

December 22, 2022

New Mexico Oil Conservation Division

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

Re: Revised Remediation Work Plan

MCA 94

Incident Number NAPP2212531906

Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Natural Resources, LLC (Maverick), has prepared the following *Revised Remediation Work Plan* (RRWP) to document site assessment and soil sampling activities and provide supplemental information requested in the denial of the original *Remediation Work Plan* (RWP), dated October 26, 2022. Maverick received the denial notice from the New Mexico Oil Conservation Division (NMOCD) on November 22, 2022. In the denial, NMOCD stated:

Remediation Plan Denied. Please provide OCD information on how impacted soils at PH04 at 8 feet bgs will be addressed. Anything other than excavation requires prior OCD approval. OCD will require bottom/floor confirmation soil samples be collected at 4' to ensure chloride concentrations have not exceeded criteria. Please submit a revised Remediation Plan to the OCD portal by December 22, 2022.

This RRWP confirms the plan for excavation of waste-containing soil in the top 4 feet as originally requested and specifies deeper excavation to address limited chloride impacts in the vicinity of PH04.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 20, Township 17 South, Range 32 East, in Lea County, New Mexico (32.81441° N, 103.783172° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On April 28, 2022, a hole in a poly flowline resulted in the release of approximately 125 barrels (bbls) of produced water into the pasture where fluids pooled. Released fluids were not recovered. The previous operator, ConocoPhillips Company (COP), reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on May 5, 2022. The release was assigned Incident Number NAPP2212531906.

The previous operator, ConocoPhillips Company, sold the asset to Maverick on June 1, 2022. Field activities at the Site were postponed until the sale was complete.

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 3122 National Park Highway | Carlsbad, NM 88220 | ensolum.com

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SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be between 50 feet and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well RA-12020-POD1, located approximately 3,290 feet southwest of the Site. The groundwater well has a reported depth to groundwater of 81 feet bgs and a total depth of 120 feet bgs. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a wash out, located approximately 7,213 feet east 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 to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization presented in the October 26, 2022 RWP, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH is applied to the top 4 feet of the pasture area and lease road 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.

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On August 8, 2022, personnel completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven preliminary soil samples (SS01 through SS07) were collected within the release extent at a depth of approximately 0.5 feet bgs. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The preliminary 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,

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New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for soil samples SS01 through SS07 indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for soil samples SS01, SS03, SS05, and SS06 indicated chloride concentrations exceeded the reclamation requirement; therefore, delineation of waste-containing soil appeared warranted.

DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between October 3 and October 6, 2022, delineation activities were conducted at the Site to assess the vertical and lateral extent of waste-containing soil. Potholes PH01 through PH06 were advanced via track mounted backhoe within and around the release extent. The delineation potholes were advanced to a depth of approximately 12 feet bgs before encountering refusal. Discrete delineation soil samples were collected from each pothole at depths ranging from 1-foot to 12 feet bgs. Soil from the potholes was field screened for VOCs and chloride. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil samples were handled and analyzed as described above. The delineation soil sample locations are depicted on Figure 3.

Laboratory analytical results for the delineation soil samples PH01 through PH06, indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for the delineation soil samples collected from potholes indicated waste-containing soil is present within the top 4 feet of soil off pad. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix D.

PROPOSED REMEDIATION WORK PLAN

As a result of the data presented in this RRWP, Maverick proposes excavation of waste-containing soil in the top 4 feet. Maverick requests approval to complete the following remediation activities:

- Maverick will excavate soil in the top 4 feet of the subsurface containing chloride concentrations exceeding 600 mg/kg. Excavation will proceed laterally until sidewall samples indicated chloride concentrations are compliant with the reclamation requirement. Confirmation samples will be collected from the sidewalls and floor of the final excavation extent.
- Due to the estimated 12,500 square foot size of the excavation, Maverick requests a variance for frequency of excavation confirmation samples. Maverick proposes the frequency of confirmation sampling for the excavation floor to be decreased from every 200 square feet (approximately 63 samples) to every 400 square feet (approximately 32 samples). Each 5-point composite floor sample will represent a 400 square foot area. Sidewalls will be collected at a frequency of every 200 square feet. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation samples will be analyzed for chloride only since delineation samples did not contain BTEX or TPH exceeding Site Closure Criteria or the reclamation requirement.
- The proposed excavation will also include any soil deeper than 4 feet exceeding Site Closure Criteria including soil near PH04 between 4 and 12 feet bgs.

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- An estimated 1,900 cubic yards of impacted soil will be excavated and disposed of at a licensed disposal facility.
- The excavation will be backfilled and recontoured to match pre-existing conditions. The disturbed pasture will be re-seeded with an approved BLM seed mixture.

Maverick will complete the excavation activities within 90 days of the date of approval of this RWP by the NMOCD. A report detailing remedial action will be submitted within 30 days of receipt of laboratory analytical results. Maverick believes the scope of work described above will meet requirements set forth in 19.15.29.13 NMAC and be protective of human health, the environment, and groundwater. As such, Maverick respectfully requests approval of this RWP from NMOCD.

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 Moir, PG Senior Managing Geologist

cc: Bryce Wagoner, Maverick Natural Resources, LLC Bureau of Land Management

Appendices:

Figure 1 Site Location Map

Figure 2 Preliminary Soil Sample Locations
Figure 3 Delineation Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

Appendix B Photographic Log

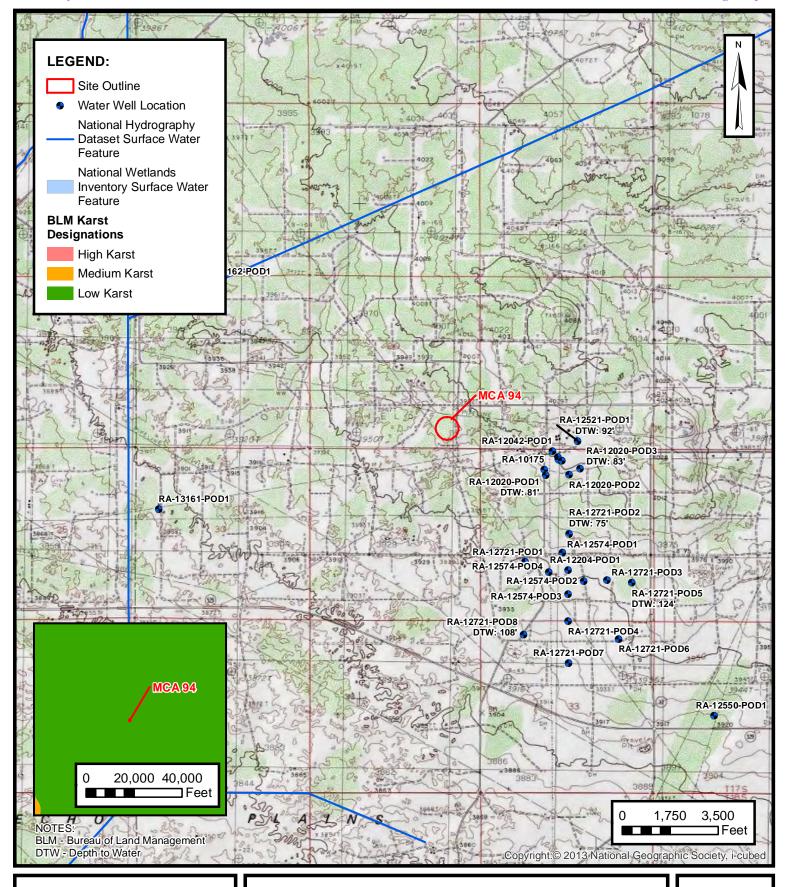
Appendix C Lithologic / Soil Sampling Logs

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

Appendix E Final C-141



FIGURES



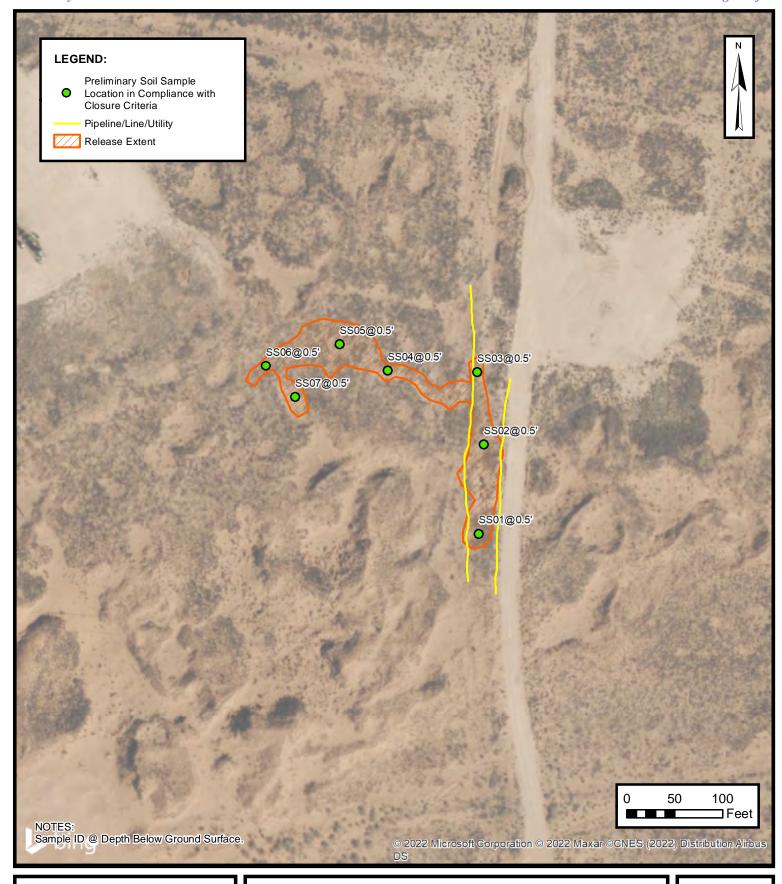


SITE RECEPTOR MAP

MAVERICK NATURAL RESOURCES, LLC MCA94 NAPP2212531906

Unit P, Sec 20, T17S, R32E Lea County, New Mexico

FIGURE

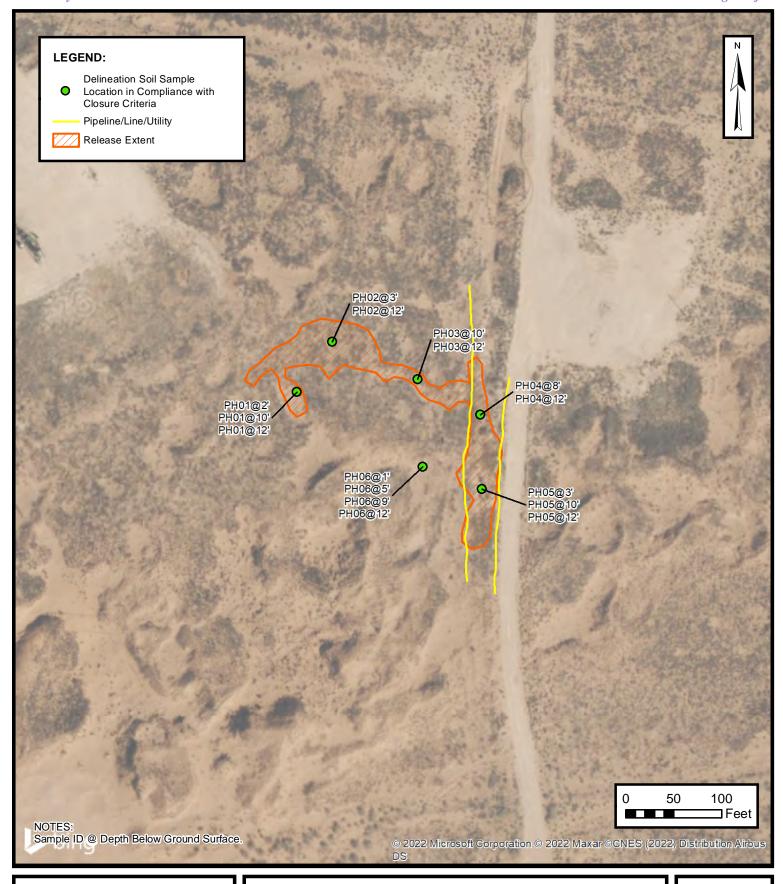




PRELIMINARY SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC MCA 94 NAPP2212531906 Unit P, Sec 20, T17S, R32E Lea County, New Mexico **FIGURE**

2





DELINEATION SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC
MCA 94
NAPP2212531906
Unit P, Sec 20, T17S, R32E
Lea County, New Mexico

FIGURE

3



TABLES

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TABLE 1 **SOIL SAMPLE ANALYTICAL RESULTS MCA 94 Maverick Natural Resources, LLC** Lea County, New Mexico Sample Depth Benzene **Total BTEX TPH GRO TPH DRO TPH ORO GRO+DRO Total TPH** Chloride **Date** Designation (feet bgs) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) NMOCD Table 1 Closure Criteria (NMAC 19.15.29) 10 50 NE NE NE 1,000 2,500 10,000 **Preliminary Assessment Soil Samples SS01** 08/08/2022 0.5 < 0.00201 < 0.00402 <50.0 < 50.0 < 50.0 < 50.0 < 50.0 5,960* SS02 08/08/2022 0.5 < 0.00200 < 0.00400 <50.0 < 50.0 <50.0 < 50.0 < 50.0 545* SS03 08/08/2022 0.5 < 0.00199 < 0.00398 <50.0 < 50.0 <50.0 <50.0 <50.0 2,520* **SS04** 08/08/2022 0.5 < 0.00201 < 0.00402 <50.0 < 50.0 <50.0 < 50.0 < 50.0 429* SS05 08/08/2022 0.5 < 0.00199 < 0.00398 <49.9 55.6 <49.9 55.6 55.6 4.870* **SS06** 08/08/2022 0.5 < 0.00200 < 0.00399 <49.9 <49.9 <49.9 <49.9 <49.9 3,460* SS07 08/08/2022 0.5 < 0.00201 5.76* < 0.00402 <49.9 <49.9 <49.9 <49.9 <49.9 **Delineation Soil Samples** PH01 10/03/2022 2 < 0.00201 < 0.00402 <50.0 9,380* < 50.0 < 50.0 < 50.0 < 50.0 PH01 10/03/2022 10 <0.00198 < 0.00396 <50.0 < 50.0 1,170 < 50.0 <50.0 < 50.0 PH01 10/04/2022 < 0.00201 < 0.00402 12 <50.0 < 50.0 <50.0 <50.0 < 50.0 6,400 PH02 10/04/2022 3 < 0.00200 < 0.00399 <50.0 < 50.0 < 50.0 < 50.0 < 50.0 7,810* PH02 10/04/2022 12 < 0.00398 < 0.00199 < 50.0 < 50.0 < 50.0 <50.0 < 50.0 7,510 PH03 10/04/2022 10 < 0.00402 <49.8 <49.8 9,320 < 0.00201 <49.8 <49.8 <49.8 PH03 10/04/2022 12 < 0.00200 < 0.00401 <49.8 <49.8 <49.8 <49.8 <49.8 8,940 PH04 10/04/2022 8 < 0.00399 < 0.00200 <49.8 <49.8 <49.8 <49.8 <49.8 10,300 PH04 10/04/2022 12 < 0.00398 < 0.00199 <49.9 <49.9 <49.9 <49.9 <49.9 7,190 PH05 10/04/2022 3 < 0.00201 < 0.00402 <50.0 < 50.0 < 50.0 <50.0 < 50.0 164* PH05 10/06/2022 10 < 0.00200 < 0.00399 <49.8 <49.8 <49.8 <49.8 <49.8 6,350 PH05 10/6/2022 12 < 0.00199 < 0.00398 < 50.0 < 50.0 < 50.0 < 50.0 < 50.0 7,310 PH06 10/06/2022 1 < 0.00201 < 0.00402 <49.8 <49.8 <49.8 <49.8 <49.8 38.3* PH06 10/06/2022 5 < 0.00200 < 0.00401 <49.8 <49.8 <49.8 142 <49.8 <49.8 PH06 10/06/2022 9 < 0.00199 < 0.00398 <49.9 <49.9 <49.9 <49.9 <49.9 50.9 PH06 10/06/2022 < 0.00199 < 0.00398 <49.9 12 <49.9 <49.9 <49.9 <49.9 33.2

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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

Grey text represents samples that have been excavated



APPENDIX A

Referenced Well Records



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**

 \mathbf{X}

RA 12020 POD1

Q64 Q16 Q4 Sec Tws Rng 28 17S 32E

614828 3630954

Driller License: 1456

Driller Company:

WHITE DRILLING COMPANY

Driller Name:

Drill Start Date:

WHITE, JOHN (LD)

09/24/2013

10/07/2013

Drill Finish Date:

09/25/2013

Plug Date:

PCW Rcv Date:

Source:

Shallow

Log File Date: **Pump Type:**

Pipe Discharge Size:

Estimated Yield:

Casing Size:

2.00

Depth Well:

120 feet

Depth Water:

81 feet

Water Bearing Stratifications:

Top Bottom Description

70

Sandstone/Gravel/Conglomerate

111

Shale/Mudstone/Siltstone

Casing Perforations:

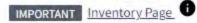
Top Bottom

75 110

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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POINT OF DIVERSION SUMMARY



Monitoring location 324600103484601 is associated with a WELL in EDDY COUNTY, NEW MEXICO. Water data back to 1971 are available online.









APPENDIX B

Photographic Log

E ENSOLUM

Photographic Log

Maverick Natural Resources, LLC MCA 94 Incident Number NAPP2212531906



Photograph: 1 Date: 4/29/2022 Description: Soil staining in release footprint

View: Northwest

Photograph: 2 Date: 4/29/2022

Description: Soil staining in release footprint

View: Southeast



Photograph: 3 Date: 8/8/2022

Description: Soil Sampling activities

View: West



Photograph: 4 Date: 8/8/2022

Description: Soil Sampling Activities

View: Southwest



APPENDIX C

Lithologic Soil Sampling Logs

								Sample Name: PH01	Date: 10/3/22 & 10/4/22
	7		N	C	01		RA	Site Name: MCA 94	'
			N	3		_ U		Incident Number: NAPP2212531	906
								Job Number: 03D2057010	
		LITHOL	.OGI	C / SOIL S	SAMPLING	Logged By: CW & CS	Method: Backhoe		
·								Hole Diameter:	Total Depth: 12'
Comments: Field screening conducted with HACH Chloride Test Strips and performed with 1:4 dilution factor of soil to distilled water. No correction									ectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions
					1	L -			
Υ	10,858	0.0	N		1 _	1	sp	Sand, VF, Red, w/ Silt	
Υ	14,935	0.0	N		2 - -	- - - 2	sp	Sand, VF, Red, w/ CCHE	
N	14,935	0.0	N		3 -	- - 3 -	cche	ССНЕ	
N	12,712	0.0	N		4 - -	- - 4	cche	ССНЕ	
N		0.0	N		5 <u>-</u>	- - 5	cche	ССНЕ	
N	5,756	0.0	N		6 <u>-</u>	- - 6	cche	ССНЕ	
N		0.0	N		7 -	- - - -	cche	ССНЕ	
N	1,730	0.0	N		8 _	- - 8	cche	ССНЕ	
N		0.0	N		9 -	- - 9	cche	ССНЕ	
Υ	8,820	0.0	N		10	- _ 10	sp-sm	Stone w/cche Brown/Tan	
Υ		0.0	N		11 _ -	- - 11	sp-sm	Stone w/cche Brown/Tan	
N	12,930	0.0	N		12	12	sp-sm	Sand Sandstone w/ cche Brown/	Tan

								Sample Name: PH02	Date: 10/4/22
			N	C	OI		RA	Site Name: MCA 94	
								Incident Number: NAPP2212531	906
								Job Number: 03D2057010	
		LITHOL	.OGI	C / SOIL S	SAMPLING		Logged By: CS	Method: Backhoe	
Coord	inates: 32	2.81441,	-103.	783172			Hole Diameter:	Total Depth: 12'	
Comments: Field screening conducted with HACH Chloride Test Strips and performed with 1:4 dilution factor of soil to distilled water. No correction									ctively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions
N	6,988	0.0	N		1 1	L - - 1	sp-sm	Sand Red Brown	
N	10,287	0.0	N		2 -	_ _ _	sp-sm	Sand Red Brown	
N	11,110	0.0	N		3 -	_ _ 3 _	sp-sm	Sand Red Brown	
N	10,287	0.0	N		4 -	4	sp-sm	Sand Red Brown	
N		0.0	N		5 -	- - 5 -	sp-sm	Sand Red Brown	
N	8,820	0.0	N		6 _	- - 6	sp-sm	Sand Red Brown	
N		0.0	N		7 -	- - - 7	sp-sm	Sand Red Brown	
N	11,110	0.0	N		8 -	- - 8	cche	Sand Red Brown w/ Clay & cche	
N		0.0	N		9 -	- - 9 -	cche	Sand Red Brown w/ Clay & cche	
N	10,287	0.0	N		10 _	- - 10	cche	Sand Tan Brown w/ chhe	
N		0.0	N		11 _	- - - 11	cche	Sand Tan Brown w/ chhe	
N	12,006	0.0	N		12	12	cche	Sand Tan Brown w/ chhe	

								Sample Name: PH03	Date: 10/4/22
	7		N	C	0 1		RA	Site Name: MCA 94	
			I			_ 0		Incident Number: NAPP221253	31906
								Job Number: 03D2057010	
		LITHOL	OGI	C / SOIL S	SAMPLING		Logged By: CS	Method: Backhoe	
Coordinates: 32.81441, -103.783172								Hole Diameter:	Total Depth: 12'
Comments: Field screening conducted with HACH Chloride Test Strips and performed with 1:4 dilution factor of soil to distilled water. No correction									pectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic [Descriptions
N	778	0.0	Ν		1 1 -	_ _ _ 1 _	sp-sm	Sand Tan-Brown Med-Fine Gra	ined
N	2,839	0.0	N		2 - -	_ 2 _	sp-sm	Sand Tan-Brown Med-Fine Gra	ined
N	2,296	0.0	N		3 <u>-</u>	3	sp-sm	Sand Tan-Brown Med-Fine Gra	ined
N	3,544	0.0	N		4 -	4	sp-sm	Sand Tan-Brown Med-Fine Gra	ined
N		0.0	N		5 -	- - - 5	sp-sm	Sand Tan-Brown Med-Fine Gra	ined
N	14,067	0.0	N		6 _	- - - 6	sp-sc	Sand Red-Brown w/ Clay	
N		0.0	N		7 -	- - - 7	sp-sc	Sand Red-Brown w/ Clay	
N	14,067	0.0	N		8 <u>-</u>	- 8	sp-sc	Sand Red-Brown w/ Clay	
N		0.0	N		9 -	- - - 9	sp-sc	Sand Red-Brown w/ Clay	
N	16,592	0.0	N		10	- - 10	sp-sm	Sand Tan-Brown	
N		0.0	N		11 -	- - - 11	sp-sm	Sand Tan-Brown	
N	14,067	0.0	N		12	12	sp-sm	Sand Tan-Brown	

								Sample Name: PH04	Date: 10/4/22
Too.	7						B. 4	Site Name: MCA 94	1,
			N	3	OI	_ U	V	Incident Number: NAPP221253	1906
								Job Number: 03D2057010	
		LITHOL	OGI	C / SOIL S	SAMPLING		Logged By: CS	Method: Backhoe	
Coord	inates: 32	2.81441,	-103.	783172			Hole Diameter:	Total Depth: 12'	
Comm	ents: Fie	ld screen	ing co	onducted v	vith HACH Ch	Strips and	PID for chloride and vapor, resp	ectively. Chloride test	
perfor	med with	n 1:4 dilu	tion f	actor of so	il to distilled	water. No c	orrection	factors included.	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic D	Descriptions
N	ND	0.0	N		1 1 -	L - - 1 -	sp-sm	Sand Brown loose fine grained	poorly graded
N	712	0.0	N		2 _	2	sp-sm	Sand Red Brown compact (wet)	fine grained poorly graded
N	2,464	0.0	N		3 -	- - - -	sp-sm	Sand Red Brown compact (wet)	fine grained poorly graded
N	3,544	0.0	N		4 _	- - 4	sp-sm	Sand Red Brown compact (wet)	fine grained poorly graded
N		0.0	N		5 <u>-</u>	- - 5	sp-sm	Sand Red Brown compact (wet)	fine grained poorly graded
N	12,006	0.0	N		6 _	- - 6	sp-sm	Sand Red Brown compact (wet)	fine grained poorly graded
N		0.0	N		7 <u>-</u>	- - 7	sp-sm	Sand Red Brown compact (wet)	fine grained poorly graded
N	14,067	0.0	N		8 -	- - - 8	cche/spsm	Sand Tan Brwon w/ White Clast	:s?
N		0.0	N		9 -	- - - 9	cche/spsm	Sand Tan Brwon w/ White Clast	:s?
N	12,006	0.0	N		10 _	- - 10	spsm/cche	Sand Tan Brwon w/ White Clast	:s?
N		0.0	N		11 _ -	- - 11	spsm/cche	Sand Tan Brwon w/ White Clast	:s?
N	8,820	0.0	N		12	- 12	spsm/cche	Sand Tan Brwon w/ White Clast	rs?

