	8015B NM	47146
LCS 880-47146/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47146

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

GC Semi VOA (Continued)

Analysis Batch: 47130 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-47146/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47146
890-4147-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	47146
890-4147-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47146

Prep Batch: 47146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Total/NA	Solid	8015NM Prep	
890-4150-2	FS26	Total/NA	Solid	8015NM Prep	
890-4150-3	FS30	Total/NA	Solid	8015NM Prep	
890-4150-4	FS31	Total/NA	Solid	8015NM Prep	
890-4150-5	FS36	Total/NA	Solid	8015NM Prep	
890-4150-6	SW04	Total/NA	Solid	8015NM Prep	
890-4150-7	SW09	Total/NA	Solid	8015NM Prep	
MB 880-47146/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47146/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47146/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4147-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4147-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Total/NA	Solid	8015 NM	
890-4150-2	FS26	Total/NA	Solid	8015 NM	
890-4150-3	FS30	Total/NA	Solid	8015 NM	
890-4150-4	FS31	Total/NA	Solid	8015 NM	
890-4150-5	FS36	Total/NA	Solid	8015 NM	
890-4150-6	SW04	Total/NA	Solid	8015 NM	
890-4150-7	SW09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Soluble	Solid	DI Leach	
890-4150-2	FS26	Soluble	Solid	DI Leach	
890-4150-3	FS30	Soluble	Solid	DI Leach	
890-4150-4	FS31	Soluble	Solid	DI Leach	
890-4150-5	FS36	Soluble	Solid	DI Leach	
890-4150-6	SW04	Soluble	Solid	DI Leach	
890-4150-7	SW09	Soluble	Solid	DI Leach	
MB 880-46719/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46719/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46719/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-24919-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-24919-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-24921-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-24921-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 47190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-1	FS25	Soluble	Solid	300.0	46719

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

HPLC/IC (Continued)

Analysis Batch: 47190 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4150-2	FS26	Soluble	Solid	300.0	46719
890-4150-3	FS30	Soluble	Solid	300.0	46719
890-4150-4	FS31	Soluble	Solid	300.0	46719
890-4150-5	FS36	Soluble	Solid	300.0	46719
890-4150-6	SW04	Soluble	Solid	300.0	46719
890-4150-7	SW09	Soluble	Solid	300.0	46719
MB 880-46719/1-A	Method Blank	Soluble	Solid	300.0	46719
LCS 880-46719/2-A	Lab Control Sample	Soluble	Solid	300.0	46719
LCSD 880-46719/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46719
880-24919-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	46719
880-24919-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46719
880-24921-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	46719
880-24921-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46719

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: FS25
Date Collected: 02/17/23 11:00
Date Received: 02/20/23 08:41

Lab Sample ID: 890-4150-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	47310	02/27/23 12:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/27/23 16:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47453	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47317	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 14:42	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		1			47190	02/24/23 13:29	CH	EET MID

Client Sample ID: FS26
Date Collected: 02/17/23 14:35
Date Received: 02/20/23 08:41

Lab Sample ID: 890-4150-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	47310	02/27/23 12:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/27/23 16:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47453	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47317	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 15:03	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		1			47190	02/24/23 13:34	CH	EET MID

Client Sample ID: FS30
Date Collected: 02/17/23 14:40
Date Received: 02/20/23 08:41

Lab Sample ID: 890-4150-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	47310	02/27/23 12:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/27/23 16:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47453	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47317	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 15:25	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		1			47190	02/24/23 13:39	CH	EET MID

Client Sample ID: FS31
Date Collected: 02/17/23 15:40
Date Received: 02/20/23 08:41

Lab Sample ID: 890-4150-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	47310	02/27/23 12:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/27/23 17:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47453	02/28/23 12:13	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: FS31

Lab Sample ID: 890-4150-4
Matrix: Solid
Date Collected: 02/17/23 15:40
Date Received: 02/20/23 08:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			47317	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 15:47	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		10			47190	02/24/23 13:43	CH	EET MID