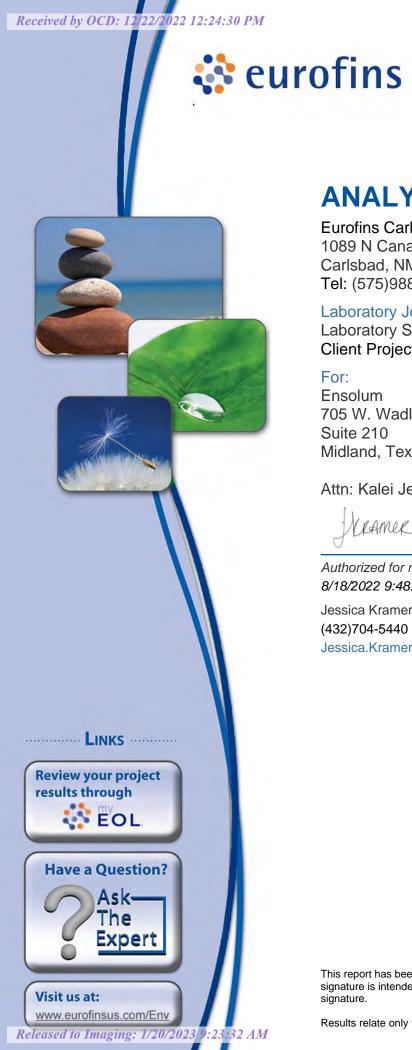
								Sample Name: PH05	Date: 10/4/22 &10/6/22
	7		N	C	0 1	- 11	RA	Site Name: MCA 94	
			N			_ U		Incident Number: NAPP22125	31906
								Job Number: 03D2057010	
		LITHOL	OGI	C / SOIL S	SAMPLING	Logged By: CS	Method: Backhoe		
,							Hole Diameter:	Total Depth: 12'	
Comments: Field screening conducted with HACH Chloride Test Strips and performed with 1:4 dilution factor of soil to distilled water. No correction									spectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic	Descriptions
N	ND	0.0	Ν		1 - 1 - -	L - - 1 -	sp-sm	Sand Tan/Reddish Brown Fine	Grained Poorly Graded
N	ND	0.0	N		2 <u>-</u> -	_ 2 	sp-sm	Sand Tan/Reddish Brown Fine	Grained Poorly Graded
N	108	0.0	N		3 -	- 3	sp-sm	Sand Tan/Reddish Brown Fine	Grained Poorly Graded
N	ND	0.0	N		4 -	4	sp-sm	Sand Tan/Reddish Brown Fine	Grained Poorly Graded
N		0.0	N		5 - -	- - - -	sp-sm	Sand Tan/Reddish Brown Fine	Grained Poorly Graded
N	3,052	0.0	N		6 _	- - 6	sp-sm	Sand Red/Brown	
N		0.0	N		7 <u>-</u>	- - -	sp-sm	Sand Red/Brown	
N	2,464	0.0	N		8 -	- - 8	sp-sm	Sand Red/Brown	
N		0.0	N		9 -	- - 9	sp-sm	Sand Red/Brown	
N	15,260	0.0	N		10 _	- - 10	sp-sm	Sand Tan/Brown w/ White Cla	asts
N		0.0	N		11 _	- - - 11 -	sp-sm	Sand Tan/Brown w/ White Cla	asts
N	15,260	0.0	N		12 <u>-</u>	- - 12	spsm/cche	Tan Brown w/ White Clasts	

									Canada Nama DUOF	D-1 40/6/22
4									Sample Name: PH05	Date: 10/6/22
			E	N	S	OL	_ U	M	Site Name: MCA 94 Incident Number: NAPP221253190	06
								Jb		
 	LITHOLOGIC / SOIL SAMPLING LOG								Job Number: 03D2057010	Nashari S. II
C	: ·					SAIVIPLING	LUG		Logged By: CS	Method: Backhoe Total Depth: 12'
			2.81441,			ith HACH Ch	de de Terre		Hole Diameter:	•
								orrection	PID for chloride and vapor, respec factors included.	tively. Chloride test
Moisture Content	Chloride	(mdd)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	scriptions
			ND			1 1 -	L - - - 1	sp-sm	Sand Red Brown	
			ND			5 -	_ 5 - -	sp-sm	Sand Red Brown	
			ND			9 -	_ - -	sp-sc	Sand Red/Brown w/ Clay	
			ND			12 <u> </u>	12 	spsm/cche	Sand White Brown w/ Clasts	
						1	- - -			
						-	- - -			
						- - -	- -			
						-	- - -			
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						-	-			



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2733-1

Laboratory Sample Delivery Group: Lea County NM

Client Project/Site: MCA 94

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 8/18/2022 9:48:24 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: MCA 94

Laboratory Job ID: 890-2733-1 SDG: Lea County NM

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Definitions/Glossary

Job ID: 890-2733-1 Client: Ensolum Project/Site: MCA 94 SDG: Lea County NM

Qualifiers

GC	VOA
Qua	lifier

*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.

Qualifier Description

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
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.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE) DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry) EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE) 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

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

NC Not Calculated

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

Negative / Absent NEG POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive **Quality Control** QC

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RI

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum Job ID: 890-2733-1
Project/Site: MCA 94 SDG: Lea County NM

Job ID: 890-2733-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2733-1

Receipt

The samples were received on 8/8/2022 3:56 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 6.2°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-18027-A-1-D). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS06 (890-2733-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: o-Xylene biased high in LCS. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-32053/1-A)

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32053 and analytical batch 880-32046 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample duplicate (LCSD) recovery was within acceptance limits.

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 was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) sample: (890-2732-A-1-B MS). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS07 (890-2733-7). 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 for preparation batch 880-31853 and analytical batch 880-31943 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31914 and analytical batch 880-31923 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300_ORGFM_28D: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 880-31914 and analytical batch 880-31923 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Chloride in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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

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Eurofins Carlsbad 8/18/2022

Lab Sample ID: 890-2733-1

Client Sample Results

Client: Ensolum

Project/Site: MCA 94

Job ID: 890-2733-1

SDG: Lea County NM

Client Sample ID: SS01

Date Collected: 08/08/22 11:00 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 13:59	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 13:59	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 13:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/12/22 08:33	08/12/22 13:59	1
o-Xylene	<0.00201	U *+	0.00201	mg/Kg		08/12/22 08:33	08/12/22 13:59	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/12/22 08:33	08/12/22 13:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			08/12/22 08:33	08/12/22 13:59	1
1,4-Difluorobenzene (Surr)	89		70 - 130			08/12/22 08:33	08/12/22 13:59	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/15/22 11:29	1
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	
							Allalyzeu	DIIFac
Total TPH	<50.0	U	50.0	mg/Kg	— <u> </u>		08/12/22 09:16	Dil Fac
Total TPH The standard Route Range			50.0	mg/Kg	=			
Method: 8015B NM - Diesel Ran	ge Organics (D	RO) (GC)					08/12/22 09:16	1
Method: 8015B NM - Diesel Ran Analyte	ge Organics (D	RO) (GC) Qualifier	RL	Unit	 	Prepared	08/12/22 09:16 Analyzed	Dil Fac
- -	ge Organics (D	RO) (GC) Qualifier					08/12/22 09:16	1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D	RO) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	08/12/22 09:16 Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D Result <50.0	RO) (GC) Qualifier U	RL 50.0	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared 08/10/22 15:10	08/12/22 09:16 Analyzed 08/11/22 13:31	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (D Result <50.0	RO) (GC) Qualifier U	RL 50.0	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 08/10/22 15:10 08/10/22 15:10	08/12/22 09:16 Analyzed 08/11/22 13:31 08/11/22 13:31	1 Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (D Result <50.0 <50.0	RO) (GC) Qualifier U	RL 50.0 50.0 50.0	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 08/10/22 15:10 08/10/22 15:10 08/10/22 15:10	08/12/22 09:16 Analyzed 08/11/22 13:31 08/11/22 13:31	Dil Face 1 1 1 Dil Face
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	ge Organics (D Result <50.0 <50.0 <50.0	RO) (GC) Qualifier U	RL 50.0 50.0 50.0 <i>Limits</i>	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 08/10/22 15:10 08/10/22 15:10 08/10/22 15:10 Prepared	08/12/22 09:16 Analyzed 08/11/22 13:31 08/11/22 13:31 08/11/22 13:31 Analyzed	Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	ge Organics (D Result <50.0 <50.0 <50.0 <80.0 %Recovery 102 112	RO) (GC) Qualifier U U Qualifier	RL 50.0 50.0 50.0 Limits 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 08/10/22 15:10 08/10/22 15:10 08/10/22 15:10 Prepared 08/10/22 15:10	08/12/22 09:16 Analyzed 08/11/22 13:31 08/11/22 13:31 Analyzed 08/11/22 13:31	
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	ge Organics (D Result <50.0 <50.0 <50.0 **Recovery 102 112 **romatography -	RO) (GC) Qualifier U U Qualifier	RL 50.0 50.0 50.0 Limits 70 - 130	Unit mg/Kg mg/Kg		Prepared 08/10/22 15:10 08/10/22 15:10 08/10/22 15:10 Prepared 08/10/22 15:10	08/12/22 09:16 Analyzed 08/11/22 13:31 08/11/22 13:31 Analyzed 08/11/22 13:31	Dil Fac

Client Sample ID: SS02

Date Collected: 08/08/22 11:10

Date Received: 08/08/22 15:56

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 14:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 14:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 14:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/12/22 08:33	08/12/22 14:19	1
o-Xylene	<0.00200	U *+	0.00200	mg/Kg		08/12/22 08:33	08/12/22 14:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/12/22 08:33	08/12/22 14:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/12/22 08:33	08/12/22 14:19	1

Eurofins Carlsbad

Lab Sample ID: 890-2733-2

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iiio Gariobaa

Matrix: Solid

Lab Sample ID: 890-2733-2

Client Sample Results

Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

Client Sample ID: SS02

Date Collected: 08/08/22 11:10 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Method: 8021B - Volatile O	rganic Compou	nds (GC)	(Continued)
Michiga: OUL 1B Volume C	i gaino compou	1145 (55)	(Goillinaca)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	08/12/22 08:33	08/12/22 14:19	1

ı	Mothodi	Total DTEV	- Total BTEX	Coloulation
ı	wethou.	TOTAL DIEV	- IUIAI DIEA	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			08/15/22 11:29	1

П			
	Method: 8015 NM - Diesel Range Organics (DRO) (CC	
ı	Welliou. 00 13 NW - Diesel Kalige Organics (DRO)	901	

Analyte		Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH		<50.0	U	50.0	mg/Kg			08/12/22 09:16	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 13:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 13:53	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 13:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	08/10/22 15	10 08/11/22 13:53	1
o-Terphenyl	97		70 - 130	08/10/22 15	10 08/11/22 13:53	1

Method: 300	0.0 - Anions,	Ion Chroma	tography - 🤄	Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	545	5.01	mg/Kg			08/11/22 06:48	1

Client Sample ID: SS03 Lab Sample ID: 890-2733-3 Matrix: Solid

Date Collected: 08/08/22 11:20 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Mathadi 0004D	Valatile Overen	ic Compounds (GC)
Memoo: Auzib	- voianie Urdan	ic Compounds (GC)

wethou: 8021B - volatile Orga	inic Compounds ((GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/12/22 08:33	08/12/22 15:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/12/22 08:33	08/12/22 15:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/12/22 08:33	08/12/22 15:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/12/22 08:33	08/12/22 15:42	1
o-Xylene	<0.00199	U *+	0.00199	mg/Kg		08/12/22 08:33	08/12/22 15:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/12/22 08:33	08/12/22 15:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			08/12/22 08:33	08/12/22 15:42	1
1,4-Difluorobenzene (Surr)	91		70 - 130			08/12/22 08:33	08/12/22 15:42	1

Mothod:	Total RT	EY - Tota	I DTEY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	ma/Ka			08/15/22 11:29	1

	Method: 8015 NM - Diesel	Range Organics (DRO	D) (GC)	۱
ı	Michiga. 00 to Min - Diese	i italige Organics (Ditt		,

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/12/22 09:16	1

Lab Sample ID: 890-2733-3

Job ID: 890-2733-1

Client: Ensolum Project/Site: MCA 94 SDG: Lea County NM

Client Sample ID: SS03

Date Collected: 08/08/22 11:20 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 14:15	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 14:15	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 14:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			08/10/22 15:10	08/11/22 14:15	1
o-Terphenyl	113		70 - 130			08/10/22 15:10	08/11/22 14:15	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
-			25.0	mg/Kg			08/11/22 06:57	5

Client Sample ID: SS04 Lab Sample ID: 890-2733-4 Date Collected: 08/08/22 11:30 Matrix: Solid

Date Received: 08/08/22 15:56

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 16:03	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 16:03	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 16:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/12/22 08:33	08/12/22 16:03	1
o-Xylene	<0.00201	U *+	0.00201	mg/Kg		08/12/22 08:33	08/12/22 16:03	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/12/22 08:33	08/12/22 16:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			08/12/22 08:33	08/12/22 16:03	1
1,4-Difluorobenzene (Surr)	83		70 - 130			08/12/22 08:33	08/12/22 16:03	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/15/22 11:29	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/12/22 09:16	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 14:37	1
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 14:37	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/10/22 15:10	08/11/22 14:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			08/10/22 15:10	08/11/22 14:37	1
o-Terphenyl	110		70 - 130			08/10/22 15:10	08/11/22 14:37	1

Client Sample Results

Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

Client Sample ID: SS04

Date Collected: 08/08/22 11:30 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chrom	natography - S	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	429		5.00	mg/Kg			08/11/22 07:06	1

Client Sample ID: SS05 Lab Sample ID: 890-2733-5 Matrix: Solid

Date Collected: 08/08/22 11:40 Date Received: 08/08/22 15:56

Method: 8021B - Volatile Organic	Compounds (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		08/12/22 08:33	08/12/22 16:23	
Toluene	<0.00199	U	0.00199	mg/Kg		08/12/22 08:33	08/12/22 16:23	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		08/12/22 08:33	08/12/22 16:23	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/12/22 08:33	08/12/22 16:23	
o-Xylene	< 0.00199	U *+	0.00199	mg/Kg		08/12/22 08:33	08/12/22 16:23	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/12/22 08:33	08/12/22 16:23	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	116		70 - 130			08/12/22 08:33	08/12/22 16:23	-
1,4-Difluorobenzene (Surr)	89		70 - 130			08/12/22 08:33	08/12/22 16:23	
Method: Total BTEX - Total BTE)	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/15/22 11:29	
Method: 8015 NM - Diesel Range Analyte Total TPH	•	Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/12/22 09:16	Dil Fa
				3. 3				
Method: 8015B NM - Diesel Rang Analyte	•	RO) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 14:58	
Diesel Range Organics (Over C10-C28)	55.6		49.9	mg/Kg		08/10/22 15:10	08/11/22 14:58	,
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 14:58	,
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	102		70 - 130			08/10/22 15:10	08/11/22 14:58	
	110		70 - 130			08/10/22 15:10	08/11/22 14:58	
o-Terphenyl								
o-Terphenyl Method: 300.0 - Anions, Ion Chro		Soluble						
	omatography -	Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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Lab Sample ID: 890-2733-4

Lab Sample ID: 890-2733-6

Client: Ensolum Job ID: 890-2733-1
Project/Site: MCA 94 SDG: Lea County NM

Client Sample ID: SS06

Date Collected: 08/08/22 11:50 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 16:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 16:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 16:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/12/22 08:33	08/12/22 16:44	1
o-Xylene	<0.00200	U *+	0.00200	mg/Kg		08/12/22 08:33	08/12/22 16:44	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/12/22 08:33	08/12/22 16:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			08/12/22 08:33	08/12/22 16:44	1
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130			08/12/22 08:33	08/12/22 16:44	1
- Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/15/22 11:29	1
Analyte Total TDU		Qualifier	RL 40.0	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/12/22 09:16	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 15:20	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 15:20	1
C10-C28)	40.0		40.0	" -		00/10/00 15 10	00/44/00 45 00	
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 15:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			08/10/22 15:10	08/11/22 15:20	1
o-Terphenyl	109		70 - 130			08/10/22 15:10	08/11/22 15:20	1
-								
	omatography -	Soluble						
Method: 300.0 - Anions, Ion Chro	• • •	Soluble Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac

Client Sample ID: SS07

Date Collected: 08/08/22 12:00 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 17:04	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 17:04	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/12/22 08:33	08/12/22 17:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/12/22 08:33	08/12/22 17:04	1
o-Xylene	<0.00201	U *+	0.00201	mg/Kg		08/12/22 08:33	08/12/22 17:04	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/12/22 08:33	08/12/22 17:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/12/22 08:33	08/12/22 17:04	1

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Lab Sample ID: 890-2733-7

2

3

7

4.0

46

13

no Ganobaa

Matrix: Solid

Lab Sample ID: 890-2733-7

08/17/22 18:18

Client Sample Results

Client: Ensolum

Project/Site: MCA 94

Job ID: 890-2733-1

SDG: Lea County NM

Client Sample ID: SS07

Date Collected: 08/08/22 12:00 Date Received: 08/08/22 15:56

Sample Depth: 0.5

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	87		70 - 130			08/12/22 08:33	08/12/22 17:04	1
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/15/22 11:29	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/12/22 09:16	1
Analyte		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang	ae Organics (D	RO) (GC)						
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 16:04	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 16:04	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/10/22 15:10	08/11/22 16:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			08/10/22 15:10	08/11/22 16:04	1
o-Terphenyl	141	S1+	70 - 130			08/10/22 15:10	08/11/22 16:04	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						

4.99

mg/Kg

5.76

Surrogate Summary

Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-17955-A-8 MS	Matrix Spike	145 S1+	89	
880-17955-A-8 MSD	Matrix Spike Duplicate	137 S1+	92	
880-18027-A-1-B MS	Matrix Spike	116	98	
880-18027-A-1-C MSD	Matrix Spike Duplicate	122	94	
890-2733-1	SS01	120	89	
890-2733-2	SS02	119	91	
890-2733-3	SS03	115	91	
890-2733-4	SS04	116	83	
890-2733-5	SS05	116	89	
890-2733-6	SS06	101	64 S1-	
890-2733-7	SS07	117	87	
LCS 880-32046/34	Lab Control Sample	118	99	
LCS 880-32053/1-A	Lab Control Sample	129	95	
LCSD 880-32046/35	Lab Control Sample Dup	116	94	
LCSD 880-32053/2-A	Lab Control Sample Dup	108	99	
MB 880-32046/39	Method Blank	101	83	
	Method Blank	99	82	

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2732-A-1-B MS	Matrix Spike	71	67 S1-	
890-2732-A-1-C MSD	Matrix Spike Duplicate	73	71	
890-2733-1	SS01	102	112	
890-2733-2	SS02	91	97	
890-2733-3	SS03	100	113	
890-2733-4	SS04	102	110	
890-2733-5	SS05	102	110	
890-2733-6	SS06	102	109	
890-2733-7	SS07	122	141 S1+	
LCS 880-31853/2-A	Lab Control Sample	103	103	
LCSD 880-31853/3-A	Lab Control Sample Dup	119	122	
	Method Blank	93	112	

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32046/39

Matrix: Solid

Analysis Batch: 32046

Client Sam	ple ID: I	Metho	d Blank
	Prep T	ype:	Γotal/NA

мв мв Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Benzene <0.00200 U 0.00200 mg/Kg 08/12/22 22:01 Toluene <0.00200 U 0.00200 mg/Kg 08/12/22 22:01 Ethylbenzene <0.00200 U 0.00200 08/12/22 22:01 mg/Kg m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 08/12/22 22:01 o-Xylene <0.00200 U 0.00200 mg/Kg 08/12/22 22:01 Xylenes, Total <0.00400 U 0.00400 08/12/22 22:01 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		08/12/22 22:01	1
1,4-Difluorobenzene (Surr)	83		70 - 130		08/12/22 22:01	1

Lab Sample ID: LCS 880-32046/34

Matrix: Solid

Analysis Batch: 32046

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

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09686 mg/Kg 97 70 - 130 Toluene 0.100 0.09575 mg/Kg 96 70 - 130 Ethylbenzene 0.100 0.1081 mg/Kg 108 70 - 130 70 - 130 0.200 m-Xylene & p-Xylene 0.2217 mg/Kg 111 0.100 o-Xylene 0.1221 mg/Kg 122 70 - 130

Spike

Added

0.100

0.100

0.100

0.200

0.100

LCSD LCSD

0.09131

0.09500

0.1048

0.2171

0.1198

Result Qualifier

mg/Kg

mg/Kg

LCS LCS

Surrogate	%Recovery Qu	alifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-32046/35

Matrix: Solid

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 32046

Client Sample II	D: Lab	Contr	ol Sample D)up
		Prep	Type: Total	/NA

RPD %Rec Unit %Rec Limits RPD Limit mg/Kg 91 70 - 130 35 6 mg/Kg 95 70 - 130 35 mg/Kg 105 70 - 130 35 3

70 - 130

70 - 130

109

120

LCSD LCSD %Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 116 70 - 130 1,4-Difluorobenzene (Surr) 94 70 - 130

Lab Sample ID: 880-17955-A-8 MS

Matrix: Solid

Analysis Batch: 32046

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

_	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00200	U	0.100	0.1003		mg/Kg		100	70 - 130
Toluene	<0.00200	U	0.100	0.1126		mg/Kg		113	70 - 130

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QC Sample Results

Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

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

Lab Sample ID: 880-17955-A-8 MS

Lab Sample ID: 880-17955-A-8 MSD

Matrix: Solid

Analysis Batch: 32046

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00200 U 0.100 0.1293 129 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00400 UF1 0.200 0.2794 F1 mg/Kg 140 70 - 130 0.100 0.1588 F1 o-Xylene <0.00200 UF1 mg/Kg 159 70 - 130

MS MS

Surrogate	%Recovery	Qualifier	Limits	
4-Bromofluorobenzene (Surr)	145	S1+	70 - 130	
1,4-Difluorobenzene (Surr)	89		70 - 130	

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analysis Batch: 32046

Matrix: Solid

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.100	0.09242		mg/Kg		92	70 - 130	8	35
Toluene	<0.00200	U	0.100	0.1014		mg/Kg		101	70 - 130	10	35
Ethylbenzene	<0.00200	U	0.100	0.1197		mg/Kg		120	70 - 130	8	35
m-Xylene & p-Xylene	<0.00400	U F1	0.200	0.2496		mg/Kg		125	70 - 130	11	35
o-Xylene	<0.00200	U F1	0.100	0.1400	F1	mg/Kg		140	70 - 130	13	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: MB 880-32053/5-A

Matrix: Solid

Analysis Batch: 32046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32053

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 10:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 10:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 10:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/12/22 08:33	08/12/22 10:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/12/22 08:33	08/12/22 10:53	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/12/22 08:33	08/12/22 10:53	1

MB MB

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99	70 - 130	08/12/22 08:33	08/12/22 10:53	1
1,4-Difluorobenzene (Surr)	82	70 - 130	08/12/22 08:33	08/12/22 10:53	1

Lab Sample ID: LCS 880-32053/1-A

Matrix: Solid

Analysis Batch: 32046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 32053

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09482		mg/Kg		95	70 - 130	
Toluene	0.100	0.1002		mg/Kg		100	70 - 130	
Ethylbenzene	0.100	0.1112		mg/Kg		111	70 - 130	
m-Xylene & p-Xylene	0.200	0.2383		mg/Kg		119	70 - 130	

QC Sample Results

Client: Ensolum

Job ID: 890-2733-1

Project/Site: MCA 94

SDG: Lea County NM

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

Lab Sample ID: LCS 880-32053/1-A

Matrix: Solid

Analysis Batch: 32046

Spike LCS LCS

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

Prep Batch: 32053

**Rec

 Analyte o-Xylene
 Spike LCS LCS
 LCS MRec

 2
 Added or Adde

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 129
 70 - 130

 1,4-Difluorobenzene (Surr)
 95
 70 - 130

Lab Sample ID: LCSD 880-32053/2-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 32046 Prep Batch: 32053

Spike LCSD LCSD RPD RPD Analyte Added Result Qualifier Unit %Rec Limits Limit D Benzene 0.100 0.1031 mg/Kg 103 70 - 130 8 35 Toluene 0.100 0.09994 mg/Kg 100 70 - 130 0 35 Ethylbenzene 0.100 0.1057 mg/Kg 106 70 - 130 5 35 m-Xylene & p-Xylene 0.200 0.2197 mg/Kg 110 70 - 130 8 35 0.100 0.1198 120 70 - 130 35 o-Xylene mg/Kg 10

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 108
 70 - 130

 1,4-Difluorobenzene (Surr)
 99
 70 - 130

Lab Sample ID: 880-18027-A-1-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 32046 Prep Batch: 32053

MS MS Sample Sample Spike %Rec Result Qualifier Added Result Qualifier Analyte Unit D %Rec Limits Benzene < 0.00199 U 0.101 0.09679 mg/Kg 95 70 - 130 Toluene 0.0148 0.101 0.09379 mg/Kg 78 70 - 130 Ethylbenzene 0.0416 F1 0.101 0.1031 F1 mg/Kg 61 70 - 130 m-Xylene & p-Xylene 0.117 F1 0.202 0.2156 F1 mg/Kg 49 70 - 130 o-Xylene 0.0679 *+ F1 0.101 0.1183 F1 mg/Kg 50 70 - 130

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 116
 70 - 130

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

Lab Sample ID: 880-18027-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 32046 Prep Batch: 32053

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.100	0.1032		mg/Kg		102	70 - 130	6	35
Toluene	0.0148		0.100	0.1078		mg/Kg		93	70 - 130	14	35
Ethylbenzene	0.0416	F1	0.100	0.1203		mg/Kg		79	70 - 130	15	35
m-Xylene & p-Xylene	0.117	F1	0.200	0.2554	F1	mg/Kg		69	70 - 130	17	35
o-Xylene	0.0679	*+ F1	0.100	0.1419		mg/Kg		74	70 - 130	18	35

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Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

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

Lab Sample ID: 880-18027-A-1-C MSD

Matrix: Solid

Analysis Batch: 32046

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 32053

MSD MSD

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 122 70 - 130 1,4-Difluorobenzene (Surr) 94 70 - 130

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

Lab Sample ID: MB 880-31853/1-A

Matrix: Solid

Analysis Batch: 31943

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31853

мв мв

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 08/09/22 15:10 08/11/22 10:17 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 08/09/22 15:10 08/11/22 10:17 C10-C28) 08/09/22 15:10 08/11/22 10:17 Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	08/09/22 15:10	08/11/22 10:17	1
o-Terphenyl	112		70 - 130	08/09/22 15:10	08/11/22 10:17	1

Lab Sample ID: LCS 880-31853/2-A

Matrix: Solid

Analysis Batch: 31943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 31853

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	925.9		mg/Kg		93	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	926.0		mg/Kg		93	70 - 130	
C10-C28)								

LCS LCS

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

Lab Sample ID: LCSD 880-31853/3-A

Matrix: Solid

Analysis Batch: 31943

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31853

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1030		mg/Kg		103	70 - 130	11	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1070		mg/Kg		107	70 - 130	14	20
C10-C28)									

LCSD LCSD

Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctane	119	70 - 130
o-Terphenvl	122	70 - 130

Job ID: 890-2733-1

Client: Ensolum Project/Site: MCA 94

SDG: Lea County NM

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

Lab Sample ID: 890-2732-A-1-B MS

Lab Sample ID: 890-2732-A-1-C MSD

Matrix: Solid

Analysis Batch: 31943

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 31853

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U	999	974.0		mg/Kg		95	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U F1	999	623.0	F1	mg/Kg		62	70 - 130	
040,000)										

C10-C28)

Matrix: Solid

o-Terphenyl

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	67	S1-	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 31853

Analysis Batch: 31943 Spike MSD MSD %Rec RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit <49.9 U 999 929.9 91 70 - 130 5 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 UF1 999 668.7 F1 mg/Kg 67 70 - 130 7 20 C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 73 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31914/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

70 - 130

Matrix: Solid

Analysis Batch: 31923

MB MB

71

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			08/11/22 03:07	1

Lab Sample ID: LCS 880-31914/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 31923

	Spike	LUS	LUS				70Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	250	243.2		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-31914/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 31923

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	253.4		mg/Kg	_	101	90 - 110	4	20

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QC Sample Results

Job ID: 890-2733-1 Client: Ensolum Project/Site: MCA 94 SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-17882-A-7-A MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 31923

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 1710 F1 1250 3090 F1 mg/Kg 111 90 - 110 20

Lab Sample ID: 880-17882-A-7-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 31923

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Chloride 1710 F1 1250 3064 mg/Kg 109 90 - 110

Lab Sample ID: MB 880-31858/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 31926

мв мв Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 08/17/22 14:54 mg/Kg

Lab Sample ID: LCS 880-31858/2-A Client Sample ID: Lab Control Sample **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 31926

LCS LCS Spike %Rec Added Analyte Result Qualifier Unit %Rec Limits Chloride 250 257.0 103 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-31858/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 31926

LCSD LCSD Spike %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 257.1 mg/Kg 103 90 - 110 20

Lab Sample ID: 890-2732-A-1-F MS Client Sample ID: Matrix Spike Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 31926

Sample Spike MS MS %Rec Sample Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Chloride 7.85 250 276.5 mg/Kg 107 90 - 110

Lab Sample ID: 890-2732-A-1-F MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 31926

MSD MSD %Rec RPD Sample Sample Spike Result Qualifier Added Analyte Result Qualifier Limits RPD Limit Unit D %Rec Chloride 7.85 250 276.4 mg/Kg 107 90 - 110 20

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Prep Type: Soluble

Client: Ensolum

Project/Site: MCA 94

Job ID: 890-2733-1

SDG: Lea County NM

GC VOA

Analysis Batch: 32046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Total/NA	Solid	8021B	32053
890-2733-2	SS02	Total/NA	Solid	8021B	32053
890-2733-3	SS03	Total/NA	Solid	8021B	32053
890-2733-4	SS04	Total/NA	Solid	8021B	32053
890-2733-5	SS05	Total/NA	Solid	8021B	32053
890-2733-6	SS06	Total/NA	Solid	8021B	32053
890-2733-7	SS07	Total/NA	Solid	8021B	32053
MB 880-32046/39	Method Blank	Total/NA	Solid	8021B	
MB 880-32053/5-A	Method Blank	Total/NA	Solid	8021B	32053
LCS 880-32046/34	Lab Control Sample	Total/NA	Solid	8021B	
LCS 880-32053/1-A	Lab Control Sample	Total/NA	Solid	8021B	32053
LCSD 880-32046/35	Lab Control Sample Dup	Total/NA	Solid	8021B	
LCSD 880-32053/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32053
880-17955-A-8 MS	Matrix Spike	Total/NA	Solid	8021B	
880-17955-A-8 MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	
880-18027-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	32053
880-18027-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32053

Prep Batch: 32053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Total/NA	Solid	5035	
890-2733-2	SS02	Total/NA	Solid	5035	
890-2733-3	SS03	Total/NA	Solid	5035	
890-2733-4	SS04	Total/NA	Solid	5035	
890-2733-5	SS05	Total/NA	Solid	5035	
890-2733-6	SS06	Total/NA	Solid	5035	
890-2733-7	SS07	Total/NA	Solid	5035	
MB 880-32053/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32053/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32053/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18027-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-18027-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Total/NA	Solid	Total BTEX	
890-2733-2	SS02	Total/NA	Solid	Total BTEX	
890-2733-3	SS03	Total/NA	Solid	Total BTEX	
890-2733-4	SS04	Total/NA	Solid	Total BTEX	
890-2733-5	SS05	Total/NA	Solid	Total BTEX	
890-2733-6	SS06	Total/NA	Solid	Total BTEX	
890-2733-7	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 31853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Total/NA	Solid	8015NM Prep	
890-2733-2	SS02	Total/NA	Solid	8015NM Prep	
890-2733-3	SS03	Total/NA	Solid	8015NM Prep	
890-2733-4	SS04	Total/NA	Solid	8015NM Prep	

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Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 31853 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-5	SS05	Total/NA	Solid	8015NM Prep	
890-2733-6	SS06	Total/NA	Solid	8015NM Prep	
890-2733-7	SS07	Total/NA	Solid	8015NM Prep	
MB 880-31853/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31853/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31853/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2732-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2732-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 31943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Total/NA	Solid	8015B NM	31853
890-2733-2	SS02	Total/NA	Solid	8015B NM	31853
890-2733-3	SS03	Total/NA	Solid	8015B NM	31853
890-2733-4	SS04	Total/NA	Solid	8015B NM	31853
890-2733-5	SS05	Total/NA	Solid	8015B NM	31853
890-2733-6	SS06	Total/NA	Solid	8015B NM	31853
890-2733-7	SS07	Total/NA	Solid	8015B NM	31853
MB 880-31853/1-A	Method Blank	Total/NA	Solid	8015B NM	31853
LCS 880-31853/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31853
LCSD 880-31853/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31853
890-2732-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	31853
890-2732-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	31853

Analysis Batch: 32057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Total/NA	Solid	8015 NM	
890-2733-2	SS02	Total/NA	Solid	8015 NM	
890-2733-3	SS03	Total/NA	Solid	8015 NM	
890-2733-4	SS04	Total/NA	Solid	8015 NM	
890-2733-5	SS05	Total/NA	Solid	8015 NM	
890-2733-6	SS06	Total/NA	Solid	8015 NM	
890-2733-7	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 31858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-7	SS07	Soluble	Solid	DI Leach	
MB 880-31858/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31858/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31858/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2732-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2732-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 31914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Soluble	Solid	DI Leach	
890-2733-2	SS02	Soluble	Solid	DI Leach	
890-2733-3	SS03	Soluble	Solid	DI Leach	
890-2733-4	SS04	Soluble	Solid	DI Leach	

Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 31914 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-5	SS05	Soluble	Solid	DI Leach	
890-2733-6	SS06	Soluble	Solid	DI Leach	
MB 880-31914/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31914/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31914/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17882-A-7-A MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-17882-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	

Analysis Batch: 31923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-1	SS01	Soluble	Solid	300.0	31914
890-2733-2	SS02	Soluble	Solid	300.0	31914
890-2733-3	SS03	Soluble	Solid	300.0	31914
890-2733-4	SS04	Soluble	Solid	300.0	31914
890-2733-5	SS05	Soluble	Solid	300.0	31914
890-2733-6	SS06	Soluble	Solid	300.0	31914
MB 880-31914/1-A	Method Blank	Soluble	Solid	300.0	31914
LCS 880-31914/2-A	Lab Control Sample	Soluble	Solid	300.0	31914
LCSD 880-31914/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31914
880-17882-A-7-A MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31914
880-17882-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	31914

Analysis Batch: 31926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2733-7	SS07	Soluble	Solid	300.0	31858
MB 880-31858/1-A	Method Blank	Soluble	Solid	300.0	31858
LCS 880-31858/2-A	Lab Control Sample	Soluble	Solid	300.0	31858
LCSD 880-31858/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31858
890-2732-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	31858
890-2732-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31858

Job ID: 890-2733-1 SDG: Lea County NM

Client Sample ID: SS01

Client: Ensolum

Project/Site: MCA 94

Lab Sample ID: 890-2733-1

Matrix: Solid

Date Collected: 08/08/22 11:00 Date Received: 08/08/22 15:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	32053	08/12/22 08:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32046	08/12/22 13:59	SM	EET MID
Total/NA	Analysis	Total BTEX		1			32163	08/15/22 11:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			32057	08/12/22 09:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31853	08/10/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1			31943	08/11/22 13:31	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	31914	08/10/22 13:18	AJ	EET MID
Soluble	Analysis	300.0		10			31923	08/11/22 06:20	CH	EET MID

Client Sample ID: SS02 Lab Sample ID: 890-2733-2

Date Collected: 08/08/22 11:10

Date Received: 08/08/22 15:56

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	32053	08/12/22 08:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32046	08/12/22 14:19	SM	EET MID
Total/NA	Analysis	Total BTEX		1			32163	08/15/22 11:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			32057	08/12/22 09:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31853	08/10/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1			31943	08/11/22 13:53	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	31914	08/10/22 13:18	AJ	EET MID
Soluble	Analysis	300.0		1			31923	08/11/22 06:48	CH	EET MID

Client Sample ID: SS03 Lab Sample ID: 890-2733-3

Date Collected: 08/08/22 11:20

Date Received: 08/08/22 15:56

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	32053	08/12/22 08:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32046	08/12/22 15:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			32163	08/15/22 11:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			32057	08/12/22 09:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31853	08/10/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1			31943	08/11/22 14:15	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31914	08/10/22 13:18	AJ	EET MID
Soluble	Analysis	300.0		5			31923	08/11/22 06:57	CH	EET MID

Client Sample ID: SS04 Lab Sample ID: 890-2733-4

Date Collected: 08/08/22 11:30 Matrix: Solid
Date Received: 08/08/22 15:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32053	08/12/22 08:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32046	08/12/22 16:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			32163	08/15/22 11:29	SM	EET MID

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Released to Imaging: 1/20/2023 9:23:32 AM

Job ID: 890-2733-1 SDG: Lea County NM

Project/Site: MCA 94 **Client Sample ID: SS04**

Client: Ensolum

Lab Sample ID: 890-2733-4

Matrix: Solid

Date Collected: 08/08/22 11:30 Date Received: 08/08/22 15:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			32057	08/12/22 09:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31853	08/10/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1			31943	08/11/22 14:37	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	31914	08/10/22 13:18	AJ	EET MID
Soluble	Analysis	300.0		1			31923	08/11/22 07:06	CH	EET MID

Client Sample ID: SS05 Lab Sample ID: 890-2733-5

Date Collected: 08/08/22 11:40 **Matrix: Solid** Date Received: 08/08/22 15:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	32053	08/12/22 08:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32046	08/12/22 16:23	SM	EET MID
Total/NA	Analysis	Total BTEX		1			32163	08/15/22 11:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			32057	08/12/22 09:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31853	08/10/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1			31943	08/11/22 14:58	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	31914	08/10/22 13:18	AJ	EET MID
Soluble	Analysis	300.0		10			31923	08/11/22 07:15	CH	EET MID

Client Sample ID: SS06 Lab Sample ID: 890-2733-6

Date Collected: 08/08/22 11:50 **Matrix: Solid** Date Received: 08/08/22 15:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	32053	08/12/22 08:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32046	08/12/22 16:44	SM	EET MID
Total/NA	Analysis	Total BTEX		1			32163	08/15/22 11:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			32057	08/12/22 09:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31853	08/10/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1			31943	08/11/22 15:20	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	31914	08/10/22 13:18	AJ	EET MID
Soluble	Analysis	300.0		10			31923	08/11/22 07:24	CH	EET MID

Client Sample ID: SS07 Lab Sample ID: 890-2733-7

Date Collected: 08/08/22 12:00 **Matrix: Solid** Date Received: 08/08/22 15:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	32053	08/12/22 08:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32046	08/12/22 17:04	SM	EET MID
Total/NA	Analysis	Total BTEX		1			32163	08/15/22 11:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			32057	08/12/22 09:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	31853	08/10/22 15:10	DM	EET MID
Total/NA	Analysis	8015B NM		1			31943	08/11/22 16:04	SM	EET MID

Lab Chronicle

Client: Ensolum Job ID: 890-2733-1 Project/Site: MCA 94 SDG: Lea County NM

Client Sample ID: SS07 Lab Sample ID: 890-2733-7

Date Collected: 08/08/22 12:00 Matrix: Solid

Date Received: 08/08/22 15:56

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	31858	08/09/22 15:40	AJ	EET MID
Soluble	Analysis	300.0		1			31926	08/17/22 18:18	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 94
Job ID: 890-2733-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report, bu	it the laboratory is not certifi	ied by the governing authority. This list ma	av include analytes for	
the agency does not of		,	ieu sy ale gerelling aanenly.	ay morado dilarytoo lor	
the agency does not of Analysis Method		Matrix	Analyte	ay molado analytoo tor	
0 ,	fer certification.	•	, , ,		

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Method Summary

Client: Ensolum

Project/Site: MCA 94

Job ID: 890-2733-1

SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-2733-1

SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2733-1	SS01	Solid	08/08/22 11:00	08/08/22 15:56	0.5
890-2733-2	SS02	Solid	08/08/22 11:10	08/08/22 15:56	0.5
890-2733-3	SS03	Solid	08/08/22 11:20	08/08/22 15:56	0.5
890-2733-4	SS04	Solid	08/08/22 11:30	08/08/22 15:56	0.5
890-2733-5	SS05	Solid	08/08/22 11:40	08/08/22 15:56	0.5
890-2733-6	SS06	Solid	08/08/22 11:50	08/08/22 15:56	0.5
890-2733-7	SS07	Solid	08/08/22 12:00	08/08/22 15:56	0.5

Suns

(d) (J)

5.8.22 155

eurofins: **Environment Testing**

Phone:

Project Manager:

Bill to: (if different)

Kalei Jennings

Company Name:

Ensolum

3122 National Parks HWY

Company Name:

Ensolum Kalei Jennings

Address:

3122 National Parks HWY

Sampler's Name:

Chain of Custody

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

Work Order No:
www.xenco.com Page / of /
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

Total 2007 Form Section Sec	City, State ZIP: C	Carlsbad, NM 88220			City, State ZIP:		Carls	Carlsbad, NM 88220	M 8822		Reporting: Level II Level III PST/UST TRRP Level IV	TRRP L Level IV
None: NO DI Water: H ₂ O Cool: Cool H ₂ SO ₄ : H ₂ NaHSO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NASO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments Incident Numbers NAPP2212531906 A Sr TI Sn U V Zn 245.1 / 7470 / 7471 Date/Time		17-683-2503		Email:	kjennings@e	nsolu	n.com			Delive		Other:
None: NO None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments Incident Numbers NAPP2212531906 a Sr TI Sn U V Zn 245: 1 / 7470 / 7471 Date/Time	roject Name:	MCA 94		Turn	Around						Pro	eservative Codes
Cool: Cool H2CU: HC H2SQ4: H2 H3PO4: HP NaHSO4: NABIS Na3S2O3: NASO3 Zn Acetate+NAOH NAOH+Ascorbic A Sample Cc Sample Cc Sample Cc Sample Cc ON APP2211 NAPP2211 A Sr TI Sn U V 245.1/7470 / 7	roject Number:			☑ Routine	Rush	Code		Г			None: N	
HCL: HC HNO3: HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NASO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments Incident Numbers NAPP2212531906 NAPP2212531906 a Sr TI Sn U V Zn 245.1 / 7470 / 7471 Date/Time	roject Location:	Lea County,	M	Due Date:	5 Day TAT						Cool: Co	<u>_</u>
	sampler's Name:	Gilbert Mor	eno	TAT starts the	e day received b	~					HCL: HC	
H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments Incident Numbers NAPP2212531906 a Sr TI Sn U V Zn 245.1 / 7470 / 7471 Date/Time)C #			the lab, if rec	eived by 4:30pm	L						
	SAMPLE RECEIP			Wet Ice:		nete	.0)				H ₃ PO ₄ : I	Ŧ
Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments Incident Numbers NAPP2212531906 a Sr TI Sn U V Zn 245.1/7470 / 7471 Date/Time	amples Received Into	Teg	Thermome	ter ID:	1707M-00-	rar	300				NaHSO	* NABIS
	Cooler Custody Seals:	No		Factor:	-0.0	Pa	PA:	П		890-2733 Chair of Citato		3: NaSC3
Sample Comments Incident Numbers NAPP2212531906 ASr TI Sn U V Zn 245.1 / 7470 / 7471 Date/Time	Sample Custody Seals	Yes No	$\mathbf{-}$	re Reading:		-	S (E			COSTO CHAIL OF CASIO		ate+NaOH: Zn
Incident Numbers NAPP2212531906 a Sr TI Sn U V Zn 245.1 / 7470 / 7471 Date/Time	otal Containers:		Corrected	Temperature:	6.9	<u></u>	IDE	015)	8021		NaOH+,	Ascorbic Acid: SAPC
Incident NAPP22 a Sr TI Sn U 245.1/7470 /	Sample Identi			Time Sampled				TPH (8	BTEX (\(\times_{\text{a}} \)	ample Comments
Incident NAPP22 a Sr Tl Sn U 245.1/7470 /	SS01	S	8.8.22	11:00			×	×	×			
Incident NAPP22 a Sr Tl Sn U 245.1/7470 /	\$\$02		8.8.22	11:10			×	×	×			
NAPP22 a Sr TI Sn U 245.1/7470 /	\$\$03		8.8.22	11:20			×	×	×		3	ncident Numbers
S 8.8.22 11:40 0.5' Grab/ 1 X X X X S S 8.8.22 11:50 0.5' Grab/ 1 X X X X X S S 8.8.22 11:50 0.5' Grab/ 1 X X X X X X X X X X X X X X X X X X	SS04		8.8.22	11:30			×	×	×		Z	IAPP2212531906
a Sr Tl Sn U 245.1/7470 /	SS05		8.8.22	11:40			×	×	×			
a Sr Tl Sn U 245.1/7470 /	SS06		8.8.22	11:50			×	×	×			
a Sr TI Sn U 245.1/7470 /	\$807	S	8.8.22	h 12:00		Т	×	×	×			
a Sr Tl Sn U 245.1/7470 /			2	Sus								
a Sr TI Sn U 245.1/7470 /			1	0		$ \cdot $						
a Sr Tl Sn U 245.1/7470 / 2epinore)	(
245.1/7470 / re)	Total 200.7 / 601			- 11	- 11	- 11	ဇ္ဗ	Ва		Ca Cr Co Cu Fe Pb	∩ MoNiK Se Ag SiO ₂ Na Sr TI	Sn U V Zn
re)	Circle Method(s) and	d Metal(s) to be ana	lyzed	TCLP / S	PLP 6010: 8	RCRA	Sb	As Ba	Be C	11		7470 / 7471
Ге)	Votice: Signature of this do	ocument and relinquishme	int of samples co	onstitutes a valid	purchase order fr	om cilen	t compa	ny to Eur	ofins Xe	co, its affiliates and subcontractors. It assign noursed by the client if such losses are due to	s standard terms and conditions circumstances beyond the control	
Received by: (Signature) Date/Time Relinquished by: (Signature) Received by: (Signature)	of Eurofins Xenco. A minir	num charge of \$86.00 will	be applied to ear	ch project and a	charge of \$5 for ea	ch sam	ole subm	itted to I	urofins	enco, but not analyzed. These terms will be er	nforced unless previously negotiated.	
	Relinquis/jed by:	(Signature)	Receiv	ed by: (Signa	ature)		Date	/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time

Revised Date 08/25/2020 Rev 2020 2

8/18/2022

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2733-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 2733 List Number: 1

Creator: Stutzman, Amanda

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

<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2733-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 08/10/22 10:29 AM

Login Number: 2733 List Number: 2 Creator: Teel, Brianna

<6mm (1/4").

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	True	





ANALYTICAL REPORT

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

Laboratory Job ID: 890-3142-1

Laboratory Sample Delivery Group: 03D2057010

Client Project/Site: MCA 94

For:

eurofins 🔅

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

10/13/2022 3:12:50 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Have a Question?

EOL

.....LINKS

Review your project results through

Received by OCD: 12/22/2022 12:24:30 PM

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 1/20/2023 9:23:32 AM This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

Client: Ensolum Laboratory Job ID: 890-3142-1 Project/Site: MCA 94

SDG: 03D2057010

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Definitions/Glossary

 Client: Ensolum
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

Qualifiers

GC VOA

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

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
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

Job ID: 890-3142-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3142-1

Receipt

The samples were received on 10/5/2022 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-3142-1), PH01 (890-3142-2), PH01 (890-3142-3) and PH01 (890-3142-4).

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36242 and analytical batch 880-36598 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.