Client Sample ID: FS36

Lab Sample ID: 890-4150-5
Matrix: Solid
Date Collected: 02/17/23 15:10
Date Received: 02/20/23 08:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	47310	02/27/23 12:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/27/23 17:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47453	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47317	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 16:09	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		10			47190	02/24/23 13:48	CH	EET MID

Client Sample ID: SW04

Lab Sample ID: 890-4150-6
Matrix: Solid
Date Collected: 02/17/23 15:05
Date Received: 02/20/23 08:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	47310	02/27/23 12:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/27/23 18:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47453	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47317	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 16:53	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		1			47190	02/24/23 13:53	CH	EET MID

Client Sample ID: SW09

Lab Sample ID: 890-4150-7
Matrix: Solid
Date Collected: 02/17/23 15:35
Date Received: 02/20/23 08:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	47310	02/27/23 12:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/27/23 18:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47453	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47317	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 17:15	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Client Sample ID: SW09

Date Collected: 02/17/23 15:35
Date Received: 02/20/23 08:41

Lab Sample ID: 890-4150-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	46719	02/20/23 13:06	KS	EET MID
Soluble	Analysis	300.0		1			47190	02/24/23 13:57	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: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4150-1
SDG: 03D2057056

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4150-1	FS25	Solid	02/17/23 11:00	02/20/23 08:41	4.5'
890-4150-2	FS26	Solid	02/17/23 14:35	02/20/23 08:41	9'
890-4150-3	FS30	Solid	02/17/23 14:40	02/20/23 08:41	9'
890-4150-4	FS31	Solid	02/17/23 15:40	02/20/23 08:41	4.5'
890-4150-5	FS36	Solid	02/17/23 15:10	02/20/23 08:41	5'
890-4150-6	SW04	Solid	02/17/23 15:05	02/20/23 08:41	2-4'
890-4150-7	SW09	Solid	02/17/23 15:35	02/20/23 08:41	0-4'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	jadams@ensolum.com, kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 151	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057056	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	IR4-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.2	
Total Containers:		Corrected Temperature:	5.0	

Preservative Codes

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

ANALYSIS REQUEST

Pres. Code

Parameters: CHLORIDES (EPA: 300.0); TPH (8015); BTEX (8021)

890-4150 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES	TPH	BTEX	Sample Comments
FS25	S	2/17/2023	11:00	4.5'	Comp	1	x	x	x	
FS26	S	2/17/2023	14:35	9'	Comp	1	x	x	x	
FS30	S	2/17/2023	14:40	9'	Comp	1	x	x	x	
FS31	S	2/17/2023	15:40	4.5'	Comp	1	x	x	x	
FS36	S	2/17/2023	15:10	5'	Comp	1	x	x	x	
SW04	S	2/17/2023	15:05	2-4'	Comp	1	x	x	x	
SW09	S	2/17/2023	15:35	0-4'	Comp	1	x	x	x	

DN

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DN	Amanda Estrada	2-20-23 0841	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4150-1
SDG Number: 03D2057056

Login Number: 4150
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4150-1
SDG Number: 03D2057056

Login Number: 4150
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 02/21/23 11:18 AM

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.	True	
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").	True	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/8/2023 8:47:42 AM

JOB DESCRIPTION

MCA 151
SDG NUMBER 03D2057056

JOB NUMBER

890-4426-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

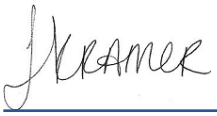
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
4/8/2023 8:47:42 AM

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

Client: Ensolum
Project/Site: MCA 151

Laboratory Job ID: 890-4426-1
SDG: 03D2057056

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Job ID: 890-4426-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4426-1

Receipt
The samples were received on 3/28/2023 2:26 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 0.8°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-50426/5-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: Surrogate recovery for the following sample was outside control limits: (890-4436-A-7-B MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-50055 and analytical batch 880-50074 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 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-50084 and analytical batch 880-50093 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.