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Client Sample Results

 Client: Ensolum
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH01 Lab Sample ID: 890-3142-1

Date Collected: 10/04/22 09:00 Matrix: Solid
Date Received: 10/05/22 09:10

Sample Depth: 10'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/12/22 00:30	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/12/22 00:30	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/12/22 00:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 13:48	10/12/22 00:30	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/12/22 00:30	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 13:48	10/12/22 00:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			10/10/22 13:48	10/12/22 00:30	1
1,4-Difluorobenzene (Surr)	96		70 - 130			10/10/22 13:48	10/12/22 00:30	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/12/22 11:46	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	- 40.0							
- -	<49.9	U	49.9	mg/Kg			10/07/22 09:47	1
Method: SW846 8015B NM - Dies				mg/Kg			10/07/22 09:47	1
- -	sel Range Orga			mg/Kg Unit		Prepared	10/07/22 09:47 Analyzed	1 Dil Fac
Thethod: SW846 8015B NM - Dies	sel Range Orga	nics (DRO) Qualifier	(GC)		<u>D</u>	Prepared 10/06/22 08:43		·
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga Result	nics (DRO) Qualifier	(GC)	Unit	<u>D</u>		Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9	Unit mg/Kg	<u>D</u>	10/06/22 08:43	Analyzed 10/06/22 15:32	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9	Unit mg/Kg mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43	Analyzed 10/06/22 15:32 10/06/22 15:32	Dil Fac 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	sel Range Orga Result <49.9 <49.9	nics (DRO) Qualifier U	(GC) RL 49.9 49.9 49.9	Unit mg/Kg mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43	Analyzed 10/06/22 15:32 10/06/22 15:32 10/06/22 15:32	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result <49.9 <49.9 <49.9 %Recovery	nics (DRO) Qualifier U	(GC) RL 49.9 49.9 49.9 Limits	Unit mg/Kg mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared	Analyzed 10/06/22 15:32 10/06/22 15:32 10/06/22 15:32 Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	sel Range Orga Result <49.9	nics (DRO) Qualifier U U Qualifier	(GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared 10/06/22 08:43	Analyzed 10/06/22 15:32 10/06/22 15:32 10/06/22 15:32 Analyzed 10/06/22 15:32	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Sel Range Orga Result <49.9 <49.9 <49.9 **Recovery 88 95 Sel, Ion Chromato	nics (DRO) Qualifier U U Qualifier	(GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	Unit mg/Kg mg/Kg	D	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared 10/06/22 08:43	Analyzed 10/06/22 15:32 10/06/22 15:32 10/06/22 15:32 Analyzed 10/06/22 15:32	Dil Fac

Client Sample ID: PH01 Lab Sample ID: 890-3142-2

Date Collected: 10/04/22 09:30 Date Received: 10/05/22 09:10

Sample Depth: 12'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/12/22 00:51	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/12/22 00:51	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/12/22 00:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/10/22 13:48	10/12/22 00:51	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/12/22 00:51	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/10/22 13:48	10/12/22 00:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/10/22 13:48	10/12/22 00:51	

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Matrix: Solid

Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH01 Lab Sample ID: 890-3142-2 Date Collected: 10/04/22 09:30

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 12'

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	99	70 - 130	10/10/22 13:48	10/12/22 00:51	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			10/12/22 11:46	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			10/07/22 09:47	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		10/06/22 08:43	10/06/22 15:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 15:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 15:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88	70 - 130	10/06/22 08:43	10/06/22 15:53	1
o-Terphenyl	91	70 - 130	10/06/22 08:43	10/06/22 15:53	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6400		49.5	mg/Kg			10/11/22 07:57	10

Client Sample ID: PH01 Lab Sample ID: 890-3142-3

Date Collected: 10/03/22 15:35 Date Received: 10/05/22 09:10

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		10/12/22 10:00	10/13/22 11:50	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/12/22 10:00	10/13/22 11:50	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/12/22 10:00	10/13/22 11:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/12/22 10:00	10/13/22 11:50	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/12/22 10:00	10/13/22 11:50	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/12/22 10:00	10/13/22 11:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			10/12/22 10:00	10/13/22 11:50	1
4.4.Diff	0.7		70 400			40/40/00 40:00	10/10/00 11:50	

4-Bromonuoropenzene (Surr)	110	70 - 130	10/12/22 10:00	10/13/22 11:50	1
1,4-Difluorobenzene (Surr)	97	70 - 130	10/12/22 10:00	10/13/22 11:50	1
_					

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/12/22 11:46	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			10/07/22 09:47	1

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Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3142-3

10/11/22 08:05

Lab Sample ID: 890-3142-4

Matrix: Solid

Client Sample Results

Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH01

Date Collected: 10/03/22 15:35 Date Received: 10/05/22 09:10

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 16:14	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 16:14	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 16:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			10/06/22 08:43	10/06/22 16:14	1
o-Terphenyl	104		70 - 130			10/06/22 08:43	10/06/22 16:14	1
Method: MCAWW 300.0 - Anions	Ion Chromato	aranhy - Se	oluble					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

99.8

mg/Kg

9380

Client Sample ID: PH01

Date Collected: 10/03/22 16:00

Date Received: 10/05/22 09:10

Sample Depth: 10'

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/12/22 10:00	10/13/22 12:10	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/12/22 10:00	10/13/22 12:10	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/12/22 10:00	10/13/22 12:10	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396	mg/Kg		10/12/22 10:00	10/13/22 12:10	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/12/22 10:00	10/13/22 12:10	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/12/22 10:00	10/13/22 12:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			10/12/22 10:00	10/13/22 12:10	1
1,4-Difluorobenzene (Surr)	103		70 - 130			10/12/22 10:00	10/13/22 12:10	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			10/12/22 11:46	1
Mothod: SW946 9015 NM Dioce	ol Bango Organ	ice (DBO) (SC)					
	• •	, , ,	•	Unit	n	Prenared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	• •	Qualifier	•	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 10/07/22 09:47	
Analyte Total TPH	Result <50.0	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result <50.0	Qualifier Unics (DRO) Qualifier	RL 50.0	mg/Kg		<u> </u>	10/07/22 09:47	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0 sel Range Orga Result	Qualifier Unics (DRO) Qualifier	RL	mg/Kg		Prepared	10/07/22 09:47 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL	mg/Kg		Prepared	10/07/22 09:47 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result Sel Range Orga Result <50.0 \$50.0 \$50.0	Qualifier U nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 08:43 10/06/22 08:43	10/07/22 09:47 Analyzed 10/06/22 16:34 10/06/22 16:34	Dil Fac
Analyte	Result sel Range Orga Result 	Qualifier U nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg		Prepared 10/06/22 08:43	10/07/22 09:47 Analyzed 10/06/22 16:34	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared	Analyzed 10/06/22 16:34 10/06/22 16:34 10/06/22 16:34 Analyzed	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 08:43 10/06/22 08:43 10/06/22 08:43	Analyzed 10/06/22 16:34 10/06/22 16:34	1 Dil Fac 1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH01 Lab Sample ID: 890-3142-4

Date Collected: 10/03/22 16:00 Matrix: Solid

Date Received: 10/05/22 09:10 Sample Depth: 10'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	1170		5.03	mg/Kg			10/11/22 08:12	1			

4

5

7

9

11

13

Surrogate Summary

Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-3142-1	PH01	120	96	
90-3142-2	PH01	115	99	
0-3142-3	PH01	110	97	
0-3142-3 MS	PH01	95	102	
0-3142-3 MSD	PH01	99	104	
00-3142-4	PH01	92	103	
90-3147-A-1-C MS	Matrix Spike	94	97	
0-3147-A-1-D MSD	Matrix Spike Duplicate	94	93	
S 880-36590/1-A	Lab Control Sample	89	92	
S 880-36731/1-A	Lab Control Sample	94	106	
SD 880-36590/2-A	Lab Control Sample Dup	89	92	
SD 880-36731/2-A	Lab Control Sample Dup	95	104	
3 880-36590/5-A	Method Blank	98	82	
B 880-36628/5-A	Method Blank	106	84	
B 880-36731/5-A	Method Blank	88	108	
Surrogate Legend				
BFB = 4-Bromofluorober	zene (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)	
880-19921-A-8-B MS	Matrix Spike	84	80	
880-19921-A-8-C MSD	Matrix Spike Duplicate	86	82	
890-3142-1	PH01	88	95	
890-3142-2	PH01	88	91	
890-3142-3	PH01	95	104	
890-3142-4	PH01	88	95	
LCS 880-36227/2-A	Lab Control Sample	85	90	
LCSD 880-36227/3-A	Lab Control Sample Dup	99	106	
MB 880-36227/1-A	Method Blank	105	114	
Surrogate Legend				
1CO = 1-Chlorooctane				

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3142-1 SDG: 03D2057010 Project/Site: MCA 94

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36590/5-A

Lab Sample ID: LCS 880-36590/1-A

Matrix: Solid

Analysis Batch: 36625

Matrix: Solid Analysis Batch: 36625

Client	Sample	ID:	Method	Blanl	k

Prep Type: Total/NA

Prep Batch: 36590

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 13:48	10/11/22 21:22	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepare	d Analyze	d Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	10/10/22 13	3:48 10/11/22 2	1:22 1
1,4-Difluorobenzene (Surr)	82		70 - 130	10/10/22 13	3:48 10/11/22 2	1:22 1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36590

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09596 mg/Kg 96 70 - 130 Toluene 0.100 0.09632 mg/Kg 96 70 - 130 0.100 88 Ethylbenzene 0.08819 mg/Kg 70 - 130 0.200 92 70 - 130 m-Xylene & p-Xylene 0.1845 mg/Kg 0.100 0.09352 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-36590/2-A

Analysis Batch: 36625

Prep Type: Total/NA Prep Batch: 36590

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	9	35
Toluene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
Ethylbenzene	0.100	0.09629		mg/Kg		96	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1995		mg/Kg		100	70 - 130	8	35
o-Xylene	0.100	0.09993		mg/Kg		100	70 - 130	7	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

Lab Sample ID: 890-3147-A-1-C MS

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36590

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.1006		mg/Kg		101	70 - 130	
Toluene	< 0.00200	U	0.0998	0.09590		mg/Kg		95	70 - 130	

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Prep Type: Total/NA

Prep Batch: 36590

QC Sample Results

Job ID: 890-3142-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: 890-3147-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 36625

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00200	U	0.0998	0.08125		mg/Kg		81	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1643		mg/Kg		82	70 - 130	
o-Xylene	<0.00200	U	0.0998	0.08297		mg/Kg		83	70 - 130	

MS MS

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 890-3147-A-1-D MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 36625									Prep	Batch:	36590
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0996	0.1022		mg/Kg		103	70 - 130	2	35
Toluene	<0.00200	U	0.0996	0.1003		mg/Kg		99	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.0996	0.08603		mg/Kg		86	70 - 130	6	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1774		mg/Kg		89	70 - 130	8	35
o-Xylene	<0.00200	U	0.0996	0.08805		mg/Kg		88	70 - 130	6	35
l .											

MSD MSD

MB MB

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: MB 880-36628/5-A

Matrix: Solid

Analysis Batch: 36625

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

Analyzed

10/11/22 10:38

Prep Batch: 36628

Dil Fac

Result Qualifier Unit Analyte RL Prepared Benzene <0.00200 U 0.00200 mg/Kg 10/11/22 08:09 Toluene <0.00200 U 0.00200 mg/Kg 10/11/22 08:09 Ethylbenzene <0.00200 U 0.00200 mg/Kg

10/11/22 10:38 10/11/22 08:09 10/11/22 10:38 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 10/11/22 08:09 10/11/22 10:38 <0.00200 U 0.00200 10/11/22 08:09 10/11/22 10:38 o-Xylene mg/Kg <0.00400 U 0.00400 10/11/22 08:09 10/11/22 10:38 Xylenes, Total mg/Kg MR MR

Surrogate	%Recovery Qualifi	er Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106	70 - 130	10/11/22 08:09	10/11/22 10:38	1
1,4-Difluorobenzene (Surr)	84	70 - 130	10/11/22 08:09	10/11/22 10:38	1

Lab Sample ID: MB 880-36731/5-A

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36731

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/12/22 10:00	10/13/22 11:21	1

Client: Ensolum Job ID: 890-3142-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: MB 880-36731/5-A

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36731

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg	_	10/12/22 10:00	10/13/22 11:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/12/22 10:00	10/13/22 11:21	1

мв мв

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	10/12/22 10:00	10/13/22 11:21	1
1,4-Difluorobenzene (Surr)	108		70 - 130	10/12/22 10:00	10/13/22 11:21	1

Lab Sample ID: LCS 880-36731/1-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 36813							Prep	Batch: 3	J 673 1
	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
		0.07540					70 100		

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07510		mg/Kg		75	70 - 130	
Toluene	0.100	0.08909		mg/Kg		89	70 - 130	
Ethylbenzene	0.100	0.07922		mg/Kg		79	70 - 130	
m-Xylene & p-Xylene	0.200	0.1568		mg/Kg		78	70 - 130	
o-Xylene	0.100	0.07872		mg/Kg		79	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1,4-Difluorobenzene (Surr)	106	70 - 130

Lab Sample ID: LCSD 880-36731/2-A

Matrix: Solid

Analysis Batch: 36813

Client Sample	ID: Lab	Control	Sample Dup	
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Prep Type: Total/NA Prep Batch: 36731

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09069		mg/Kg		91	70 - 130	19	35
Toluene	0.100	0.09188		mg/Kg		92	70 - 130	3	35
Ethylbenzene	0.100	0.08146		mg/Kg		81	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1640		mg/Kg		82	70 - 130	4	35
o-Xvlene	0.100	0.08158		ma/Ka		82	70 - 130	4	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	95	70 _ 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: 890-3142-3 MS

Matrix: Solid

Analysis Batch: 36813

Client Sampl	e ID: PH01
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Prep Type: Total/NA Prep Batch: 36731

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00201	U	0.0998	0.09148		mg/Kg		92	70 - 130
Toluene	<0.00201	U	0.0998	0.09208		mg/Kg		92	70 - 130
Ethylbenzene	<0.00201	U	0.0998	0.08246		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1662		mg/Kg		83	70 - 130
o-Xylene	< 0.00201	U	0.0998	0.08307		mg/Kg		83	70 - 130

Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: 890-3142-3 MS **Client Sample ID: PH01**

Matrix: Solid

Analysis Batch: 36813

Prep Type: Total/NA

Prep Batch: 36731

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 95 70 - 130 1,4-Difluorobenzene (Surr) 102 70 - 130

Lab Sample ID: 890-3142-3 MSD **Client Sample ID: PH01**

Matrix: Solid

Analysis Batch: 36813

Prep Type: Total/NA Prep Batch: 36731

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	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0990	0.08863		mg/Kg		90	70 - 130	3	35
Toluene	<0.00201	U	0.0990	0.09418		mg/Kg		95	70 - 130	2	35
Ethylbenzene	<0.00201	U	0.0990	0.08216		mg/Kg		83	70 - 130	0	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1661		mg/Kg		84	70 - 130	0	35
o-Xylene	<0.00201	U	0.0990	0.08369		mg/Kg		84	70 - 130	1	35

MSD MSD

MB MB

MS MS

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

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

Lab Sample ID: MB 880-36227/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36218

Prep Batch: 36227

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 09:43	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 09:43	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 09:43	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 10/06/22 08:43 1-Chlorooctane 105 70 - 130 10/06/22 09:43 o-Terphenyl 114 70 - 130 10/06/22 08:43 10/06/22 09:43

Lab Sample ID: LCS 880-36227/2-A

Matrix: Solid Analysis Batch: 36218

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

Prep Batch: 36227

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	1000	823.7		mg/Kg		82	70 - 130
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	835.9		mg/Kg		84	70 - 130
C10-C28)							

	LCS LCS	
Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	85	70 - 130
o-Terphenyl	90	70 - 130

Lab Sample ID: LCSD 880-36227/3-A

Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

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

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36227

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	893.3		mg/Kg		89	70 - 130	8	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	915.3		mg/Kg		92	70 - 130	9	20

C10-C28)

Matrix: Solid

Analysis Batch: 36218

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	106		70 - 130

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36227

Lab Sample ID: 880-19921-A-8-B MS **Matrix: Solid Analysis Batch: 36218**

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits

998 1025 100 70 - 130 Gasoline Range Organics <50.0 U mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 998 838.6 mg/Kg 81 70 - 130

C10-C28)

MS MS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	84	70 - 130
o-Terphenyl	80	70 - 130

Lab Sample ID: 880-19921-A-8-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 36218

Prep Type: Total/NA Prep Batch: 36227

Sample Sample Spike MSD MSD %Rec **RPD** Limit Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD <50.0 U 999 20 Gasoline Range Organics 1051 103 70 - 130 3 mg/Kg (GRO)-C6-C10 <50.0 U 999 868.5 84 70 - 130 20 Diesel Range Organics (Over mg/Kg

C10-C28)

MSD MSD Surrogate %Recovery Qualifier

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	82		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36242/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

MB MB

Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 L	U	5.00	mg/Kg			10/11/22 07:11	1

Lab Sample ID: LCS 880-36242/2-A

QC Sample Results

Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 300.0 - Anions, Ion Chromatography (Continued)

Client Sample ID: Lab Control Sample Prep Type: Soluble

Matrix: Solid

Analysis Batch: 36598

	\$	Spike	LCS	LCS				%Rec	
Analyte	A	dded	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride		250	260.6		mg/Kg		104	90 - 110	

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 880-36242/3-A **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

Spike LCSD LCSD %Rec RPD Added Result Qualifier RPD Limit Analyte Unit D %Rec Limits Chloride 250 260.8 mg/Kg 104 0

Lab Sample ID: 890-3142-1 MS **Client Sample ID: PH01 Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

•	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	5800	F1	2490	9310	F1	mg/Kg	_	141	90 - 110	

Lab Sample ID: 890-3142-1 MSD **Client Sample ID: PH01 Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	5800	F1	2490	9291	F1	mg/Kg		140	90 - 110	0	20

 Client: Ensolum
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

GC VOA

Prep Batch: 36590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-1	PH01	Total/NA	Solid	5035	
890-3142-2	PH01	Total/NA	Solid	5035	
MB 880-36590/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36590/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36590/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3147-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3147-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-1	PH01	Total/NA	Solid	8021B	36590
890-3142-2	PH01	Total/NA	Solid	8021B	36590
MB 880-36590/5-A	Method Blank	Total/NA	Solid	8021B	36590
MB 880-36628/5-A	Method Blank	Total/NA	Solid	8021B	36628
LCS 880-36590/1-A	Lab Control Sample	Total/NA	Solid	8021B	36590
LCSD 880-36590/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36590
890-3147-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	36590
890-3147-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36590

Prep Batch: 36628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36628/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 36731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-3	PH01	Total/NA	Solid	5035	 -
890-3142-4	PH01	Total/NA	Solid	5035	
MB 880-36731/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36731/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36731/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3142-3 MS	PH01	Total/NA	Solid	5035	
890-3142-3 MSD	PH01	Total/NA	Solid	5035	

Analysis Batch: 36758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-1	PH01	Total/NA	Solid	Total BTEX	
890-3142-2	PH01	Total/NA	Solid	Total BTEX	
890-3142-3	PH01	Total/NA	Solid	Total BTEX	
890-3142-4	PH01	Total/NA	Solid	Total BTEX	

Analysis Batch: 36813

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-3	PH01	Total/NA	Solid	8021B	36731
890-3142-4	PH01	Total/NA	Solid	8021B	36731
MB 880-36731/5-A	Method Blank	Total/NA	Solid	8021B	36731
LCS 880-36731/1-A	Lab Control Sample	Total/NA	Solid	8021B	36731
LCSD 880-36731/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36731
890-3142-3 MS	PH01	Total/NA	Solid	8021B	36731
890-3142-3 MSD	PH01	Total/NA	Solid	8021B	36731

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Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

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Analysis Batch: 36218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-1	PH01	Total/NA	Solid	8015B NM	36227
890-3142-2	PH01	Total/NA	Solid	8015B NM	36227
890-3142-3	PH01	Total/NA	Solid	8015B NM	36227
890-3142-4	PH01	Total/NA	Solid	8015B NM	36227
MB 880-36227/1-A	Method Blank	Total/NA	Solid	8015B NM	36227
LCS 880-36227/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36227
LCSD 880-36227/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36227
880-19921-A-8-B MS	Matrix Spike	Total/NA	Solid	8015B NM	36227
880-19921-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36227

Prep Batch: 36227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-1	PH01	Total/NA	Solid	8015NM Prep	
890-3142-2	PH01	Total/NA	Solid	8015NM Prep	
890-3142-3	PH01	Total/NA	Solid	8015NM Prep	
890-3142-4	PH01	Total/NA	Solid	8015NM Prep	
MB 880-36227/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36227/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36227/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19921-A-8-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19921-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
890-3142-1	PH01	Total/NA	Solid	8015 NM
890-3142-2	PH01	Total/NA	Solid	8015 NM
890-3142-3	PH01	Total/NA	Solid	8015 NM
890-3142-4	PH01	Total/NA	Solid	8015 NM

HPLC/IC

Leach Batch: 36242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-1	PH01	Soluble	Solid	DI Leach	
890-3142-2	PH01	Soluble	Solid	DI Leach	
890-3142-3	PH01	Soluble	Solid	DI Leach	
890-3142-4	PH01	Soluble	Solid	DI Leach	
MB 880-36242/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3142-1 MS	PH01	Soluble	Solid	DI Leach	
890-3142-1 MSD	PH01	Soluble	Solid	DI Leach	

Analysis Batch: 36598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-1	PH01	Soluble	Solid	300.0	36242
890-3142-2	PH01	Soluble	Solid	300.0	36242
890-3142-3	PH01	Soluble	Solid	300.0	36242
890-3142-4	PH01	Soluble	Solid	300.0	36242
MB 880-36242/1-A	Method Blank	Soluble	Solid	300.0	36242
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	300.0	36242

Client: Ensolum Job ID: 890-3142-1 Project/Site: MCA 94 SDG: 03D2057010

HPLC/IC (Continued)

Analysis Batch: 36598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36242
890-3142-1 MS	PH01	Soluble	Solid	300.0	36242
890-3142-1 MSD	PH01	Soluble	Solid	300.0	36242

Job ID: 890-3142-1 SDG: 03D2057010

Project/Site: MCA 94

Client Sample ID: PH01

Client: Ensolum

Lab Sample ID: 890-3142-1

Matrix: Solid

Date Collected: 10/04/22 09:00 Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/12/22 00:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36758	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36342	10/07/22 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36227	10/06/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36218	10/06/22 15:32	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36242	10/06/22 09:53	СН	EET MID
Soluble	Analysis	300.0		10			36598	10/11/22 07:34	CH	EET MID

Client Sample ID: PH01

Date Collected: 10/04/22 09:30

Lab Sample ID: 890-3142-2

Matrix: Solid

Date Collected: 10/04/22 09:30
Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/12/22 00:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36758	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36342	10/07/22 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36227	10/06/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36218	10/06/22 15:53	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	36242	10/06/22 09:53	СН	EET MID
Soluble	Analysis	300.0		10			36598	10/11/22 07:57	CH	EET MID

Client Sample ID: PH01 Lab Sample ID: 890-3142-3

Date Collected: 10/03/22 15:35
Date Received: 10/05/22 09:10
Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36731	10/12/22 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36813	10/13/22 11:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36758	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36342	10/07/22 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36227	10/06/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36218	10/06/22 16:14	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		20			36598	10/11/22 08:05	CH	EET MID

Client Sample ID: PH01 Lab Sample ID: 890-3142-4

Date Collected: 10/03/22 16:00 Matrix: Solid
Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	36731	10/12/22 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36813	10/13/22 12:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36758	10/12/22 11:46	SM	EET MID

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Lab Chronicle

 Client: Ensolum
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH01

Lab Sample ID: 890-3142-4

Matrix: Solid

Date Collected: 10/03/22 16:00 Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			36342	10/07/22 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36227	10/06/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36218	10/06/22 16:34	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	36242	10/06/22 09:53	СН	EET MID
Soluble	Analysis	300.0		1			36598	10/11/22 08:12	CH	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory: Eurofins Midland

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

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

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Method Summary

 Client: Ensolum
 Job ID: 890-3142-1

 Project/Site: MCA 94
 SDG: 03D2057010

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-3142-1 SDG: 03D2057010

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3142-1	PH01	Solid	10/04/22 09:00	10/05/22 09:10	10'
890-3142-2	PH01	Solid	10/04/22 09:30	10/05/22 09:10	12'
890-3142-3	PH01	Solid	10/03/22 15:35	10/05/22 09:10	2'
890-3142-4	PH01	Solid	10/03/22 16:00	10/05/22 09:10	10'

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Relinquished by: (Signature)

Jan Jan

10/2/22

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020.2

Received by: (Signature)

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Project Manager:

Company Name:

Chain of Custody

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

Work Order No:

	TO STATE OF THE PARTY OF THE PA	2	1			ALCIN CLOSE COLUMNICATION	- Chillippine
		,				Brogram: HST/PST PRP Brown	ofields RRC Superfund
t Suite 400	Address:	2	2 2	ariente	d St Suite 400	State of Project:	
	City, State ZIP:	3	idland	TX 79	701	Reporting: Level II Level III PST/UST TRRP	T/UST TRRP Level IV
Emai	l: kjennings@enso	lum.co) M			Deliverables: EDD ADaPT	T Other:
	n Around				ANALYSIS R	EQUEST	Preservative Codes
5 Rout		res.					None: NO DI Water: H ₂ O
							<u>u</u>
Conner Shore TAT starts t	he day received by			+			
	-	rs	4	4	-	-	H ₂ S0 ₄ : H ₂ NaOH: Na
Temp Blank: Tes No Wet Ice:	es No		.0)				H₃PO₄: HP
Thermometer ID:	8		300				NaHSO4: NABIS
Correction Factor:	رز		PA:				Na ₂ S ₂ O ₃ : NaSO ₃
N/A Temperature Reading:	8:1		S (E			ustody	Zn Acetate+NaOH: Zn
Corrected Temperature:	1.10				1		NaOH+Ascorbic Acid: SAPC
Matrix Sampled Sampled	Depth Grab/ #						Sample Comments
10.04.22 900	10' G	2	×	×			
10.04.22 930	12' G	2	×	×			
10.03.22 1535	2' G		×	×			Incident Number
10.03.22 1600	10' G	_	×	×			NAPP2212531906
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200.8 / 6020: 8RCRA 13	н		As	Ва Ве	B Cd Ca Cr Co Cu Fe F	Mg Mn MoNiK Se A	TI Sn U
rcle Method(s) and Metal(s) to be analyzed TCLP /:	SPLP 6010: 8RCF		b As	Ba E	Cd Cr Co Cu Pb Mn M	Ni Se Ag TI U	1245.1 / 7470 / 7471
ent of samples constitutes a valid	purchase order from ci	ent con				4747	
	Ensolum, LLC 601 N Marienfeld St Suite 400 Midland, TX 79701 MCA 94 O3D2057010 Temp Blank: Conner Shore Conner Shore TAT starts the lab, if re The Maritx Yes No NA Temperature Reading: Corrected Temperature Sampled 1 S 10.04.22 930 1 S 10.03.22 1535 1 0 200.8 / 6020: RECRA 13 Metal(s) to be analyzed TCLP/ Temp Blank: Tar starts the lab, if re Time Sampled Sampled TOLP/ TCLP/	400 400 400 400 And the latest ample of the latest ampled Temper of the latest ample of the latest amp	Company Name: E Company Name: G Company Name:	Company Name: 400 Company Name: Address: City, State ZIP: Email: kjennings@ensolum Turn Around Factor: That starts the day received by the lab, if received by 4:30pm the lab, if received by 4:30pm perature Reading: Trection Factor: Time Depth Comp Cont Comp Cont Cont Comp Cont Cont Cont Cont Cont Cont Cont Cont	Company Name: 400 Company Name: Address: City, State ZIP: Email: kjennings@ensolum Turn Around Factor: That starts the day received by the lab, if received by 4:30pm the lab, if received by 4:30pm perature Reading: Trection Factor: Time Depth Comp Cont Comp Cont Cont Comp Cont Cont Cont Cont Cont Cont Cont Cont	Company Name: Ensolum, LLC	

SAMPLE RECEIPT

Sampler's Name: Project Location: Project Number:

Cooler Custody Seals: Samples Received Intact:

otal Containers:

Project Name:

Phone: City, State ZIP:

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3142-1

SDG Number: 03D2057010

Login Number: 3142 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

Sample Preservation Verified.

MS/MSDs

<6mm (1/4").

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

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

N/A

True

N/A

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3142-1 SDG Number: 03D2057010

List Source: Eurofins Midland

Login Number: 3142 List Number: 2 Creator: Rodriguez, Leticia

List Creation: 10/06/22 10:20 AM

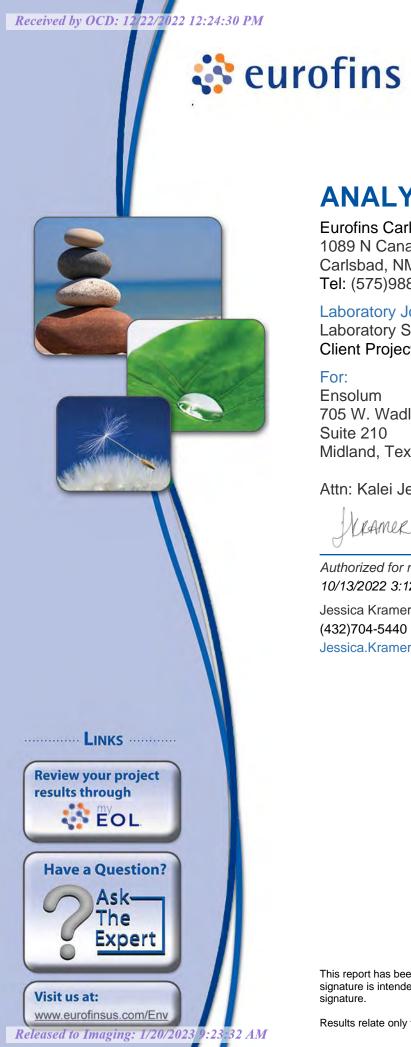
	-	
-		
Question		
aucotio		

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

Eurofins Carlsbad

Released to Imaging: 1/20/2023 9:23:32 AM

<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3143-1

Laboratory Sample Delivery Group: 03D2057010

Client Project/Site: MCA 94

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/13/2022 3:12:49 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Laboratory Job ID: 890-3143-1 Client: Ensolum SDG: 03D2057010 Project/Site: MCA 94

Tabl	le	of	Contents	
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QC Sample Results	8
QC Association Summary	12
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Definitions/Glossary

Job ID: 890-3143-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

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

Glossary

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

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Case Narrative

 Client: Ensolum
 Job ID: 890-3143-1

 Project/Site: MCA 94
 SDG: 03D2057010

Job ID: 890-3143-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3143-1

Receipt

The samples were received on 10/5/2022 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6° C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3143-1) and PH02 (890-3143-2).

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 880-36292 and analytical batch 880-36222 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 880-36241 and analytical batch 880-36597 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.

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Job ID: 890-3143-1

Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH02 Lab Sample ID: 890-3143-1

Date Collected: 10/04/22 10:05 Matrix: Solid Date Received: 10/05/22 09:10

Sample Depth: 3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 12:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 12:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 12:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/12/22 10:00	10/13/22 12:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 12:31	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/12/22 10:00	10/13/22 12:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			10/12/22 10:00	10/13/22 12:31	1
1,4-Difluorobenzene (Surr)	101		70 - 130			10/12/22 10:00	10/13/22 12:31	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	mg/Kg			10/13/22 15:19	1
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/07/22 10:14	Dil Fac
Analyte	Result <50.0	Qualifier U	50.0		<u>D</u>	Prepared		
Analyte Total TPH	Result <50.0 sel Range Orga	Qualifier U	50.0		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <50.0 sel Range Orga	Qualifier Unics (DRO) Qualifier	RL 50.0	mg/Kg			10/07/22 10:14	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0 sel Range Orga	Qualifier U nics (DRO) Qualifier U	RL 50.0 (GC)	mg/Kg		Prepared	10/07/22 10:14 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U	(GC) RL 50.0	mg/Kg Unit mg/Kg		Prepared 10/06/22 15:51	10/07/22 10:14 Analyzed 10/06/22 21:19	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 15:51 10/06/22 15:51	10/07/22 10:14 Analyzed 10/06/22 21:19 10/06/22 21:19	1 Dil Fac 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 15:51 10/06/22 15:51	10/07/22 10:14 Analyzed 10/06/22 21:19 10/06/22 21:19	1 Dil Fac 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 15:51 10/06/22 15:51 10/06/22 15:51 Prepared	10/07/22 10:14 Analyzed 10/06/22 21:19 10/06/22 21:19 10/06/22 21:19 Analyzed	1 Dil Fac 1 1 1 Dil Fac 2 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 15:51 10/06/22 15:51 10/06/22 15:51 Prepared 10/06/22 15:51	10/07/22 10:14 Analyzed 10/06/22 21:19 10/06/22 21:19 10/06/22 21:19 Analyzed 10/06/22 21:19	Dil Fac 1 1 Dil Fac Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 10/06/22 15:51 10/06/22 15:51 10/06/22 15:51 Prepared 10/06/22 15:51	10/07/22 10:14 Analyzed 10/06/22 21:19 10/06/22 21:19 10/06/22 21:19 Analyzed 10/06/22 21:19	Dil Fac 1 1 1 Dil Fac 1

Client Sample ID: PH02 Lab Sample ID: 890-3143-2

Date Collected: 10/04/22 10:30 Date Received: 10/05/22 09:10

Sample Depth: 12'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/12/22 10:00	10/13/22 12:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/12/22 10:00	10/13/22 12:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/12/22 10:00	10/13/22 12:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/12/22 10:00	10/13/22 12:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/12/22 10:00	10/13/22 12:51	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/12/22 10:00	10/13/22 12:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			10/12/22 10:00	10/13/22 12:51	

Eurofins Carlsbad

Matrix: Solid

Client Sample Results

Client: Ensolum Job ID: 890-3143-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH02 Lab Sample ID: 890-3143-2 Date Collected: 10/04/22 10:30

Matrix: Solid

Date Received: 10/05/22 09:10 Sample Depth: 12'

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102	70 - 130	10/12/22 10:00	10/13/22 12:51	1

Method: TAL SOF	Total BTEX - Total	I BTEX Calculation
motilou. IAE OOI	TOTAL DIEN TOTAL	ii bi La Guidalatidii

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/13/22 15:19	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/07/22 10:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/22 15:51	10/06/22 22:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 15:51	10/06/22 22:24	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 15:51	10/06/22 22:24	1
0	0/ 5	O!!!!				D	A I I	D# F

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	10/06/22 15:51	10/06/22 22:24	1
o-Terphenyl	78		70 - 130	10/06/22 15:51	10/06/22 22:24	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifie		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7510	50.0	mg/Kg			10/11/22 02:17	10

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3143-1

 Project/Site: MCA 94
 SDG: 03D2057010

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)	
890-3142-A-3-D MS	Matrix Spike	95	102	
890-3142-A-3-E MSD	Matrix Spike Duplicate	99	104	
890-3143-1	PH02	95	101	
890-3143-2	PH02	92	102	
LCS 880-36731/1-A	Lab Control Sample	94	106	
LCSD 880-36731/2-A	Lab Control Sample Dup	95	104	
MB 880-36731/5-A	Method Blank	88	108	

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

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

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3143-1	PH02	83	76
890-3143-1 MS	PH02	84	70
890-3143-1 MSD	PH02	87	72
890-3143-2	PH02	82	78
LCS 880-36292/2-A	Lab Control Sample	95	92
LCSD 880-36292/3-A	Lab Control Sample Dup	94	90
MB 880-36292/1-A	Method Blank	11 S1-	13 S1-

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3143-1 SDG: 03D2057010 Project/Site: MCA 94

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36731/5-A

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36731

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	_	10/12/22 10:00	10/13/22 11:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/12/22 10:00	10/13/22 11:21	1

MB MB

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88	70 - 130	10/12/22 10:00	10/13/22 11:21	1
1,4-Difluorobenzene (Surr)	108	70 - 130	10/12/22 10:00	10/13/22 11:21	1

Lab Sample ID: LCS 880-36731/1-A

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36731

	Бріке	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07510		mg/Kg		75	70 - 130	
Toluene	0.100	0.08909		mg/Kg		89	70 - 130	
Ethylbenzene	0.100	0.07922		mg/Kg		79	70 - 130	
m-Xylene & p-Xylene	0.200	0.1568		mg/Kg		78	70 - 130	
o-Xylene	0.100	0.07872		mg/Kg		79	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1,4-Difluorobenzene (Surr)	106	70 - 130

Lab Sample ID: LCSD 880-36731/2-A

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36731

	Spike	LCSD	LCSD				70KeC		KFD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09069		mg/Kg		91	70 - 130	19	35	
Toluene	0.100	0.09188		mg/Kg		92	70 - 130	3	35	
Ethylbenzene	0.100	0.08146		mg/Kg		81	70 - 130	3	35	
m-Xylene & p-Xylene	0.200	0.1640		mg/Kg		82	70 - 130	4	35	
o-Xylene	0.100	0.08158		mg/Kg		82	70 - 130	4	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1 4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-3142-A-3-D MS

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36731

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.0998	0.09148		mg/Kg		92	70 - 130	
Toluene	< 0.00201	U	0.0998	0.09208		mg/Kg		92	70 - 130	

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Page 8 of 20

Client: Ensolum Job ID: 890-3143-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: 890-3142-A-3-D MS

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Matrix Spike	
--------------------------------	--

Prep Type: Total/NA

Prep Batch: 36731

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U	0.0998	0.08246		mg/Kg		83	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1662		mg/Kg		83	70 - 130	
o-Xylene	<0.00201	U	0.0998	0.08307		mg/Kg		83	70 - 130	

MS MS

Surrogate	%Recovery Qualific	er Limits
4-Bromofluorobenzene (Surr)	95	70 - 130
1,4-Difluorobenzene (Surr)	102	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36731

Matrix: Solid

Lab Sample ID: 890-3142-A-3-E MSD

Analysis Batch: 36813

Samp	le Sample	Spike	MSD	MSD				%Rec		RPD
Analyte Res	lt Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene <0.002	1 U	0.0990	0.08863		mg/Kg		90	70 - 130	3	35
Toluene <0.002	1 U	0.0990	0.09418		mg/Kg		95	70 - 130	2	35
Ethylbenzene <0.002	1 U	0.0990	0.08216		mg/Kg		83	70 - 130	0	35
m-Xylene & p-Xylene <0.004	2 U	0.198	0.1661		mg/Kg		84	70 - 130	0	35
o-Xylene <0.002	1 U	0.0990	0.08369		mg/Kg		84	70 - 130	1	35

MSD MSD

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

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

Lab Sample ID: MB 880-36292/1-A

Matrix: Solid

Analysis Batch: 36222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36292

١		MB	MB						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/22 15:51	10/06/22 19:28	1
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 15:51	10/06/22 19:28	1
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 15:51	10/06/22 19:28	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	11	S1-	70 - 130	10/06/22 15:5	1 10/06/22 19:28	1
o-Terphenyl	13	S1-	70 - 130	10/06/22 15:5	1 10/06/22 19:28	1

Lab Sample ID: LCS 880-36292/2-A

Matrix: Solid

Analysis Batch: 36222

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

Prep Batch: 36292

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	954.5		mg/Kg		95	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	872.9		mg/Kg		87	70 - 130	
C10-C28)								

Job ID: 890-3143-1

SDG: 03D2057010

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

LCS LCS

Lab Sample ID: LCS 880-36292/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Client: Ensolum

Project/Site: MCA 94

Analysis Batch: 36222

Prep Type: Total/NA

Prep Batch: 36292

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 95 70 - 130 o-Terphenyl 92 70 - 130

Lab Sample ID: LCSD 880-36292/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 36222

Prep Type: Total/NA

Prep Batch: 36292

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 937.8 94 70 - 130 2 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 848.7 mg/Kg 85 70 - 1303 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	94	70 - 130
o-Terphenyl	90	70 - 130

Lab Sample ID: 890-3143-1 MS **Client Sample ID: PH02**

Matrix: Solid

Analysis Batch: 36222

Prep Type: Total/NA

Prep Batch: 36292

	Sample	Sample	эріке	IVIS	IVIO				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<50.0	U	998	1052		mg/Kg		103	70 - 130		-
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.0	U	998	799.9		mg/Kg		80	70 - 130		
C10 C28)											

C10-C28)

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

Lab Sample ID: 890-3143-1 MSD Client Sample ID: PH02

Matrix: Solid Prep Type: Total/NA

Analysis Batch: 36222 Prep Batch: 36292

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<50.0	U	999	1090		mg/Kg		107	70 - 130	4	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<50.0	U	999	830.8		mg/Kg		83	70 - 130	4	20	
C10 C28)												

C10-C28)

	INISD	พรบ	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
a Tarnhanul	72		70 120

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Job ID: 890-3143-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36241/1-A

Matrix: Solid

Analysis Batch: 36597

MB MB

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 10/10/22 22:26

Lab Sample ID: LCS 880-36241/2-A

Matrix: Solid

Analysis Batch: 36597

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 257.6 mg/Kg 103 90 - 110

Lab Sample ID: LCSD 880-36241/3-A

Matrix: Solid

Analysis Batch: 36597

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 256.4 mg/Kg 103 90 - 110

Lab Sample ID: 890-3141-A-11-B MS

Matrix: Solid

Analysis Batch: 36597

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier %Rec Unit Limits 1250 Chloride 3180 F1 4582 F1 112 90 - 110 mg/Kg

Lab Sample ID: 890-3141-A-11-C MSD

Released to Imaging: 1/20/2023 9:23:32 AM

Matrix: Solid

Analysis Batch: 36597

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 3180 F1 1250 4577 F1 Chloride mg/Kg 112 90 - 110 0 20

QC Association Summary

 Client: Ensolum
 Job ID: 890-3143-1

 Project/Site: MCA 94
 SDG: 03D2057010

GC VOA

Prep Batch: 36731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3143-1	PH02	Total/NA	Solid	5035	
890-3143-2	PH02	Total/NA	Solid	5035	
MB 880-36731/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36731/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36731/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3142-A-3-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3142-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3143-1	PH02	Total/NA	Solid	8021B	36731
890-3143-2	PH02	Total/NA	Solid	8021B	36731
MB 880-36731/5-A	Method Blank	Total/NA	Solid	8021B	36731
LCS 880-36731/1-A	Lab Control Sample	Total/NA	Solid	8021B	36731
LCSD 880-36731/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36731
890-3142-A-3-D MS	Matrix Spike	Total/NA	Solid	8021B	36731
890-3142-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36731

Analysis Batch: 36894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3143-1	PH02	Total/NA	Solid	Total BTEX	
890-3143-2	PH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3143-1	PH02	Total/NA	Solid	8015B NM	36292
890-3143-2	PH02	Total/NA	Solid	8015B NM	36292
MB 880-36292/1-A	Method Blank	Total/NA	Solid	8015B NM	36292
LCS 880-36292/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36292
LCSD 880-36292/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36292
890-3143-1 MS	PH02	Total/NA	Solid	8015B NM	36292
890-3143-1 MSD	PH02	Total/NA	Solid	8015B NM	36292

Prep Batch: 36292

I ah Cammia ID	Client Comple ID	Dran Time	Matrix	Mathad	Draw Batab
Lab Sample ID 890-3143-1	Client Sample ID PH02	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
				•	
890-3143-2	PH02	Total/NA	Solid	8015NM Prep	
MB 880-36292/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36292/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36292/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3143-1 MS	PH02	Total/NA	Solid	8015NM Prep	
890-3143-1 MSD	PH02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3143-1	PH02	Total/NA	Solid	8015 NM	
890-3143-2	PH02	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

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QC Association Summary

 Client: Ensolum
 Job ID: 890-3143-1

 Project/Site: MCA 94
 SDG: 03D2057010

HPLC/IC

Leach Batch: 36241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3143-1	PH02	Soluble	Solid	DI Leach	
890-3143-2	PH02	Soluble	Solid	DI Leach	
MB 880-36241/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36241/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36241/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3141-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3141-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3143-1	PH02	Soluble	Solid	300.0	36241
890-3143-2	PH02	Soluble	Solid	300.0	36241
MB 880-36241/1-A	Method Blank	Soluble	Solid	300.0	36241
LCS 880-36241/2-A	Lab Control Sample	Soluble	Solid	300.0	36241
LCSD 880-36241/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36241
890-3141-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	36241
890-3141-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36241

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Client: Ensolum Job ID: 890-3143-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH02 Lab Sample ID: 890-3143-1

Date Collected: 10/04/22 10:05 Matrix: Solid Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36731	10/12/22 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36813	10/13/22 12:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36894	10/13/22 15:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			36363	10/07/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36292	10/06/22 15:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36222	10/06/22 21:19	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	36241	10/06/22 09:50	СН	EET MID
Soluble	Analysis	300.0		10			36597	10/11/22 02:10	CH	EET MID

Client Sample ID: PH02 Lab Sample ID: 890-3143-2

Date Collected: 10/04/22 10:30 Matrix: Solid Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36731	10/12/22 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36813	10/13/22 12:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36894	10/13/22 15:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			36363	10/07/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36292	10/06/22 15:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36222	10/06/22 22:24	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36241	10/06/22 09:50	СН	EET MID
Soluble	Analysis	300.0		10			36597	10/11/22 02:17	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3143-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following englytes	and the street and the state of a contract that			
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for
,	• '	t the laboratory is not certifi Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

 Client: Ensolum
 Job ID: 890-3143-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory

EET MID

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 94

Job ID: 890-3143-1 SDG: 03D2057010

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3143-1	PH02	Solid	10/04/22 10:05	10/05/22 09:10	3'
890-3143-2	PH02	Solid	10/04/22 10:30	10/05/22 09:10	12'

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Circle Method(s) and

Relinquished by: (Signature)

Received by: (Signature)

EC1610

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020.2

eurofins

Xenco

Environment Testing

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

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

Phone:

City, State ZIP:

Midland, TX 79701

City, State ZIP:

Midland, TX 79701

601 N Marienfeld St Suite 400

601 N Marienfeld St Suite 400

Address: Company Name: Project Manager:

Kalei Jennings

Bill to: (if different)

Kalei Jennings

Company Name: Address:

Ensolum, LLC

SAMPLE RECEIP

Cooler Custody Seals: Samples Received Intac Sampler's Name:

Project Location:

Project Number:

Project Name:

Chain of Custody

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No:

www.xenco.com Page 1 of 1
9
Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level III DLevel III PST/UST TRRP Level IV
]

hone:			Email:	Email: kjennings@ensolum.com	ensolur	n.com			Dein	Deliverables: EUD L	ADa	ADar I Omer	
roject Name:	MCA 94		Turn	Turn Around					ANALYSIS REQUEST			Preserva	Preservative Codes
roject Number:	03D2057010	0	Routine	Rush	Code							None: NO	DI Water: H ₂ O
roject Location:			Due Date:								-	Cool: Cool	MeOH: Me
ampler's Name:	Conner Shore	ē	TAT starts the	TAT starts the day received by	¥						H	HCL: HC	HNO ₃ : HN
0 井			the lab, if rec	the lab, if received by 4:30pm	-						-	H ₂ S0 ₄ : H ₂	NaOH: Na
AMPLE RECEIPT	Temp Blank:	(ES) No	Wet Ice:	Yes No	nete	.0)						H₃PO₄: HP	
amples Received Intact:	(fes) No	Thermometer ID:	er ID:	00-20	ran	300						NaHSO₄: NABIS	S
ooler Custody Seals:	Yes No NIA	Correction Factor:	actor:	2.0-	Pa	PA:						Na ₂ S ₂ O ₃ : NaSO ₃	3
ample Custody Seals:	Yes No (N/A	N/A Temperature Reading:	e Reading:	8		S (E			890-3143 Chain of Custody			Zn Acetate+NaOH: Zn	OH: Zn
otal Containers:		Corrected T	Corrected Temperature:		_	IDE)15)	8021	_	-		NaOH+Ascorbic Acid: SAPC	c Acid: SAPC
Sample Identification	ition Matrix	Date Sampled	Time Sampled	Depth Grab/	b/ # of p Cont	CHLOR	TPH (80	BTEX (Sample (Sample Comments
PH02	S	10.04.22	1005	3' G	2	×	×	×					
PH02	S	10.04.22	1030	12' G	2	×	×	×					
			/									Inciden	Incident Number
		\										NAPP22	NAPP2212531906
	27												
	10.00				-						-		
1	0										\vdash		
					+	1							
12					_						-		
8					-						$\ \cdot \ $		
Total 200.7 / 6010	200.8 / 6020:	~	RCRA 13F	8RCRA 13PPM Texas 11 Al Sb As Ba Be	11 2	Sb A	Ba	Be B	B Cd Ca Cr Co Cu Fe Pb Mg I	Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Tl Sn U V Zn	SiO ₂	Na Sr TI Sn U	V Zn
ircle Method(s) and Metal(s) to be analyzed	etal(s) to be analy		TCLP / S	TCLP / SPLP 6010: 8RCRA	RCRA	Sb/	Sb As Ba Be	1.0	Cd Cr Co Cu Pb Mn Mo Ni Se	Ni Se Ag Ti U Hg	i: 1631	Hg: 1631 / 245.1 / 7470 / 7471	7471
tice: Signature of this docume	ent and relinquishment	of samples cor	stitutes a valid	purchase order fr	om cilent	compar	y to Eur	ofins Xe	otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assi	it assigns standard terms and conditions	litions		
Eurofins Xenco. A minimum o	charge of \$85.00 will be	applied to each	n project and a c	harge of \$5 for ea	ach samp	le submi	tted to E	urofins	service. Eurolins Xenco will be liable only for the cost of samples and small not assume any responsibility of any passes of expenses incurred by the client of the cost of samples and small be enforced unless previously negotiated. Eurolins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	enforced unless previously n	egotiate	d.	

10/13/2022

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3143-1 SDG Number: 03D2057010

Login Number: 3143 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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: 890-3143-1 SDG Number: 03D2057010

> **List Source: Eurofins Midland** List Creation: 10/06/22 10:20 AM

List Number: 2

Login Number: 3143

Creator: Rodriguez, Leticia

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

<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3144-1

Laboratory Sample Delivery Group: 03D2057010

Client Project/Site: MCA 94

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/13/2022 10:49:01 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: MCA 94
Laboratory Job ID: 890-3144-1
SDG: 03D2057010

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Po

Definitions/Glossary

Job ID: 890-3144-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Qualifiers

GC VOA Qualifier

F1 MS and/or MSD recovery exceeds control limits.