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

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Client Sample ID: FS38

Lab Sample ID: 890-4426-1
Matrix: Solid
Date Collected: 03/28/23 12:00
Date Received: 03/28/23 14:26
Sample Depth: 4 - 9

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/07/23 00:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/07/23 00:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/07/23 00:15	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/05/23 16:16	04/07/23 00:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/07/23 00:15	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/05/23 16:16	04/07/23 00:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*04/05/23 16:16*	*04/07/23 00:15*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*04/05/23 16:16*	*04/07/23 00:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			04/08/23 09:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**545**		49.9		mg/Kg			04/03/23 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/31/23 16:59	04/01/23 13:48	1
Diesel Range Organics (Over C10-C28)	**545**		49.9		mg/Kg		03/31/23 16:59	04/01/23 13:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/31/23 16:59	04/01/23 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/31/23 16:59*	*04/01/23 13:48*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/31/23 16:59*	*04/01/23 13:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**492**		5.02		mg/Kg			04/07/23 06:10	1

Client Sample ID: FS39

Lab Sample ID: 890-4426-2
Matrix: Solid
Date Collected: 03/28/23 12:00
Date Received: 03/28/23 14:26
Sample Depth: 4 - 9

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/05/23 16:16	04/07/23 00:42	1
Toluene	**0.00574**		0.00201		mg/Kg		04/05/23 16:16	04/07/23 00:42	1
Ethylbenzene	**0.00731**		0.00201		mg/Kg		04/05/23 16:16	04/07/23 00:42	1
m-Xylene & p-Xylene	**0.0119**		0.00402		mg/Kg		04/05/23 16:16	04/07/23 00:42	1
o-Xylene	**0.00950**		0.00201		mg/Kg		04/05/23 16:16	04/07/23 00:42	1
Xylenes, Total	**0.0214**		0.00402		mg/Kg		04/05/23 16:16	04/07/23 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*04/05/23 16:16*	*04/07/23 00:42*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Client Sample ID: FS39

Date Collected: 03/28/23 12:00
Date Received: 03/28/23 14:26
Sample Depth: 4 - 9

Lab Sample ID: 890-4426-2

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*04/05/23 16:16*	*04/07/23 00:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0345**		0.00402		mg/Kg			04/08/23 09:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**118**		49.8		mg/Kg			04/03/23 11:24	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/01/23 09:22	04/02/23 13:21	1
Diesel Range Organics (Over C10-C28)	**118**		49.8		mg/Kg		04/01/23 09:22	04/02/23 13:21	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/01/23 09:22	04/02/23 13:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*88*		*70 - 130*	*04/01/23 09:22*	*04/02/23 13:21*	*1*
o-Terphenyl	*79*		*70 - 130*	*04/01/23 09:22*	*04/02/23 13:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**671**		5.01		mg/Kg			04/07/23 06:15	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-26511-A-9-C MS	Matrix Spike	102	103
880-26511-A-9-D MSD	Matrix Spike Duplicate	99	110
890-4426-1	FS38	109	84
890-4426-2	FS39	114	76
LCS 880-50426/1-A	Lab Control Sample	102	112
LCSD 880-50426/2-A	Lab Control Sample Dup	107	100
MB 880-50426/5-A	Method Blank	67 S1-	84

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-26648-A-14-C MS	Matrix Spike	97	84
880-26648-A-14-D MSD	Matrix Spike Duplicate	112	99
890-4426-1	FS38	112	101
890-4426-2	FS39	88	79
890-4436-A-7-B MS	Matrix Spike	143 S1+	126
890-4436-A-7-C MSD	Matrix Spike Duplicate	119	99
LCS 880-50055/2-A	Lab Control Sample	125	118
LCS 880-50084/2-A	Lab Control Sample	108	105
LCSD 880-50055/3-A	Lab Control Sample Dup	129	119
LCSD 880-50084/3-A	Lab Control Sample Dup	109	105
MB 880-50055/1-A	Method Blank	110	112
MB 880-50084/1-A	Method Blank	104	97

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50426/5-A
Matrix: Solid
Analysis Batch: 50521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50426

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/06/23 15:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/06/23 15:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/06/23 15:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/05/23 16:16	04/06/23 15:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:16	04/06/23 15:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/05/23 16:16	04/06/23 15:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*04/05/23 16:16*	*04/06/23 15:50*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*04/05/23 16:16*	*04/06/23 15:50*	*1*

Lab Sample ID: LCS 880-50426/1-A
Matrix: Solid
Analysis Batch: 50521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50426