Qualifier Description

F2 MS/MSD RPD exceeds control limits

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

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

TNTC Too Numerous To Count

Case Narrative

 Client: Ensolum
 Job ID: 890-3144-1

 Project/Site: MCA 94
 SDG: 03D2057010

Job ID: 890-3144-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3144-1

Receipt

The samples were received on 10/5/2022 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6° C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-3144-1) and PH03 (890-3144-2).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Eurofins Carlsbad 10/13/2022

Matrix: Solid

Lab Sample ID: 890-3144-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3144-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH03

Date Collected: 10/04/22 11:00 Date Received: 10/05/22 09:10

Sample Depth: 10'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F2 F1	0.00201	mg/Kg		10/10/22 13:52	10/12/22 23:25	1
Toluene	<0.00201	U F1	0.00201	mg/Kg		10/10/22 13:52	10/12/22 23:25	1
Ethylbenzene	<0.00201	U F1	0.00201	mg/Kg		10/10/22 13:52	10/12/22 23:25	1
m-Xylene & p-Xylene	<0.00402	U F1	0.00402	mg/Kg		10/10/22 13:52	10/12/22 23:25	1
o-Xylene	<0.00201	U F1	0.00201	mg/Kg		10/10/22 13:52	10/12/22 23:25	1
Xylenes, Total	<0.00402	U F1	0.00402	mg/Kg		10/10/22 13:52	10/12/22 23:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			10/10/22 13:52	10/12/22 23:25	1
1,4-Difluorobenzene (Surr)	99		70 - 130			10/10/22 13:52	10/12/22 23:25	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/13/22 11:29	1
Mothod: SW846 8015 NM - Dioce	I Pango Organ	ice (DPO) (2C)					
Method: SW846 8015 NM - Diese Analyte	•	ics (DRO) (0 Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/07/22 09:47	Dil Fac
Analyte	Result <49.8	Qualifier U	RL 49.8		<u>D</u>	Prepared		
Analyte Total TPH	Result <49.8	Qualifier U	RL 49.8		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.8	Qualifier Unics (DRO) Qualifier	RL 49.8	mg/Kg	=		10/07/22 09:47	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.8 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC)	mg/Kg	=	Prepared	10/07/22 09:47 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result 49.8 sel Range Orga Result <49.8 49.8	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg	=	Prepared 10/06/22 08:43	10/07/22 09:47 Analyzed 10/06/22 16:55	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.8 sel Range Orga Result <49.8 <49.8	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC) RL 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/06/22 08:43 10/06/22 08:43	10/07/22 09:47 Analyzed 10/06/22 16:55 10/06/22 16:55	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.8 (GC) RL 49.8 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/06/22 08:43 10/06/22 08:43	10/07/22 09:47 Analyzed 10/06/22 16:55 10/06/22 16:55	Dil Fac 1 1 Dil Fac Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared	10/07/22 09:47 Analyzed 10/06/22 16:55 10/06/22 16:55 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared 10/06/22 08:43	10/07/22 09:47 Analyzed 10/06/22 16:55 10/06/22 16:55 Analyzed 10/06/22 16:55	Dil Fac 1 1 Dil Fac Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared 10/06/22 08:43	10/07/22 09:47 Analyzed 10/06/22 16:55 10/06/22 16:55 Analyzed 10/06/22 16:55	1 1 1 Dil Fac 1

Client Sample ID: PH03

Date Collected: 10/04/22 11:30 Date Received: 10/05/22 09:10

Sample Depth: 12'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/10/22 13:52	10/12/22 23:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:46	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/10/22 13:52	10/12/22 23:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/10/22 13:52	10/12/22 23:46	

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Lab Sample ID: 890-3144-2

2

3

4

0

8

10

12

13

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Matrix: Solid

Matrix: Solid

Client Sample Results

Client: Ensolum Job ID: 890-3144-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH03 Lab Sample ID: 890-3144-2

93

8940

Result Qualifier

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Date Collected: 10/04/22 11:30 Date Received: 10/05/22 09:10

Sample Depth: 12'

o-Terphenyl

Analyte

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	87		70 - 130			10/10/22 13:52	10/12/22 23:46	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/13/22 11:29	1
- Method: SW846 8015 NM - Diese	I Range Organi	ics (DRO) (GC)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/07/22 09:47	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/06/22 08:43	10/06/22 17:16	1
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		10/06/22 08:43	10/06/22 17:16	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/06/22 08:43	10/06/22 17:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			10/06/22 08:43	10/06/22 17:16	

70 - 130

RL

49.8

Unit

mg/Kg

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Dil Fac

10/06/22 08:43

Prepared

D

10/06/22 17:16

Analyzed

10/07/22 12:33

Surrogate Summary

Job ID: 890-3144-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3144-1	PH03	93	99	
890-3144-1 MS	PH03	117	97	
890-3144-1 MSD	PH03	85	95	
890-3144-2	PH03	119	87	
LCS 880-36591/1-A	Lab Control Sample	96	104	
LCSD 880-36591/2-A	Lab Control Sample Dup	96	100	
MB 880-36589/5-A	Method Blank	90	94	
MB 880-36591/5-A	Method Blank	88	94	

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)	
880-19921-A-8-B MS	Matrix Spike	84	80	
880-19921-A-8-C MSD	Matrix Spike Duplicate	86	82	
890-3144-1	PH03	88	95	
390-3144-2	PH03	87	93	
LCS 880-36227/2-A	Lab Control Sample	85	90	
LCSD 880-36227/3-A	Lab Control Sample Dup	99	106	
MB 880-36227/1-A	Method Blank	105	114	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3144-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36589/5-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36589

MB MB	
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An	alyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bei	nzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Tol	uene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Eth	ylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
m-X	Kylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
o-X	ylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Xyl	enes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90	70 - 130	10/10/22 13:30	10/12/22 11:31	1
1,4-Difluorobenzene (Surr)	94	70 - 130	10/10/22 13:30	10/12/22 11:31	1

Lab Sample ID: MB 880-36591/5-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36591

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 13:52	10/12/22 23:04	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepa	ared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	10/10/2	2 13:52	10/12/22 23:04	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/10/2	2 13:52	10/12/22 23:04	1

Lab Sample ID: LCS 880-36591/1-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Lab Control Sample

70 - 130

112

Prep Type: Total/NA Prep Batch: 36591

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1109 mg/Kg 111 70 - 130 Toluene 0.100 0.09785 mg/Kg 98 70 - 130 0.100 Ethylbenzene 0.09422 mg/Kg 94 70 - 130 0.200 70 - 130 m-Xylene & p-Xylene 0.1941 mg/Kg 97

0.100

Cnika

0.1122

LCCD LCCD

mg/Kg

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	96	70 - 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-36591/2-A

Matrix: Solid

o-Xylene

Analysis Batch: 36716

Client	Sample	ID:	Lab	Contr	ol	San	ıple	Dup
				D	-		-	I/NI A

Prep Type: Total/NA

Prep Batch: 36591

	Spike	LCSD LCSD				70KeC		KPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09337	mg/Kg		93	70 - 130	17	35	

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QC Sample Results

Client: Ensolum Job ID: 890-3144-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: LCSD 880-36591/2-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36591

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08557		mg/Kg		86	70 - 130	13	35
Ethylbenzene	0.100	0.08075		mg/Kg		81	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.1627		mg/Kg		81	70 - 130	18	35
o-Xylene	0.100	0.09260		mg/Kg		93	70 - 130	19	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-3144-1 MS

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: PH03 Prep Type: Total/NA

Prep Batch: 36591

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F2 F1	0.100	0.07974		mg/Kg		79	70 - 130	
Toluene	<0.00201	U F1	0.100	0.08047		mg/Kg		80	70 - 130	
Ethylbenzene	<0.00201	U F1	0.100	0.08454		mg/Kg		84	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.1817		mg/Kg		91	70 - 130	
o-Xylene	<0.00201	U F1	0.100	0.1046		mg/Kg		104	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	117	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 890-3144-1 MSD

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: PH03

Prep Type: Total/NA

Prep Batch: 36591

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F2 F1	0.0990	<0.00198	U F2 F1	mg/Kg		0.4	70 - 130	198	35
Toluene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35

MSD MSD

Surrogate	%Recovery	Quaimer	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

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

Lab Sample ID: MB 880-36227/1-A

Released to Imaging: 1/20/2023 9:23:32 AM

Matrix: Solid

Analysis Batch: 36218

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 36227

Gasoline Range Organics

мв мв

Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 10/06/22 08:43 10/06/22 09:43

(GRO)-C6-C10

Client: Ensolum Job ID: 890-3144-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: MB 880-36227/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Total/NA** Analysis Batch: 36218 Prep Batch: 36227

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 09:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 09:43	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			10/06/22 08:43	10/06/22 09:43	1
o-Terphenvl	114		70 - 130			10/06/22 08:43	10/06/22 09:43	1

Lab Sample ID: LCS 880-36	227/2-A						Client	Sample	e ID: Lab Cont	rol Sample
Matrix: Solid										e: Total/NA
Analysis Batch: 36218									Prep Ba	atch: 36227
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			1000	823.7		mg/Kg		82	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over			1000	835.9		mg/Kg		84	70 - 130	
C10-C28)										
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	85		70 - 130							
o-Terphenyl	90		70 - 130							

Matrix: Solid							Prep Type: Total/NA						
Analysis Batch: 36218								Prep	Batch:	36227			
		Spike	LCSD	LCSD				%Rec		RPD			
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit			
Gasoline Range Organics (GRO)-C6-C10		1000	893.3		mg/Kg		89	70 - 130	8	20			
Diesel Range Organics (Over		1000	915.3		mg/Kg		92	70 - 130	9	20			
C10-C28)													

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	106		70 - 130

80

Lab Sample ID: 880-19921-A Matrix: Solid	-8-B MS					Client Sample ID: Matrix Spike Prep Type: Total/NA				
Analysis Batch: 36218									Prep	Batch: 36227
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1025		mg/Kg		100	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	838.6		mg/Kg		81	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							

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70 - 130 70 - 130

1-Chlorooctane

o-Terphenyl

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 880-36227/3-A

Job ID: 890-3144-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: 880-19921-A-8-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 36218 Prep Type: Total/NA Prep Batch: 36227

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Sample Sample MSD MSD Spike Result Qualifier Analyte Added Result Qualifier %Rec Limits RPD Limit Unit Gasoline Range Organics <50.0 U 999 1051 mg/Kg 103 70 - 130 3 20 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 999 868.5 84 70 - 130 mg/Kg 4 20

C10-C28)

MSD MSD

%Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 86 o-Terphenyl 82 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36287/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36379

MB MB

Result Qualifier Unit Analyte RL Prepared Analyzed Dil Fac Chloride <5.00 5.00 mg/Kg 10/07/22 10:29

Lab Sample ID: LCS 880-36287/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36379

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	225.7		mg/Kg		90	90 - 110	

Lab Sample ID: LCSD 880-36287/3-A

Matrix: Solid

Analysis Batch: 36379

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	230.8		ma/Ka		92	90 - 110		20	

Lab Sample ID: 880-20057-A-1-F MS

Matrix: Solid

Analysis Batch: 36379

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	66.1		248	307.7		ma/Ka		97	90 - 110	

Lab Sample ID: 880-20057-A-1-G MSD

Matrix: Solid

Analysis Batch: 36379											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	66.1		248	322 7		ma/Ka		103	90 - 110	5	20

QC Association Summary

 Client: Ensolum
 Job ID: 890-3144-1

 Project/Site: MCA 94
 SDG: 03D2057010

GC VOA

Prep Batch: 36589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36589/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 36591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Total/NA	Solid	5035	
890-3144-2	PH03	Total/NA	Solid	5035	
MB 880-36591/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3144-1 MS	PH03	Total/NA	Solid	5035	
890-3144-1 MSD	PH03	Total/NA	Solid	5035	

Analysis Batch: 36716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Total/NA	Solid	8021B	36591
890-3144-2	PH03	Total/NA	Solid	8021B	36591
MB 880-36589/5-A	Method Blank	Total/NA	Solid	8021B	36589
MB 880-36591/5-A	Method Blank	Total/NA	Solid	8021B	36591
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	8021B	36591
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36591
890-3144-1 MS	PH03	Total/NA	Solid	8021B	36591
890-3144-1 MSD	PH03	Total/NA	Solid	8021B	36591

Analysis Batch: 36859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Total/NA	Solid	Total BTEX	
890-3144-2	PH03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Total/NA	Solid	8015B NM	36227
890-3144-2	PH03	Total/NA	Solid	8015B NM	36227
MB 880-36227/1-A	Method Blank	Total/NA	Solid	8015B NM	36227
LCS 880-36227/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36227
LCSD 880-36227/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36227
880-19921-A-8-B MS	Matrix Spike	Total/NA	Solid	8015B NM	36227
880-19921-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36227

Prep Batch: 36227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Total/NA	Solid	8015NM Prep	
890-3144-2	PH03	Total/NA	Solid	8015NM Prep	
MB 880-36227/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36227/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36227/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19921-A-8-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19921-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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QC Association Summary

 Client: Ensolum
 Job ID: 890-3144-1

 Project/Site: MCA 94
 SDG: 03D2057010

GC Semi VOA

Analysis Batch: 36343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Total/NA	Solid	8015 NM	
890-3144-2 	PH03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Soluble	Solid	DI Leach	_
890-3144-2	PH03	Soluble	Solid	DI Leach	
MB 880-36287/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36287/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36287/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-20057-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-20057-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3144-1	PH03	Soluble	Solid	300.0	36287
890-3144-2	PH03	Soluble	Solid	300.0	36287
MB 880-36287/1-A	Method Blank	Soluble	Solid	300.0	36287
LCS 880-36287/2-A	Lab Control Sample	Soluble	Solid	300.0	36287
LCSD 880-36287/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36287
880-20057-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	36287
880-20057-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36287

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Client: Ensolum Job ID: 890-3144-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH03 Lab Sample ID: 890-3144-1 Date Collected: 10/04/22 11:00

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 4.97 g 5 mL 36591 10/10/22 13:52 MNR **EET MID** 8021B Total/NA Analysis 1 5 mL 5 mL 36716 10/12/22 23:25 MNR **EET MID** Total/NA Analysis Total BTEX 36859 10/13/22 11:29 AJ EET MID Total/NA 8015 NM 36343 10/07/22 09:47 **EET MID** Analysis 1 SM Total/NA 8015NM Prep 36227 10/06/22 08:43 EET MID Prep 10.05 g 10 mL DM Total/NA Analysis 8015B NM 1 uL 1 uL 36218 10/06/22 16:55 SM **EET MID** Soluble DI Leach 5.03 g 50 mL 36287 10/06/22 15:32 KS Leach **EET MID** Soluble Analysis 300.0 20 36379 10/07/22 12:27 СН **EET MID**

Client Sample ID: PH03 Lab Sample ID: 890-3144-2

Date Collected: 10/04/22 11:30 **Matrix: Solid**

Date Received: 10/05/22 09:10

Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36591	10/10/22 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36716	10/12/22 23:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36859	10/13/22 11:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36343	10/07/22 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	36227	10/06/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36218	10/06/22 17:16	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36287	10/06/22 15:32	KS	EET MID
Soluble	Analysis	300.0		10			36379	10/07/22 12:33	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3144-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory: Eurofins Midland

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

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

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Method Summary

Job ID: 890-3144-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-3144-1

SDG: 03D2057010

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	De
890-3144-1	PH03	Solid	10/04/22 11:00	10/05/22 09:10	10'
890-3144-2	PH03	Solid	10/04/22 11:30	10/05/22 09:10	12'

EE/5/01

eurofins

Chain of Custody

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

251	Environment Testing	estime	Midland,	TX (432)	704-544	0, San A	ntonio.	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Work Order No:	ler No:
	>enco		EL Pas Hobbs,	o, TX (91) NM (575)	5) 585-3-	443, Lub 50, Carls	bock, T.	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	www.xenco.com	co.com Page 1 of 1
Project Manager: K	Kalei Jennings	Bii	Bill to: (if different)	₹	Kalei Jennings	ings	İ		Work (on
	Ensolum, LLC	co	Company Name:	En	Ensolum, LLC	ררכ			Program: UST/PST [] PRP[Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund [
	601 N Marienfeld St Suite 400	Ad	Address:	60	601 N Marienfeld St Suite 400	ienfeld	St Suit		State of Project:	
City, State ZIP: N	Midland, TX 79701	Cit	City, State ZIP:	<u>×</u>	Midland, TX 79701	X 7970	1		Reporting: Level II Level III	Reporting: Level II Level III PST/UST TRRP Level IVL
		Email: kje	Email: kjennings@ensolum.com	olum.co	13				Deliverables: EDD	ADaPT Other:
Project Name:	MCA 94	Turn Around	ound					ANALYSIS REQUEST	IEST	Preservative Codes
Project Number:	03D2057010	Routine	Rush	Pres.						None: NO DI Water: H ₂ O
Project Location:		Due Date:								⊻.
Sampler's Name:	Conner Shore	TAT starts the day received by	y received by							
PO#:		the lab, if received by 4:30pm	ed by 4:30pm	ers	-	1	1	-	-	H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: Res No	Wet Ice:	No.	nete						H ₃ PO ₄ : HP
Samples Received Intact:	ict: (YEs) No Thermometer ID:		DN-00							NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No WIA Correction Factor:		C.O.							Na ₂ S ₂ O ₃ : NaSO ₃
Total Containers:	100	Corrected Temperature:	=	nee.		021		890-3144 Chain of Cu	of Custody	NaOH+Ascorbic Acid: SAPC
Sample Identification	Matrix		Depth Grab/	CH 08	TPH (80	BTEX (8				Sample Comments
РН03	S 10.04.22	1100 10'	G	2	×	×				
РН03	S 10.04.22	1130 12'	G	2	×	×				
		\								Incident Number
										NAPP2212531906
	26.5			-		_				
1	0.0									
100				-	+	+				
181										
(M)				-						
Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	/ Texas 11	Al Sb	As Ba	ВеВ	\mathcal{E}	Ca Cr Co Cu Fe Pb Mg	Mn Mo Ni K Se Ag	SiO ₂ Na Sr TI Sn U V Zn
Circle Method(s) and	Circle Method(s) and Metal(s) to be analyzed	TCLP / SPL	TCLP / SPLP 6010: 8RCRA		As B	a Be	CG CI	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 do	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	nstitutes a valid purc and shall not assume	hase order from c any responsibility	lient com	pany to E	urofins X	enco, ita	s affiliates and subcontractors. It d by the client if such losses are	assigns standard terms and condi- due to circumstances beyond the c	litons control
Delinquished by:	Cionatura) Pacaiu	ad hu: (Signatur	9		to/Tim	D	D	elinguished by: /Signatur	e) Received by: (9	Signature) Date/Time
Relinquished by: (Signature)		Received by: (Signature)	e)	C	Date/Time	ā	Z	Relinquished by: (Signature)	e) Received by: (Signature)	

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3144-1

 SDG Number: 03D2057010

Login Number: 3144 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3144-1 SDG Number: 03D2057010

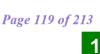
List Source: Eurofins Midland

Login Number: 3144 List Number: 2 List Creation: 10/06/22 10:20 AM

Creator: Rodriguez, Leticia

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

<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3145-1

Laboratory Sample Delivery Group: 03D2057010

Client Project/Site: MCA 94

For:

eurofins 🔆

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/13/2022 10:49:02 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Review your project results through EOL

.....LINKS

Received by OCD: 12/22/2022 12:24:30 PM

Have a Question?



Visit us at:

www.eurofinsus.com/Env Released to Imaging: 1/20/2023 9:23:32 AM

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

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

Client: Ensolum
Project/Site: MCA 94
Laboratory Job ID: 890-3145-1
SDG: 03D2057010

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Definitions/Glossary

Job ID: 890-3145-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Qualifiers

GC VOA

Qualifier **Qualifier Description** F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

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

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

RPD

TEQ

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points Toxicity Equivalent Factor (Dioxin) TEF

TNTC Too Numerous To Count

Case Narrative

 Client: Ensolum
 Job ID: 890-3145-1

 Project/Site: MCA 94
 SDG: 03D2057010

Job ID: 890-3145-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3145-1

Receipt

The samples were received on 10/5/2022 9:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6° C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH04 (890-3145-1) and PH04 (890-3145-2).

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36242 and 880-36242 and analytical batch 880-36598 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.

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Matrix: Solid

Lab Sample ID: 890-3145-1

Client Sample Results

Client: Ensolum Job ID: 890-3145-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH04

Date Collected: 10/04/22 13:00 Date Received: 10/05/22 09:10

Sample Depth: 8'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 00:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 00:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 00:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/10/22 13:52	10/13/22 00:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 00:06	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/10/22 13:52	10/13/22 00:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			10/10/22 13:52	10/13/22 00:06	1
1,4-Difluorobenzene (Surr)	86		70 - 130			10/10/22 13:52	10/13/22 00:06	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/07/22 09:47	
=							10/07/22 09:47	1
Method: SW846 8015B NM - Die	sel Range Orga	nics (DRO)	(GC)				10/07/22 09.47	1
Method: SW846 8015B NM - Die Analyte		nics (DRO) Qualifier	(GC)	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
		Qualifier		Unit mg/Kg	<u>D</u>	Prepared 10/06/22 08:43		
Analyte Gasoline Range Organics	Result	Qualifier U	RL		<u>D</u>		Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.8	Qualifier U	49.8	mg/Kg	<u> </u>	10/06/22 08:43	Analyzed 10/06/22 17:36	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.8 <49.8	Qualifier U U U	49.8 49.8	mg/Kg	<u> </u>	10/06/22 08:43	Analyzed 10/06/22 17:36	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.8 <49.8 <49.8	Qualifier U U U	RL 49.8 49.8 49.8	mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43	Analyzed 10/06/22 17:36 10/06/22 17:36 10/06/22 17:36	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <49.8 <49.8 <49.8 <49.8 <49.8	Qualifier U U U	### RL 49.8 49.8 49.8 **Limits	mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared	Analyzed 10/06/22 17:36 10/06/22 17:36 10/06/22 17:36 Analyzed	Dil Fac 1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.8 <49.8 <49.8 <49.8 <80.0 <49.8 <80.0 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8	Qualifier U U Qualifier	RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared 10/06/22 08:43	Analyzed 10/06/22 17:36 10/06/22 17:36 10/06/22 17:36 Analyzed 10/06/22 17:36	Dil Face 1 1 1 Dil Face
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U U Qualifier	RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	10/06/22 08:43 10/06/22 08:43 10/06/22 08:43 Prepared 10/06/22 08:43	Analyzed 10/06/22 17:36 10/06/22 17:36 10/06/22 17:36 Analyzed 10/06/22 17:36	Dil Face 1 1 1 Dil Face

Client Sample ID: PH04

Date Collected: 10/04/22 13:30 Date Received: 10/05/22 09:10

Sample Depth: 12'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 00:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 00:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 00:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 00:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 00:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 00:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			10/10/22 13:52	10/13/22 00:26	

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Lab Sample ID: 890-3145-2

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3145-2

Client Sample Results

 Client: Ensolum
 Job ID: 890-3145-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH04

Date Collected: 10/04/22 13:30 Date Received: 10/05/22 09:10

Sample Depth: 12'

Method: SW846 8021B - Volat	tile Organic Comp	ounds (GC)	(Continued)					
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130			10/10/22 13:52	10/13/22 00:26	1
Method: TAL SOP Total BTEX	(- Total BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/13/22 11:29	1
_ Method: SW846 8015 NM - Did	esel Range Organi	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/07/22 09:47	1
– Method: SW846 8015B NM - D	Diesel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		10/06/22 08:43	10/06/22 17:57	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		10/06/22 08:43	10/06/22 17:57	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		10/06/22 08:43	10/06/22 17:57	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/06/22 08:43	10/06/22 17:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			10/06/22 08:43	10/06/22 17:57	1
o-Terphenyl	94		70 - 130			10/06/22 08:43	10/06/22 17:57	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Chloride	7190	49.8	mg/Kg			10/12/22 12:09	10	

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Released to Imaging: 1/20/2023 9:23:32 AM

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Surrogate Summary

Client: Ensolum Job ID: 890-3145-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
₋ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3144-A-1-D MS	Matrix Spike	117	97	
90-3144-A-1-E MSD	Matrix Spike Duplicate	85	95	
90-3145-1	PH04	106	86	
90-3145-2	PH04	94	93	
CS 880-36591/1-A	Lab Control Sample	96	104	
CSD 880-36591/2-A	Lab Control Sample Dup	96	100	
B 880-36589/5-A	Method Blank	90	94	
MB 880-36591/5-A	Method Blank	88	94	

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)	
880-19921-A-8-B MS	Matrix Spike	84	80	
880-19921-A-8-C MSD	Matrix Spike Duplicate	86	82	
890-3145-1	PH04	86	92	
890-3145-2	PH04	88	94	
890-3145-2 MS	PH04	77	73	
890-3145-2 MSD	PH04	89	74	
LCS 880-36227/2-A	Lab Control Sample	85	90	
LCS 880-36321/2-A	Lab Control Sample	102	93	
LCSD 880-36227/3-A	Lab Control Sample Dup	99	106	
LCSD 880-36321/3-A	Lab Control Sample Dup	102	87	
MB 880-36227/1-A	Method Blank	105	114	
MB 880-36321/1-A	Method Blank	90	89	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-3145-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36589/5-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36589

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1

MB MB

MR MR

<0.00200 U

<0.00200 U

<0.00200 U

<0.00400 U

<0.00200 U

<0.00400 U

Result Qualifier

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90	70 - 130	10/10/22 13:30	10/12/22 11:31	1
1,4-Difluorobenzene (Surr)	94	70 - 130	10/10/22 13:30	10/12/22 11:31	1

RL

0.00200

0.00200

0.00200

0.00400

0.00200

0.00400

Unit

mg/Kg

mg/Kg

Lab Sample ID: MB 880-36591/5-A

Matrix: Solid

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Analysis Batch: 36716

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

Analyzed

10/12/22 23:04

10/12/22 23:04

Prep Batch: 36591

Dil Fac

mg/Kg 10/10/22 13:52 10/12/22 23:04 mg/Kg 10/10/22 13:52 10/12/22 23:04 10/10/22 13:52 10/12/22 23:04 mg/Kg 10/10/22 13:52 10/12/22 23:04 mg/Kg

Prepared

10/10/22 13:52

10/10/22 13:52

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prej	pared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	10/10/2	22 13:52	10/12/22 23:04	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/10/2	22 13:52	10/12/22 23:04	1

Lab Sample ID: LCS 880-36591/1-A

Matrix: Solid

Analysis Batch: 36716

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

Prep Batch: 36591

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1109		mg/Kg		111	70 - 130	
Toluene	0.100	0.09785		mg/Kg		98	70 - 130	
Ethylbenzene	0.100	0.09422		mg/Kg		94	70 - 130	
m-Xylene & p-Xylene	0.200	0.1941		mg/Kg		97	70 - 130	
o-Xylene	0.100	0.1122		mg/Kg		112	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	96	70 - 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-36591/2-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36591

	Spike	LCSD LCSD				70 Rec		KPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09337	mg/Kg		93	70 - 130	17	35

LCCD LCCD

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QC Sample Results

Client: Ensolum Job ID: 890-3145-1 Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: LCSD 880-36591/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36716 Prep Batch: 36591

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08557		mg/Kg		86	70 - 130	13	35
Ethylbenzene	0.100	0.08075		mg/Kg		81	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.1627		mg/Kg		81	70 - 130	18	35
o-Xylene	0.100	0.09260		mg/Kg		93	70 - 130	19	35

LCSD LCSD %Recovery Qualifier Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 96 1,4-Difluorobenzene (Surr) 100 70 - 130

Lab Sample ID: 890-3144-A-1-D MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36716 Prep Batch: 36591

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F2 F1	0.100	0.07974		mg/Kg		79	70 - 130	
Toluene	<0.00201	U F1	0.100	0.08047		mg/Kg		80	70 - 130	
Ethylbenzene	<0.00201	U F1	0.100	0.08454		mg/Kg		84	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.1817		mg/Kg		91	70 - 130	
o-Xylene	<0.00201	U F1	0.100	0.1046		mg/Kg		104	70 - 130	

MS MS Qualifier Surrogate %Recovery Limits 70 - 130 4-Bromofluorobenzene (Surr) 117 97 70 - 130 1,4-Difluorobenzene (Surr)

Lab Sample ID: 890-3144-A-1-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36716 Prep Batch: 36591

Tananyone Battern Co. 10											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F2 F1	0.0990	<0.00198	U F2 F1	mg/Kg		0.4	70 - 130	198	35
Toluene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35

MSD MSD %Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 85 70 - 130 95 1,4-Difluorobenzene (Surr)

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

Lab Sample ID: MB 880-36227/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 36218 Prep Batch: 36227 мв мв

Result Qualifier RL Unit Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/06/22 08:43 10/06/22 09:43 (GRO)-C6-C10

1-Chlorooctane

o-Terphenyl

 Client: Ensolum
 Job ID: 890-3145-1

 Project/Site: MCA 94
 SDG: 03D2057010

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

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Lab Sample ID: MB 880-36227/1-A

Matrix: Solid

Analysis Batch: 36218

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36227

1		IVID	IVID						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 09:43	1
	OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:43	10/06/22 09:43	1
		МВ	MB						
	Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
	1-Chlorooctane	105		70 - 130			10/06/22 08:43	10/06/22 09:43	1
l	o-Terphenyl	114		70 - 130			10/06/22 08:43	10/06/22 09:43	1

Lab Sample ID: LCS 880-36227/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36218 Prep Batch: 36227 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 823.7 82 70 - 130 mg/Kg (GRO)-C6-C10 1000 835.9 Diesel Range Organics (Over mg/Kg 84 70 - 130 C10-C28) LCS LCS Qualifier Limits Surrogate %Recovery

Lab Sample ID: LCSD 880-36227/3-A

Matrix: Solid

Analysis Batch: 36218

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36227

70 - 130

70 - 130

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	893.3		mg/Kg		89	70 - 130	8	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	915.3		mg/Kg		92	70 - 130	9	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: 880-19921-A-8-B MS

Matrix: Solid

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

Analysis Batch: 36218

Prep Batch: 36227

Sample Sa

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1025		mg/Kg		100	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	838.6		mg/Kg		81	70 - 130	
	MS	MS								

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	80		70 - 130

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Client: Ensolum Job ID: 890-3145-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: 880-19921-A-8-C MSD

Matrix: Solid

Analysis Batch: 36218

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 36227

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits Gasoline Range Organics <50.0 U 999 1051 mg/Kg 103 70 - 130 3 20 (GRO)-C6-C10 999 Diesel Range Organics (Over <50.0 U 868.5 mg/Kg 84 70 - 130 4

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: MB 880-36321/1-A

Analysis Batch: 36313

Client Sample ID: Method Blank

Prep Batch: 36321

Matrix: Solid Prep Type: Total/NA

мв мв

Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0 l	J	50.0	mg/Kg		10/07/22 07:40	10/07/22 09:54	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0 l	IJ	50.0	mg/Kg		10/07/22 07:40	10/07/22 09:54	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0 l	IJ	50.0	mg/Kg		10/07/22 07:40	10/07/22 09:54	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90	70 - 130	10/07/22 07:40	10/07/22 09:54	1
o-Terphenyl	89	70 - 130	10/07/22 07:40	10/07/22 09:54	1

Lab Sample ID: LCS 880-36321/2-A

Matrix: Solid

Analysis Batch: 36313

Client 9	amnla	ID: I ah	Control	Sample

Prep Type: Total/NA

Prep Batch: 36321

	Spike	LCS LCS				%Rec	
Analyte	Added	Result Qualific	er Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	859.3	mg/Kg		86	70 - 130	
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	1064	mg/Kg		106	70 - 130	
C10 C28)							

C10-C28)

LCS LCS

Surrogate	%Recovery Quali	fier Limits
1-Chlorooctane	102	70 - 130
o-Terphenyl	93	70 - 130

Lab Sample ID: LCSD 880-36321/3-A

Matrix: Solid

Analysis Batch: 36313

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

Prep Batch: 36321

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	825.5		mg/Kg		83	70 - 130	4	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	989.6		mg/Kg		99	70 - 130	7	20
C10-C28)									

Job ID: 890-3145-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: LCSD 880-36321/3-A

Matrix: Solid Analysis Batch: 36313 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36321

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 102 70 - 130 o-Terphenyl 87 70 - 130

Lab Sample ID: 890-3145-2 MS Client Sample ID: PH04

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36313 Prep Batch: 36321 MS MS %Rec

Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits <50.0 U 998 816.5 82 70 - 130Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 998 810.5 mg/Kg 81 70 - 130C10-C28)

MS MS %Recovery Surrogate Qualifier Limits 70 - 130 1-Chlorooctane 77 73 70 - 130 o-Terphenyl

Lab Sample ID: 890-3145-2 MSD **Client Sample ID: PH04** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 36313

Prep Batch: 36321 Sample Sample MSD MSD Spike Added Result Qualifier Result Qualifier Unit %Rec Limits RPD Limit D

Gasoline Range Organics <50.0 U 999 847.6 mg/Kg 85 70 - 130 4 20 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 999 830.8 mg/Kg 83 70 - 130 2 20

C10-C28)

Analyte

MSD MSD %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 89 70 - 130 o-Terphenyl 74

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36242/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

MB MB

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 10/11/22 07:11

Lab Sample ID: LCS 880-36242/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

Spike LCS LCS %Rec Analyte Added Result Qualifier Limits Unit Chloride 250 260.6 mg/Kg 104 90 - 110

QC Sample Results

Client: Ensolum Job ID: 890-3145-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-36242/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 260.8 mg/Kg 104 90 - 110 20

Lab Sample ID: 890-3142-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Chloride 5800 F1 2490 9310 F1 mg/Kg 141 90 - 110

Lab Sample ID: 890-3142-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36598

MSD MSD %Rec RPD Spike Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 5800 F1 2490 9291 F1 mg/Kg 140 90 - 110

Lab Sample ID: 890-3147-A-4-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36598

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier %Rec Unit Limits Chloride 8500 F1 5000 18090 F1 192 90 - 110 mg/Kg

Lab Sample ID: 890-3147-A-4-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36598

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 8500 F1 5000 17000 F1 Chloride mg/Kg 170 90 - 110 6 20

QC Association Summary

Client: Ensolum Job ID: 890-3145-1 Project/Site: MCA 94 SDG: 03D2057010

GC VOA

Prep Batch: 36589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36589/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 36591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Total/NA	Solid	5035	
890-3145-2	PH04	Total/NA	Solid	5035	
MB 880-36591/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3144-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3144-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Total/NA	Solid	8021B	36591
890-3145-2	PH04	Total/NA	Solid	8021B	36591
MB 880-36589/5-A	Method Blank	Total/NA	Solid	8021B	36589
MB 880-36591/5-A	Method Blank	Total/NA	Solid	8021B	36591
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	8021B	36591
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36591
890-3144-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	36591
890-3144-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36591

Analysis Batch: 36860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Total/NA	Solid	Total BTEX	
890-3145-2	PH04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Total/NA	Solid	8015B NM	36227
890-3145-2	PH04	Total/NA	Solid	8015B NM	36227
MB 880-36227/1-A	Method Blank	Total/NA	Solid	8015B NM	36227
LCS 880-36227/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36227
LCSD 880-36227/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36227
880-19921-A-8-B MS	Matrix Spike	Total/NA	Solid	8015B NM	36227
880-19921-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36227

Prep Batch: 36227

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Total/NA	Solid	8015NM Prep	
890-3145-2	PH04	Total/NA	Solid	8015NM Prep	
MB 880-36227/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36227/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36227/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19921-A-8-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19921-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum Job ID: 890-3145-1 Project/Site: MCA 94 SDG: 03D2057010

GC Semi VOA

Analysis Batch: 36313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36321/1-A	Method Blank	Total/NA	Solid	8015B NM	36321
LCS 880-36321/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36321
LCSD 880-36321/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36321
890-3145-2 MS	PH04	Total/NA	Solid	8015B NM	36321
890-3145-2 MSD	PH04	Total/NA	Solid	8015B NM	36321

Prep Batch: 36321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36321/1-A	Method Blank	Total/NA	Solid	8015NM Prep	-
LCS 880-36321/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36321/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3145-2 MS	PH04	Total/NA	Solid	8015NM Prep	
890-3145-2 MSD	PH04	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Total/NA	Solid	8015 NM	
890-3145-2	PH04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Soluble	Solid	DI Leach	
890-3145-2	PH04	Soluble	Solid	DI Leach	
MB 880-36242/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3142-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3142-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-3147-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3147-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3145-1	PH04	Soluble	Solid	300.0	36242
890-3145-2	PH04	Soluble	Solid	300.0	36242
MB 880-36242/1-A	Method Blank	Soluble	Solid	300.0	36242
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	300.0	36242
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36242
890-3142-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	36242
890-3142-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36242
890-3147-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	36242
890-3147-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36242

Client: Ensolum Job ID: 890-3145-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH04

Date Collected: 10/04/22 13:00 Date Received: 10/05/22 09:10

Lab Sample ID: 890-3145-1 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36591	10/10/22 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36716	10/13/22 00:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36860	10/13/22 11:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36344	10/07/22 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	36227	10/06/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36218	10/06/22 17:36	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		20			36598	10/11/22 08:20	CH	EET MID

Client Sample ID: PH04 Lab Sample ID: 890-3145-2

Date Collected: 10/04/22 13:30 Matrix: Solid

Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36591	10/10/22 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36716	10/13/22 00:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36860	10/13/22 11:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36344	10/07/22 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36227	10/06/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36218	10/06/22 17:57	SM	EET MIC
Soluble	Leach	DI Leach			5.02 g	50 mL	36242	10/06/22 09:53	CH	EET MIC
Soluble	Analysis	300.0		10			36598	10/12/22 12:09	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3145-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following englytes	and the street and the state of a contract that			
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for
,	• '	t the laboratory is not certifi Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

 Client: Ensolum
 Job ID: 890-3145-1

 Project/Site: MCA 94
 SDG: 03D2057010

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-3145-1

SDG: 03D2057010

002037010	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3145-1	PH04	Solid	10/04/22 13:00	10/05/22 09:10	8'
890-3145-2	PH04	Solid	10/04/22 13:30	10/05/22 09:10	12'

Address:

City, State ZIP:

Midland, TX 79701

City, State ZIP:

Midland, TX 79701

601 N Marienfeld St Suite 400

Address: Company Name: Bill to: (if different)

Ensolum, LLC Kalei Jennings

601 N Marienfeld St Suite 400

Project Manager:

Company Name:

Ensolum, LLC Kalei Jennings

Chain of Custody

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

Work Order No:

Xenco

Environment Testing

www.xenco.com Page 1 of 1
Work Order Comments
orogram: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Number: MCA_94										
Preservative None: NO Cool: Cool H ₂ S0 ₄ : H ₂ H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOh NaOH+Ascoribic A Sample Co Signature) Preservative None: NO Cool: Cool H ₂ S0 ₄ : H ₂ H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOh NaOH+Ascoribic A Sample Co Signature Preservative NahSO ₄ : H ₂ H ₃ PO ₄ : HP NaOH+Ascoribic A Sample Co Signature Preservative Nappo ₄ : H ₂ H ₃ PO ₄ : HP NaOH+Ascoribic A Sample Co NaOH+Ascoribic A Sample Co NaPP221:										
Custody Incident I NAPP221: NAPP221			4			0			2	
Preservative None: NO Cool: Cool Cool: Cool HcL: Hc H ₂ S0 ₄ : H ₂ H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOh NaOH+Ascoribic A Sample Co Sample Co Incident I NAPP221: NAPP221: No Ni Se Ag Ti U Hg: 1631/245.1/7470/7 Incident I NAPP221: Received by: (Signature) D. Received by: (Signature) D.			0	190 ce/3	10/	The state of	as as	non	7	X
Custody NaHSO4: NABIS NaPO4: HP NaOH+Ascorbic A Sample Cc	Date/Time	Received by: (Signature)	- 1	Date/Time		e) .	by: (Signature	Received	ature)	Relinquished by: (Sign:
ANALYSIS REQUEST		standard terms and conditions ircumstances beyond the control forced unless previously negotiated.	enco, its affiliates and subcontractors. It assigns incurred by the cilent if such losses are due to c Xenco, but not analyzed. These terms will be entired.	ompany to Eurofins X ly losses or expenses submitted to Eurofins	n client co lity for an n sample	hase order from	stitutes a valid purc d shali not assume project and a charg	of samples cons it of samples an applied to each	and relinquishment liable only for the cou rige of \$85.00 will be	odice: Signature of this document service. Eurofins Xenco will be Eurofins Xenco. A minimum chi
All Number: MCA 94 Turn Around Turn	/ /4/0 / /4/1		Cd Cr Co Cu Pb Mn Mo Ni Se A	Sb As Ba Be	CRA	P 6010: 8F	TCLP / SPL	zed	il(s) to be analy	ircle Method(s) and Meta
ANALYSIS REQUEST Anne Analysis Analys	I Sn U V Zn	Mo Ni K Se Ag SiO ₂ Na Sr I	Cd Ca Cr Co Cu	As Ba Be E	≥			<u>e</u>	200.8 / 6020:	
Turn Around Turn Around Preservatity Preser										
Annumber: MCA 94										1
ANALYSIS REQUEST Tamp Blank: Conner Shore TAT sairs the day received by Incustory Seals: Ves No Ves I Corrected Temperature Reading: Location Locatio										
ANALYSIS REQUEST									/	
ANALYSIS REQUEST AND Preservation									∏, 0	
Tum Around Tum								1		
## ANALYSIS REQUEST Confer Shore Conner Shore Conner Shore Conner Shore TAT starts the day received by 4:30pm Fresh Fre	NAPP2212531906						1			
## ANALYSIS REQUEST ### ANALYSIS REQUEST ### ANALYSIS REQUEST #### ANALYSIS REQUEST #### ANALYSIS REQUEST ####################################	Incident Number									
# Name: MCA 94				×	2			10.04.22	S	PH04
ANALYSIS REQUEST Preservative				×	2	G		10.04.22	S	PH04
Tumber: O3D2057010 Preservative thumber: O3D2057010 Due Date: TAT starts the day received by 4:30pm the lab, if receive	ample Comments	S		TPH (8	cont			Date Sampled		Sample Identification
t Number: MCA 94 Turn Around Pres. O3D2057010 \$\frac{\tensived}{\tensived}\tensived} \tensived \ten	+Ascorbic Acid: SAPC	NaOH		015)		-	mperature:	Corrected Te	(otal Containers:
Tummber: MCA 94 Turn Around Preservative It Number: O3D2057010 Due Date: Int starts the day received by the lab, if received by 4:30pm PLE RECEIPT Temp Blank: Resived Intact: Fes No NA Correction Factor: Preservative ANALYSIS REQUEST None: No Cool: Cool HCL: HC H ₂ SO ₄ : H ₂ H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Na ₂ S ₂ O ₃ : NaSO ₃	ntate+NaOH: Zn	Zn Ace				OX.	Reading:	Temperature	8	
Turn Around ANALYSIS REQUEST Preservative to Number: O3D2057010 Due Date: Location: Conner Shore TAT starts the day received by 4:30pm PLE RECEIPT Temp Blank: (Yes) No Thermometer ID: Town - DO' ara ANALYSIS REQUEST Code Cool: Cool HCL: HC H2SO4: H2 H3PO4: HP NaHSO4: NABIS	J ₃ : NaSO ₃	Na ₂ S ₂ C		PA:	P	6.01	actor:	Correction Fa	No.	
# Name: MCA 94 Turn Around ANALYSIS REQUEST Preservative # Number: 03D2057010 \$\frac{1}{2}\$ Routine □ Rush \$\frac{1}{2}\$ Red None: NO # Location: □ Location	O4: NABIS	NaHSC		300	arar	-00-	<u> </u>	Thermomete	_	amples Received Intact:
t Name: MCA 94 Turn Around Pres. ANALYSIS REQUEST Preservatii Analysis Request None: No Code Cool: Cool tLocation: Conner Shore TAT starts the day received by 4:30pm the lab. if received by 4:30pm TAT starts the day received by 4:30pm TAT starts the day received by 4:30pm	HP	H ₃ PO ₄ :).0)	nete		1	(Pes) No	Temp Blank:	SAMPLE RECEIPT
MCA 94 Turn Around ANALYSIS REQUEST Preservative 03D2057010 ★ Routine □ Rush □ Rush □ Rush □ Code Pres. □ Rush □ Rush □ Rush □ Rush □ Code None: NO Conner Shore TAT starts the day received by		H ₂ S04:			ers	d by 4:30pm	the lab, if receive			O #:
MCA 94 Turn Around ANALYSIS REQUEST Preservative 03D2057010 ★ Routine Rush Pres. Code None: NO Due Date: Cool: Cool Cool: Cool		HCL: H				y received by	TAT starts the da	Ф	Conner Shor	ampler's Name:
MCA 94 Turn Around Preservativ O3D2057010 \$\frac{1}{2}\text{Routine} \qquad	<u>u</u>	Cool: C					Due Date:			roject Location:
MCA 94 Turn Around ANALYSIS REQUEST Preservativ		None:			Code	Rush	_		03D205701	roject Number:
	reservative Codes	פּ				ound	Turn Ar		MCA 94	roject Name:

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3145-1

 SDG Number: 03D2057010

Login Number: 3145 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

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

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<6mm (1/4").

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3145-1

 SDG Number: 03D2057010

List Source: Eurofins Midland List Creation: 10/06/22 10:20 AM

List Number: 2

Login Number: 3145

Creator: Rodriguez, Leticia

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

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Received by OCD: 12/22/2022 12:24:30 PM

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3146-1

Laboratory Sample Delivery Group: 03D2057010

Client Project/Site: MCA 94

Revision: 1

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

MAMER

Authorized for release by: 10/17/2022 1:05:37 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

The Expert

.....LINKS

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EOL

Have a Question?

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Released to Imaging: 1/20/2023 9:23:32 AM

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

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

Client: Ensolum
Project/Site: MCA 94
Laboratory Job ID: 890-3146-1
SDG: 03D2057010

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Definitions/Glossary

Client: Ensolum Job ID: 890-3146-1 Project/Site: MCA 94 SDG: 03D2057010

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** S1-Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

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

Practical Quantitation Limit PQL

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
 Job ID: 890-3146-1

 Project/Site: MCA 94
 SDG: 03D2057010

Job ID: 890-3146-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3146-1

REVISION

The report being provided is a revision of the original report sent on 10/12/2022. The report (revision 1) is being revised due to Per client email, requesting TPH re run.

Report revision history

Receipt

The sample was received on 10/5/2022 9:10 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: PH05 (890-3146-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-36849/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-20328-A-1-B MS) and (880-20328-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: PH05 (890-3146-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36242 and analytical batch 880-36598 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.

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A

Lab Sample ID: 890-3146-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3146-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH05

Date Collected: 10/04/22 14:00 Date Received: 10/05/22 09:10

Sample Depth: 3'

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/11/22 14:31	10/12/22 15:52	1
Toluene	< 0.00201	U	0.00201	mg/Kg		10/11/22 14:31	10/12/22 15:52	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/11/22 14:31	10/12/22 15:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/11/22 14:31	10/12/22 15:52	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/11/22 14:31	10/12/22 15:52	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/11/22 14:31	10/12/22 15:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			10/11/22 14:31	10/12/22 15:52	1
1,4-Difluorobenzene (Surr)	87		70 - 130			10/11/22 14:31	10/12/22 15:52	1
Method: TAL SOP Total BTEX	(- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/12/22 16:23	1
10.00.01.07								
	esel Range (Organics (DRO) (GC)					
Method: SW846 8015 NM - Di	_	Organics (Qualifier	DRO) (GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Di Analyte	_	Qualifier	, , ,	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/07/22 09:09	Dil Fac
Method: SW846 8015 NM - Dic Analyte Total TPH Method: SW846 8015B NM - D	Result < 50.0	Qualifier U	RL 50.0		<u>D</u>	Prepared		Dil Fac
Method: SW846 8015 NM - Di Analyte Total TPH	Result <50.0	Qualifier U	RL 50.0		<u>D</u>	Prepared Prepared		Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result <50.0	Qualifier U Organics Qualifier	RL 50.0 (DRO) (GC)	mg/Kg	_ =	<u> </u>	10/07/22 09:09	1 Dil Fac
Method: SW846 8015 NM - Did Analyte Total TPH Method: SW846 8015B NM - Did Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 Ciesel Range Result	Qualifier U Organics Qualifier U	70.0 (DRO) (GC) RL	mg/Kg Unit	_ =	Prepared 10/13/22 10:24	10/07/22 09:09 Analyzed	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 Ciesel Range Result <50.0	Qualifier U Organics Qualifier U	RL	mg/Kg Unit mg/Kg	_ =	Prepared 10/13/22 10:24 10/13/22 10:24	10/07/22 09:09 Analyzed 10/15/22 02:26	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0 Ciesel Range Result <50.0 <50.0	Qualifier U Organics Qualifier U U	RL 50.0 (DRO) (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/13/22 10:24 10/13/22 10:24	10/07/22 09:09 Analyzed 10/15/22 02:26 10/15/22 02:26	1 Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U Organics Qualifier U U Qualifier	RL 50.0 (DRO) (GC) RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/13/22 10:24 10/13/22 10:24 10/13/22 10:24	Analyzed 10/15/22 02:26 10/15/22 02:26 10/15/22 02:26	Dil Face 1 1 1 Dil Face
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U Organics Qualifier U U Qualifier	RL 50.0 (DRO) (GC) RL 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/13/22 10:24 10/13/22 10:24 10/13/22 10:24 Prepared 10/13/22 10:24	Analyzed 10/15/22 02:26 10/15/22 02:26 10/15/22 02:26 Analyzed	1
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - E	Result <50.0	Qualifier U Organics Qualifier U U U Qualifier S1+ S1+	RL 50.0 (DRO) (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 10/13/22 10:24 10/13/22 10:24 10/13/22 10:24 Prepared 10/13/22 10:24	Analyzed 10/15/22 02:26 10/15/22 02:26 10/15/22 02:26 Analyzed 10/15/22 02:26	Dil Fac

4.97

164

mg/Kg

Eurofins Carlsbad

10/11/22 08:51

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3146-1

 Project/Site: MCA 94
 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

-			Per	cent Surrogate Rec
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20176-A-12-C MS	Matrix Spike	89	90	
880-20176-A-12-D MSD	Matrix Spike Duplicate	85	89	
890-3146-1	PH05	103	87	
LCS 880-36686/1-A	Lab Control Sample	84	90	
LCSD 880-36686/2-A	Lab Control Sample Dup	90	90	
MB 880-36686/5-A	Method Blank	103	84	
Surrogate Legend				
BFB = 4-Bromofluorobena	zene (Surr)			
DFBZ = 1,4-Difluorobenze	ene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20328-A-1-B MS	Matrix Spike	197 S1+	189 S1+	
880-20328-A-1-C MSD	Matrix Spike Duplicate	192 S1+	186 S1+	
890-3146-1	PH05	148 S1+	144 S1+	
LCS 880-36849/2-A	Lab Control Sample	69 S1-	86	
LCSD 880-36849/3-A	Lab Control Sample Dup	82	97	
MB 880-36849/1-A	Method Blank	121	130	

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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Client: Ensolum Job ID: 890-3146-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36686/5-A