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1123		mg/Kg		112	70 - 130		
Toluene			0.100	0.1168		mg/Kg		117	70 - 130		
Ethylbenzene			0.100	0.1113		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2183		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1108		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: LCSD 880-50426/2-A
Matrix: Solid
Analysis Batch: 50521

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50426

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1186		mg/Kg		119	70 - 130	5	35
Toluene			0.100	0.1165		mg/Kg		117	70 - 130	0	35
Ethylbenzene			0.100	0.1101		mg/Kg		110	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2167		mg/Kg		108	70 - 130	1	35
o-Xylene			0.100	0.1102		mg/Kg		110	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-26511-A-9-C MS
Matrix: Solid
Analysis Batch: 50521

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0998	0.1142		mg/Kg		114	70 - 130		
Toluene	<0.00202	U	0.0998	0.1169		mg/Kg		117	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

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

Lab Sample ID: 880-26511-A-9-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50521 — **Prep Batch: 50426**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0998	0.1110		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2143		mg/Kg		107	70 - 130
o-Xylene	<0.00202	U	0.0998	0.1061		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-26511-A-9-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50521 — **Prep Batch: 50426**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.1084		mg/Kg		108	70 - 130	5	35
Toluene	<0.00202	U	0.100	0.1119		mg/Kg		112	70 - 130	4	35
Ethylbenzene	<0.00202	U	0.100	0.1042		mg/Kg		104	70 - 130	6	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2028		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00202	U	0.100	0.1024		mg/Kg		102	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

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

Lab Sample ID: MB 880-50055/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50074 — **Prep Batch: 50055**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/31/23 16:59	04/01/23 08:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/31/23 16:59	04/01/23 08:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/31/23 16:59	04/01/23 08:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/31/23 16:59*	*04/01/23 08:57*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/31/23 16:59*	*04/01/23 08:57*	*1*

Lab Sample ID: LCS 880-50055/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50074 — **Prep Batch: 50055**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	931.7		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	874.4		mg/Kg		87	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

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

Lab Sample ID: LCS 880-50055/2-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50055

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	125		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: LCSD 880-50055/3-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50055

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	973.6		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	891.8		mg/Kg		89	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	129		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: 890-4436-A-7-B MS
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	997	1383	F1	mg/Kg		136	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F2	997	1139		mg/Kg		112	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	143	S1+	70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: 890-4436-A-7-C MSD
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 50055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	999	1184		mg/Kg		116	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U F2	999	919.9	F2	mg/Kg		90	70 - 130	21	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	99		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

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

Lab Sample ID: MB 880-50084/1-A
Matrix: Solid
Analysis Batch: 50093

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50084

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/01/23 09:22	04/02/23 08:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/01/23 09:22	04/02/23 08:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/01/23 09:22	04/02/23 08:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*04/01/23 09:22*	*04/02/23 08:39*	*1*
o-Terphenyl	*97*		*70 - 130*	*04/01/23 09:22*	*04/02/23 08:39*	*1*

Lab Sample ID: LCS 880-50084/2-A
Matrix: Solid
Analysis Batch: 50093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50084

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	806.4		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	731.3		mg/Kg		73	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: LCSD 880-50084/3-A
Matrix: Solid
Analysis Batch: 50093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50084

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	856.3		mg/Kg		86	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	746.0		mg/Kg		75	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: 880-26648-A-14-C MS
Matrix: Solid
Analysis Batch: 50093

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50084

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	998	915.4		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	661.4	F1	mg/Kg		64	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

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

Lab Sample ID: 880-26648-A-14-C MS
Matrix: Solid
Analysis Batch: 50093

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50084

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 880-26648-A-14-D MSD
Matrix: Solid
Analysis Batch: 50093

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 50084

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	999	1131	F2	mg/Kg		110	70 - 130	21	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	806.9		mg/Kg		79	70 - 130	20	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	99		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50416/1-A
Matrix: Solid
Analysis Batch: 50618

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/07/23 03:58	1

Lab Sample ID: LCS 880-50416/2-A
Matrix: Solid
Analysis Batch: 50618

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.7		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-50416/3-A
Matrix: Solid
Analysis Batch: 50618

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	246.4		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 880-26571-A-1-C MS
Matrix: Solid
Analysis Batch: 50618

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	3340		1260	4544		mg/Kg		96	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-26571-A-1-D MSD
Matrix: Solid
Analysis Batch: 50618

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3340		1260	4510		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

GC VOA

Prep Batch: 50426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Total/NA	Solid	5035	
890-4426-2	FS39	Total/NA	Solid	5035	
MB 880-50426/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-50426/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50426/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26511-A-9-C MS	Matrix Spike	Total/NA	Solid	5035	
880-26511-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 50521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Total/NA	Solid	8021B	50426
890-4426-2	FS39	Total/NA	Solid	8021B	50426
MB 880-50426/5-A	Method Blank	Total/NA	Solid	8021B	50426
LCS 880-50426/1-A	Lab Control Sample	Total/NA	Solid	8021B	50426
LCSD 880-50426/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50426
880-26511-A-9-C MS	Matrix Spike	Total/NA	Solid	8021B	50426
880-26511-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	50426

Analysis Batch: 50660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Total/NA	Solid	Total BTEX	
890-4426-2	FS39	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 50055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Total/NA	Solid	8015NM Prep	
MB 880-50055/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50055/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4436-A-7-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4436-A-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 50074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Total/NA	Solid	8015B NM	50055
MB 880-50055/1-A	Method Blank	Total/NA	Solid	8015B NM	50055
LCS 880-50055/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50055
LCSD 880-50055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50055
890-4436-A-7-B MS	Matrix Spike	Total/NA	Solid	8015B NM	50055
890-4436-A-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50055

Prep Batch: 50084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-2	FS39	Total/NA	Solid	8015NM Prep	
MB 880-50084/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50084/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50084/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26648-A-14-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26648-A-14-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

GC Semi VOA

Analysis Batch: 50093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-2	FS39	Total/NA	Solid	8015B NM	50084
MB 880-50084/1-A	Method Blank	Total/NA	Solid	8015B NM	50084
LCS 880-50084/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50084
LCSD 880-50084/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50084
880-26648-A-14-C MS	Matrix Spike	Total/NA	Solid	8015B NM	50084
880-26648-A-14-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50084

Analysis Batch: 50151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Total/NA	Solid	8015 NM	
890-4426-2	FS39	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Soluble	Solid	DI Leach	
890-4426-2	FS39	Soluble	Solid	DI Leach	
MB 880-50416/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50416/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50416/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26571-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26571-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 50618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4426-1	FS38	Soluble	Solid	300.0	50416
890-4426-2	FS39	Soluble	Solid	300.0	50416
MB 880-50416/1-A	Method Blank	Soluble	Solid	300.0	50416
LCS 880-50416/2-A	Lab Control Sample	Soluble	Solid	300.0	50416
LCSD 880-50416/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50416
880-26571-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	50416
880-26571-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	50416

Lab Chronicle

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Client Sample ID: FS38

Date Collected: 03/28/23 12:00
Date Received: 03/28/23 14:26

Lab Sample ID: 890-4426-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	50426	04/05/23 16:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50521	04/07/23 00:15	SM	EET MID
Total/NA	Analysis	Total BTEX		1			50660	04/08/23 09:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			50151	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	50055	03/31/23 16:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/01/23 13:48	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50618	04/07/23 06:10	SMC	EET MID

Client Sample ID: FS39

Date Collected: 03/28/23 12:00
Date Received: 03/28/23 14:26

Lab Sample ID: 890-4426-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	50426	04/05/23 16:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50521	04/07/23 00:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			50660	04/08/23 09:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			50151	04/03/23 11:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	50084	04/01/23 09:22	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50093	04/02/23 13:21	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	50416	04/05/23 14:47	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50618	04/07/23 06:15	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 151

Job ID: 890-4426-1
SDG: 03D2057056

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4426-1	FS38	Solid	03/28/23 12:00	03/28/23 14:26	4 - 9
890-4426-2	FS39	Solid	03/28/23 12:00	03/28/23 14:26	4 - 9

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Chain of Custody

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

890-4426 Chain of Custody

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Project Manager:	Anna Byers	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 Nat'l Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	575-200-6854	Email:	kjennings@ensolum.com abyers@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 151	Turn Around	
Project Number:	03A05-1056	☑ Routine ☐ Rush	
Project Location:	32.8085, -103.7714	Due Date:	
Sampler's Name:	Kalei Mata	TAT starts the day received by the lab, if received by 4:30pm	
P.O #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TMH-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.0	
Total Containers:		Corrected Temperature:	0.8	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX	TPH	Chlorides
FS58	S	3/28/23	1200	4-9'	C	1		1	1	1
FS59	S	3/28/23	1220	4-9'	C	1		1	1	1

Preservative Codes

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

Sample Comments

NAPP2305377174

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Kalei Mata	Amanda Stoff	3/28/23 1436			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

V

890-4426 Chain of Custody

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Project Manager:	Anna Byers	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 Nat'l Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	575-200-6154	Email:	kjennings@ensolum.abyers@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 151	Turn Around	
Project Number:	03D05-1056	☑ Routine ☐ Rush	
Project Location:	32.8085, -103.7174	Due Date:	
Sampler's Name:	J Fallenmata	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.3
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2
Total Containers:		Corrected Temperature:	0.8

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: BTEX	TPH	Chlorides	Sample Comments
FS38	S	3/28/23	1200	4-9'	C	1	1	1	1	NAPP2305377174
FS39	S	3/28/23	1220	4-9'	C	1	1	1	1	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	J Fallenmata	Amanda Stoff	3/28/23 1436			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4426-1
SDG Number: 03D2057056

Login Number: 4426
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Carlsbad

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.	True	
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: 890-4426-1
SDG Number: 03D2057056

Login Number: 4426
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/30/23 01:53 PM

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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Nobui, Jennifer, EMNRD
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Hamlet, Robert, EMNRD
Subject: FW: [EXTERNAL] Maverick Permian- Extension Request- MCA Unit #151 (Incident Number NAPP2235377174)
Date: Thursday, March 9, 2023 12:52:04 PM
Attachments: image001.png
image002.png
image003.png
image004.png

[**EXTERNAL EMAIL**]

Hello Kalei

OCD approves your request for a 90-day extension to June 11, 2023 to submit a remediation plan or closure report. 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: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, March 8, 2023 4:19 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Bryce Wagoner <Bryce.Wagoner@mavresources.com>
Subject: [EXTERNAL] Maverick Permian- Extension Request- MCA Unit #151 (Incident Number NAPP2235377174)

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

To Whom It May Concern,

MCA Unit #151 (Incident Number NAPP2235377174)

Maverick Permian, LLC (Maverick) is requesting an extension for the current deadline of March 13, 2023, for submitting a report required in 19.15.29.12.B.(1) NMAC detailing remedial actions at the MCA Unit #151 (Incident Number NAPP2235377174). On December 13, 2022, corrosion of an injection line caused a produced water release onto the southern adjacent pasture at the Site. Initial site assessment activities have been completed and excavation activities have been completed to remove identified soil impacts. To date, an estimated 1,200 cubic yards of impacted soil has been excavated, hauled, and disposed of at an approved disposal facility. It has been determined that additional excavation samples are required. Pending field findings and analytical results, further excavation or other remedial mitigation(s) may be warranted. To complete additional sampling activities, excavate additional impacts if identified, and submit a remediation work plan or closure report, Maverick requests a 90-day extension of this deadline until June 11, 2023.

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Subject: RE: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 3/27/2023)
Date: Thursday, March 23, 2023 4:23:38 PM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

Kalei,

Please disregard my previous email. My apologies. I see that you will begin sampling on 03/28/2023 and that you have provided dates for each site. Thank you!
Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.
JH

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

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, March 23, 2023 1:47 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 3/27/2023)

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

All,

Maverick Permian, LLC (Maverick) plans to complete sampling activities at the following site the week of March 27, 2023.

- Grayburg Eumont Straw Battery/ NAPP2302036818
  - Sampling Date: 3/28/2023 & 3/29/2023
- MCA 351/ NAPP2302034681

    - Sampling Date: 3/30/2023 & 3/31/2023
- MCA 254/ NAPP2302035947
    - Sampling Date: 3/28/2023 & 3/29/2023
- MCA 400/NAPP230545505
    - Sampling Date: 3/29/2023
- MCA 301/ NAPP230755601
    - Sampling Date: 3/31/2023
- SC Federal Battery / NAPP2303272686
    - Sampling Date: 3/28/2023 & 3/29/2023
- MCA 151 / NAPP2235377174
    - Sampling Date: 3/28/2023

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)
Date: Thursday, January 12, 2023 8:33:41 AM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.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.

JH

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

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, January 11, 2023 5:25 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)

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 January 16, 2023.

- Oxy State F-1 / NAPP2235375291
- Jalmat 188 / NAPP2235373931
- Jalmat 170 / NAPP2233946698
- MCA 151 / NAPP2235377174

- EVGSAU 2418-001 / NAPP2231954757
- Buckeye 43-01 / NAPP2230752440
- Leamex 018 / NAPP2234158858
-

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

ENSOLUM

APPENDIX F

Final C-141

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

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

Incident ID	NAPP2235377174
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Maverick Permian, LLC	OGRID: 331199
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: Bryce.Wagoner@mavresources.com	Incident # *(assigned by OCD)* NAPP2235377174
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.8085 Longitude -103.7714

(NAD 83 in decimal degrees to 5 decimal places)

Site Name MCA Unit #151	Site Type
Date Release Discovered December 13, 2022	API# *(if applicable)* *30-025-00739*

Unit Letter	Section	Township	Range	County
F	28	17S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 22.4 bbls	Volume Recovered (bbls) 5 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 Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The release was caused by an injection line due to possible inner corrosion. The release occurred off pad. The source of the release has been stopped and the impacted area has been secured. Initial response and removal of saturated soil from the release area has been completed.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235377174
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ____Bryce Wagoner _____ Title: ___Permian HSE Specialist II_____

Signature: _____ Date: __12/19/2022_____

email: _____Bryce.Wagoner@mavresources.com____ Telephone: ___928-241-1862_____

OCD Only

Received by: ____Jocelyn Harimon_____ Date: ___12/20/2022__

NAPP2235377174

Pooled Fluids on the Surface										
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries *edges of pool where depth is 0 . don't count shared boundaries*	Oil-Water Ratio (%)	Pooled Area (ft^2)	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	30.0	20.0	2.0	4.0	0.00	600.0	0.0	4.5	0.00	4.45
Rectangle B	20.0	10.0	2.0	4.0	0.00	200.0	0.0	1.5	0.00	1.48
Rectangle C	25.0	20.0	2.00	4.00	0.00	500.000	0.042	3.708	0.15	3.71
Rectangle D						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
							Total Volume (bbls):	**9.64**	**0.15**	**9.64**

Subsurface Fluids										
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) *10% in consolidated sediments after rain to 50% in sand with no precipitation*	Oil-Water Ratio (%)	Area (ft^2)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	30.0	20.0	3.0	0.2	0.00	600.0	26.7	5.3	0.00	5.3
Rectangle B	35.0	25.0	2.0	0.2	0.00	875.0	26.0	5.2	0.00	5.2
Rectangle C	20.0	15.0	2.0	0.2	0.00	300.0	8.9	1.8	0.00	1.8
Rectangle D	15.0	10.0	1.0	0.2	0.00	150.0	2.2	0.4	0.00	0.4
Rectangle E						0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J						0.0	0.0	0.0	0.00	0.0
							Total Volume (bbls):	**12.76**	**0.00**	**12.76**

TOTAL RELEASE VOLUME (bbls):	**22.4**

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 168599

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 168599
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	12/20/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235377174
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	51-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235377174
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Date: 04/14/2023

email: Bryce.Wagoner@mavresources.com Telephone: (928) 241-1862

OCD Only

Received by: Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235377174
District RP	
Facility ID	
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Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Bryce Wagoner Date: 04/14/2023

email: Bryce.Wagoner@mavresources.com Telephone: (928) 241-1862

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Nelson Velez Date: 07/14/2023

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 209761

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 209761
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	7/14/2023