Matrix: Solid

Analysis Batch: 36715

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36686

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:31	10/12/22 11:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/11/22 14:31	10/12/22 11:01	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed
4-Bromofluorobenzene (Surr)	103		70 - 130	10/11/22 14:31	10/12/22 11:01
1,4-Difluorobenzene (Surr)	84		70 - 130	10/11/22 14:31	10/12/22 11:01

Lab Sample ID: LCS 880-36686/1-A **Client Sample ID: Lab Control Sample**

mg/Kg

Prep Type: Total/NA

70 - 130

Prep Batch: 36686

Analysis Batch: 36715 Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 70 - 130 0.100 0.1008 mg/Kg 101 Toluene 0.100 mg/Kg 70 - 130 0.1020 102 Ethylbenzene 0.100 0.09606 mg/Kg 96 70 - 130 0.200 m-Xylene & p-Xylene 0.1983 mg/Kg 99 70 - 130

0.09918

0.100

LCS LCS

Surrogate	%Recovery (Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-36686/2-A

Matrix: Solid

o-Xylene

Matrix: Solid

Analysis Batch: 36715

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

Prep Batch: 36686

Spike	LCSD LCSD			%Rec		RPD
Added	Result Qualifier	Unit	D %Rec	Limits	RPD	Limit
0.100	0.1024	mg/Kg	102	70 - 130	2	35
0.100	0.1064	mg/Kg	106	70 - 130	4	35
0.100	0.09847	mg/Kg	98	70 - 130	2	35
0.200	0.2051	mg/Kg	103	70 - 130	3	35
0.100	0.1011	mg/Kg	101	70 - 130	2	35
	0.100 0.100 0.100 0.200	Added Result Qualifier 0.100 0.1024 0.100 0.1064 0.100 0.09847 0.200 0.2051	Added Result Qualifier Unit 0.100 0.1024 mg/Kg 0.100 0.1064 mg/Kg 0.100 0.09847 mg/Kg 0.200 0.2051 mg/Kg	Added Result Qualifier Unit D %Rec 0.100 0.1024 mg/Kg 102 0.100 0.1064 mg/Kg 106 0.100 0.09847 mg/Kg 98 0.200 0.2051 mg/Kg 103	Added Result Qualifier Unit D %Rec Limits 0.100 0.1024 mg/Kg 102 70 - 130 0.100 0.1064 mg/Kg 106 70 - 130 0.100 0.09847 mg/Kg 98 70 - 130 0.200 0.2051 mg/Kg 103 70 - 130	Added Result Qualifier Unit D %Rec Limits RPD 0.100 0.1024 mg/Kg 102 70 - 130 2 0.100 0.1064 mg/Kg 106 70 - 130 4 0.100 0.09847 mg/Kg 98 70 - 130 2 0.200 0.2051 mg/Kg 103 70 - 130 3

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1.4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-20176-A-12-C MS

Matrix: Solid

Analysis Batch: 36715

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

Prep Batch: 36686

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.0998	0.1018		mg/Kg		102	70 - 130	
Toluene	<0.00201	U	0.0998	0.1041		mg/Kg		104	70 - 130	

Eurofins Carlsbad

Dil Fac

QC Sample Results

Client: Ensolum Job ID: 890-3146-1 SDG: 03D2057010 Project/Site: MCA 94

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

Client Sample ID: Matrix Spike Lab Sample ID: 880-20176-A-12-C MS **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 36715** Prep Batch: 36686

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U	0.0998	0.09844		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2047		mg/Kg		103	70 - 130	
o-Xylene	< 0.00201	U	0.0998	0.1010		mg/Kg		101	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 880-20176-A-12-D MSD **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

Matrix: Solid

Prep Batch: 36686 **Analysis Batch: 36715** Sample Sample Spike MSD MSD %Rec **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 0.0996 70 - 130 Benzene <0.00201 U 0.09470 95 35 mg/Kg

	MSD MSD							
o-Xylene	<0.00201 U	0.0996	0.09149	mg/Kg	92	70 - 130	10	35
m-Xylene & p-Xylene	<0.00402 U	0.199	0.1862	mg/Kg	93	70 - 130	9	35
Ethylbenzene	<0.00201 U	0.0996	0.09061	mg/Kg	91	70 - 130	8	35
Toluene	<0.00201 U	0.0996	0.09624	mg/Kg	97	70 - 130	8	35

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 85 89 1,4-Difluorobenzene (Surr) 70 - 130

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

Lab Sample ID: MB 880-36849/1-A **Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA Analysis Batch: 36918** Prep Batch: 36849

MB MB Analyte Result Qualifier RL Unit **Prepared** Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 10/13/22 10:24 10/14/22 19:36 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 10/13/22 10:24 10/14/22 19:36 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 10/13/22 10:24 10/14/22 19:36

MB MB Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed

1-Chlorooctane 70 - 130 10/13/22 10:24 10/14/22 19:36 121 70 - 130 10/13/22 10:24 10/14/22 19:36 o-Terphenyl 130

Lab Sample ID: LCS 880-36849/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA**

Analysis Batch: 36918 Prep Batch: 36849 LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits 1000 1101 110 70 - 130 mg/Kg

Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over 1000 1057 mg/Kg 106 70 - 130 C10-C28)

Client: Ensolum Job ID: 890-3146-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: LCS 880-36849/2-A

Lab Sample ID: LCSD 880-36849/3-A

Lab Sample ID: 880-20328-A-1-B MS

Lab Sample ID: 880-20328-A-1-C MSD

Matrix: Solid

Analysis Batch: 36918

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36849

LCS LCS

Surrogate %Recovery Qualifier Limits 69 S1-1-Chlorooctane 70 - 130 o-Terphenyl 86 70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 36918

Prep Type: Total/NA

Prep Batch: 36849

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 991.9 mg/Kg 99 70 - 130 10 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1151 mg/Kg 115 70 - 130 8 20

C10-C28)

Matrix: Solid

Analysis Batch: 36918

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	97		70 - 130

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36849

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec <49.8 U Gasoline Range Organics 998 871.4 mg/Kg 86 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 998 1191 mg/Kg 119 70 - 130

C10-C28)

MS MS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	197	S1+	70 - 130
o-Terphenyl	189	S1+	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36849

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier RPD Added Result Qualifier Limits Limit Analyte Unit %Rec mg/Kg <49.8 U 998 830.5 82 70 - 130 5 20 Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 998 1172 mg/Kg 117 70 - 130 2 20

C10-C28)

Matrix: Solid

Analysis Batch: 36918

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	192	S1+	70 - 130
o-Terphenyl	186	S1+	70 - 130

Client: Ensolum Job ID: 890-3146-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36242/1-A

Client Sample ID: Method Blank

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Analysis Batch: 36598

Matrix: Solid

MB MB

Analyte Result Qualifier RL Unit Analyzed Dil Fac D Prepared 5.00 10/11/22 07:11 Chloride <5.00 U mg/Kg

Lab Sample ID: LCS 880-36242/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36598

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 260.6 90 - 110 mg/Kg 104

Lab Sample ID: LCSD 880-36242/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36598

Spike LCSD LCSD %Rec RPD Added Result Qualifier Limits **RPD** Limit **Analyte** Unit %Rec Chloride 250 260.8 104 90 - 110 20 mg/Kg

Lab Sample ID: 890-3142-A-1-B MS **Client Sample ID: Matrix Spike Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36598

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 5800 F1 2490 9310 F1 mg/Kg 141 90 - 110

Lab Sample ID: 890-3142-A-1-C MSD

Matrix: Solid

Analysis Batch: 36598

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit Limits RPD Limit %Rec Chloride 5800 F1 2490 9291 F1 140 20 mg/Kg 90 - 110 0

QC Association Summary

Client: Ensolum Job ID: 890-3146-1 Project/Site: MCA 94 SDG: 03D2057010

GC VOA

Prep Batch: 36686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3146-1	PH05	Total/NA	Solid	5035	
MB 880-36686/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36686/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36686/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20176-A-12-C MS	Matrix Spike	Total/NA	Solid	5035	
880-20176-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3146-1	PH05	Total/NA	Solid	8021B	36686
MB 880-36686/5-A	Method Blank	Total/NA	Solid	8021B	36686
LCS 880-36686/1-A	Lab Control Sample	Total/NA	Solid	8021B	36686
LCSD 880-36686/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36686
880-20176-A-12-C MS	Matrix Spike	Total/NA	Solid	8021B	36686
880-20176-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36686

Analysis Batch: 36794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3146-1	PH05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3146-1	PH05	Total/NA	Solid	8015 NM	

Prep Batch: 36849

Lab Sample ID 890-3146-1	Client Sample ID PH05	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-36849/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36849/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36849/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-20328-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-20328-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36918

Lab Sample ID 890-3146-1	Client Sample ID	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch
MB 880-36849/1-A	Method Blank	Total/NA	Solid	8015B NM	36849
LCS 880-36849/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36849
LCSD 880-36849/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36849
880-20328-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	36849
880-20328-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36849

HPLC/IC

Leach Batch: 36242

Released to Imaging: 1/20/2023 9:23:32 AM

Lab Sample ID 890-3146-1	Client Sample ID PH05	Prep Type Soluble	Matrix Solid	Method DI Leach	Prep Batch
MB 880-36242/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Job ID: 890-3146-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

HPLC/IC (Continued)

Leach Batch: 36242 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3142-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3142-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3146-1	PH05	Soluble	Solid	300.0	36242
MB 880-36242/1-A	Method Blank	Soluble	Solid	300.0	36242
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	300.0	36242
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36242
890-3142-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	36242
890-3142-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36242

Lab Chronicle

Client: Ensolum Job ID: 890-3146-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH05 Lab Sample ID: 890-3146-1

Date Collected: 10/04/22 14:00 **Matrix: Solid** Date Received: 10/05/22 09:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36686	10/11/22 14:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36715	10/12/22 15:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36794	10/12/22 16:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			36333	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36849	10/13/22 10:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36918	10/15/22 02:26	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		1			36598	10/11/22 08:51	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3146-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory: Eurofins Midland

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

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analyte	s are included in this rend	ort but the laboratory is r	not certified by the governing authority.	This list may include analytes for y
the agency does not	•	ore, but the laboratory is i	iot certified by the governing authority.	This list may include analytes for v
,	•	Matrix	Analyte	This list may include analytes for v
the agency does not	offer certification.	•		This list may include analytes for v

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Method Summary

 Client: Ensolum
 Job ID: 890-3146-1

 Project/Site: MCA 94
 SDG: 03D2057010

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-3146-1 SDG: 03D2057010

SDG: 03D2057010

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3146-1	PH05	Solid	10/04/22 14:00	10/05/22 09:10	3'

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eurofins Xenco Environment Testing

Phone:

City, State ZIP:

Midland, TX 79701

601 N Marienfeld St Suite 400

Project Manager:

Company Name:

Ensolum, LLC Kalei Jennings

SAMPLE RECEIPT

Ces No

Wet Ice:

(E)

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Parameters

Sampler's Name: Project Location: Project Number: Project Name:

Conner Shore

Due Date:

Routine

Rush

Turn Around

Email: kjennings@ensolum.com

City, State ZIP:

Midland, TX 79701

601 N Marienfeld St Suite 400

Company Name: Bill to: (if different)

> Ensolum, LLC Kalei Jennings

Address:

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

H₂SO₄: H₂ Cool: Cool

NaOH: Na

None: NO

DI Water: H₂O

MeOH: Me HNO3: HN

03D2057010

MCA 94

Chain of Custody

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

Work Order No:

988-3199	www.xenco.com Page 1 of 1
	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:
ANALYSIS REQUEST	QUEST Preservative Codes

Revised Date: 08/25/2020 Rev 2020.2		Ō					Si Si
		1 0	10/5/20 09/n	in fin	Baka G	A	B
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	ure)	Received by: (Signature)	gnature)	Relinquished by: (Signature)
	is standard terms and conditions circumstances beyond the control morced unless previously negotiated.	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.	nt company to Eurofins Xen or any losses or expenses ir opie submitted to Eurofins X	urchase order from clie me any responsibility f arge of \$5 for each san	of samples constitutes a valid p st of samples and shall not assu applied to each project and a ct	rent and relinquishment be liable only for the co- charge of \$85.00 will be	votice: Signature of this docun of service. Eurofins Xenco will of Eurofins Xenco. A minimum
_{Vg} SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471	Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn Mo Ni Se Ag Ti U Hg:1631/245.1/7470/7471	RA 13PPM Texas 11 AISb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo NiTCLP/SPLP6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Texas 11 Al Sb As Ba Be B 6 6010: 8RCRA Sb As Ba Be C	PM Texas 11 A PLP 6010: 8RCR	8RCRA 13PPM zed TCLP/SPLP	200.8 / 6020: etal(s) to be analy	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed
							18
							0
						101	
						04.	
NAPP2212531906					100		
Incident Number							
			×	3' G 2	10.04.22 1400	S	PH05
Sample Comments			CHLOF	Depth Grab/ # of Cont	Date Time Sampled Sampled	ition Matrix	Sample Identification
NaUH+Ascorbic Acid: SAPC	Na		015)	1.6	Corrected Temperature:		Total Containers:
Zn Acetate+NaOH: Zn	Zn	890-3146 Chain of Custody	_	· Se	N/A Temperature Reading:	Yes No NIA	Sample Custody Seals:
Na ₂ S ₂ O ₃ : NaSO ₃	Za		PA:	-0.3	Correction Factor:	Yes No NA	Cooler Custody Seals:
NaHSO ₄ : NABIS	Z			13 8 rai	Thermometer ID:	No No	Samples Received Intact:
	3			(Ces No	Tes No Wet Ice:	Temp Blank:	SAMPLE RECEIPT

Zn Acetate+NaOH: Zn Na₂S₂O₃: NaSO₃ NaHSO4: NABIS H3PO4: HP

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3146-1

 SDG Number: 03D2057010

Login Number: 3146 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3146-1 SDG Number: 03D2057010

Login Number: 3146 **List Source: Eurofins Midland** List Creation: 10/06/22 10:20 AM List Number: 2

Creator: Rodriguez, Leticia

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

Page 19 of 19

<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3174-1

Laboratory Sample Delivery Group: 03D2057010

Client Project/Site: MCA 94

For:

eurofins 🔅

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/17/2022 12:59:53 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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



Received by OCD: 12/22/2022 12:24:30 PM

Review your project results through EOL

Have a Question?



Visit us at: www.eurofinsus.com/Env

Released to Imaging: 1/20/2023 9:23:32 AM

Client: Ensolum Laboratory Job ID: 890-3174-1 Project/Site: MCA 94

SDG: 03D2057010

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Definitions/Glossary

Client: Ensolum Job ID: 890-3174-1 Project/Site: MCA 94 SDG: 03D2057010

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**

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

Duplicate Error Ratio (normalized absolute difference) **DER**

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE) DL

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

DLC Decision Level Concentration (Radiochemistry)

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) Minimum Detectable Concentration (Radiochemistry) MDC

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RI 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
 Job ID: 890-3174-1

 Project/Site: MCA 94
 SDG: 03D2057010

Job ID: 890-3174-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3174-1

Receipt

The samples were received on 10/6/2022 3:11 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH06 (890-3174-1), PH06 (890-3174-2), PH06 (890-3174-3) and PH06 (890-3174-4).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36884 and analytical batch 880-37019 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-36499 and analytical batch 880-36494 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.

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

HPLC/IC

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

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Lab Sample ID: 890-3174-1

10/10/22 07:38 10/10/22 18:50

 Client: Ensolum
 Job ID: 890-3174-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH06

Date Collected: 10/06/22 09:05 Date Received: 10/06/22 15:11

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F2 F1	0.00201	mg/Kg		10/13/22 13:49	10/16/22 11:42	1
Toluene	<0.00201	U F2 F1	0.00201	mg/Kg		10/13/22 13:49	10/16/22 11:42	1
Ethylbenzene	<0.00201	U F2 F1	0.00201	mg/Kg		10/13/22 13:49	10/16/22 11:42	1
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.00402	mg/Kg		10/13/22 13:49	10/16/22 11:42	1
o-Xylene	<0.00201	U F2 F1	0.00201	mg/Kg		10/13/22 13:49	10/16/22 11:42	1
Xylenes, Total	<0.00402	U F2 F1	0.00402	mg/Kg		10/13/22 13:49	10/16/22 11:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			10/13/22 13:49	10/16/22 11:42	1
1,4-Difluorobenzene (Surr)	106		70 - 130			10/13/22 13:49	10/16/22 11:42	1

Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/17/22 10:58	1
<u> </u>								

Method: SW846 8015 NM - Die	sei Range Org	anics (DRO) (GC)					
Analyte	Result Qua	alifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8 U	49.8	mg/Kg			10/11/22 10:34	1

Method: SW846 8015B NM - D Analyte	_	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/10/22 07:38	10/10/22 18:50	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/10/22 07:38	10/10/22 18:50	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/10/22 07:38	10/10/22 18:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			10/10/22 07:38	10/10/22 18:50	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	38.3	4.95	ma/Ka			10/12/22 15:52	

70 - 130

95

Client Sample ID: PH06

Date Collected: 10/06/22 09:10

Lab Sample ID: 890-3174-2

Matrix: Solid

Date Received: 10/06/22 15:11

Sample Depth: 5

o-Terphenyl

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 12:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 12:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 12:02	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/13/22 13:49	10/16/22 12:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 12:02	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/13/22 13:49	10/16/22 12:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			10/13/22 13:49	10/16/22 12:02	1

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Lab Sample ID: 890-3174-2

 Client: Ensolum
 Job ID: 890-3174-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH06

Date Collected: 10/06/22 09:10 Date Received: 10/06/22 15:11

Sample Depth: 5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	10/13/22 13:49	10/16/22 12:02	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/17/22 10:58	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			10/11/22 10:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/10/22 07:38	10/10/22 19:11	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/10/22 07:38	10/10/22 19:11	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/10/22 07:38	10/10/22 19:11	1
Surrogate	%Recovery	Qualifier	l imits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102	70 - 130	10/10/22 07:38	10/10/22 19:11	1
o-Terphenyl	110	70 - 130	10/10/22 07:38	10/10/22 19:11	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	142		5.05	mg/Kg			10/12/22 16:07	1

Client Sample ID: PH06

Lab Sample ID: 890-3174-3

Date Collected: 10/06/22 09:15

Matrix: Solid

Date Collected: 10/06/22 09:15 Date Received: 10/06/22 15:11

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		10/13/22 13:49	10/16/22 12:23	1
Toluene	< 0.00199	U	0.00199	mg/Kg		10/13/22 13:49	10/16/22 12:23	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		10/13/22 13:49	10/16/22 12:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/13/22 13:49	10/16/22 12:23	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		10/13/22 13:49	10/16/22 12:23	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/13/22 13:49	10/16/22 12:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			10/13/22 13:49	10/16/22 12:23	1

4-Bromofluorobenzene (Surr)	93	70 - 130	10/13/22 13:49	10/16/22 12:23	1
1,4-Difluorobenzene (Surr)	100	70 - 130	10/13/22 13:49	10/16/22 12:23	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			10/17/22 10:58	1

Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 L	J	49.9	mg/Kg	_		10/11/22 10:34	1

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Matrix: Solid

Lab Sample ID: 890-3174-3

Lab Sample ID: 890-3174-4

Client: Ensolum Job ID: 890-3174-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH06

Date Collected: 10/06/22 09:15 Date Received: 10/06/22 15:11

Sample Depth: 9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/10/22 07:38	10/10/22 19:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/10/22 07:38	10/10/22 19:32	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/10/22 07:38	10/10/22 19:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			10/10/22 07:38	10/10/22 19:32	1
o-Terphenyl	112		70 - 130			10/10/22 07:38	10/10/22 19:32	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	50.9		4.97	mg/Kg			10/12/22 16:12	1	

Client Sample ID: PH06

Date Collected: 10/06/22 09:20

Date Received: 10/06/22 15:11

Sample Depth: 12

Method: SW846 8021B - Volat Analyte	_	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199		0.00199	mg/Kg		10/13/22 13:49	10/16/22 12:43	1
Toluene	<0.00199		0.00199	mg/Kg		10/13/22 13:49	10/16/22 12:43	1
Ethylbenzene	<0.00199		0.00199	mg/Kg		10/13/22 13:49	10/16/22 12:43	1
m-Xylene & p-Xylene	<0.00398		0.00398	mg/Kg		10/13/22 13:49	10/16/22 12:43	
o-Xylene	<0.00199		0.00199	mg/Kg		10/13/22 13:49	10/16/22 12:43	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/13/22 13:49	10/16/22 12:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			10/13/22 13:49	10/16/22 12:43	1
1,4-Difluorobenzene (Surr)	100		70 - 130			10/13/22 13:49	10/16/22 12:43	1
Method: TAL SOP Total BTEX	- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/17/22 10:58	1
Method: SW846 8015 NM - Die	esel Range	Organics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/11/22 10:34	1
Method: SW846 8015B NM - D	iesel Range	e Organics	(DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/10/22 07:38	10/10/22 19:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/10/22 07:38	10/10/22 19:53	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/10/22 07:38	10/10/22 19:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Surrogate 1-Chlorooctane	%Recovery	Qualifier	Limits 70 - 130			Prepared 10/10/22 07:38	Analyzed 10/10/22 19:53	Dil Fac

Client Sample Results

Client: Ensolum Job ID: 890-3174-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH06 Lab Sample ID: 890-3174-4

Date Collected: 10/06/22 09:20 **Matrix: Solid**

Date Received: 10/06/22 15:11

Sample Depth: 12

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	33.2		4.98	mg/Kg			10/12/22 16:17	1		

Surrogate Summary

Client: Ensolum Job ID: 890-3174-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3174-1	PH06	94	106
890-3174-1 MS	PH06	102	99
890-3174-1 MSD	PH06	97	102
890-3174-2	PH06	93	104
890-3174-3	PH06	93	100
890-3174-4	PH06	101	100
LCS 880-36884/1-A	Lab Control Sample	95	108
LCSD 880-36884/2-A	Lab Control Sample Dup	91	105
MB 880-36884/5-A	Method Blank	89	111
MB 880-36974/5-A	Method Blank	94	108

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

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

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		1CO1	OTPH1					
Lab Sample ID	Client Sample ID	(70-130)	(70-130)					
890-3174-1	PH06	86	95					
890-3174-2	PH06	102	110					
890-3174-3	PH06	103	112					
890-3174-4	PH06	87	96					
890-3175-A-1-C MS	Matrix Spike	88	88					
890-3175-A-1-D MSD	Matrix Spike Duplicate	105	104					
LCS 880-36499/2-A	Lab Control Sample	95	104					
LCSD 880-36499/3-A	Lab Control Sample Dup	104	114					
MB 880-36499/1-A	Method Blank	94	103					

OTPH = o-Terphenyl

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1CO = 1-Chlorooctane

Client: Ensolum Job ID: 890-3174-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36884/5-A

Lab Sample ID: LCS 880-36884/1-A

Matrix: Solid

Analysis Batch: 37019

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36884

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 11:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 11:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 11:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/13/22 13:49	10/16/22 11:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:49	10/16/22 11:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/13/22 13:49	10/16/22 11:13	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed
4-Bromofluorobenzene (Surr)	89	70 - 130	10/13/22 13:49	10/16/22 11:13
1,4-Difluorobenzene (Surr)	111	70 - 130	10/13/22 13:49	10/16/22 11:13

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36884

Matrix: Solid Analysis Batch: 37019 Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 103 70 - 130 0.1031 mg/Kg

Toluene 0.100 0.09984 mg/Kg 100 70 - 130 Ethylbenzene 0.100 0.08607 mg/Kg 86 70 - 130 0.200 86 m-Xylene & p-Xylene 0.1715 mg/Kg 70 - 130 o-Xylene 0.100 0.08524 mg/Kg 85 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-36884/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid**

Analysis Batch: 37019

Prep Type: Total/NA Prep Batch: 36884

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08812		mg/Kg		88	70 - 130	16	35
Toluene	0.100	0.08699		mg/Kg		87	70 - 130	14	35
Ethylbenzene	0.100	0.07410		mg/Kg		74	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.1486		mg/Kg		74	70 - 130	14	35
o-Xylene	0.100	0.07442		mg/Kg		74	70 - 130	14	35

LCSD LCSD

Surrogate	%Recovery Qualific	er Limits
4-Bromofluorobenzene (Surr)	91	70 - 130
1,4-Difluorobenzene (Surr)	105	70 - 130

Lab Sample ID: 890-3174-1 MS

Matrix: Solid

Analysis Batch: 37019

Client Sample ID: PH06 Prep Type: Total/NA

Prep Batch: 36884

	Sample	Sample	Spike	MS	MS			%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit [%Rec	Limits	
Benzene	<0.00201	U F2 F1	0.100	0.04440	F1	mg/Kg	44	70 - 130	
Toluene	<0.00201	U F2 F1	0.100	0.05500	F1	mg/Kg	55	70 - 130	

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Client: Ensolum Job ID: 890-3174-1 Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: 890-3174-1 MS **Client Sample ID: PH06 Matrix: Solid Prep Type: Total/NA Analysis Batch: 37019** Prep Batch: 36884

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U F2 F1	0.100	0.05117	F1	mg/Kg		51	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.201	0.1031	F1	mg/Kg		51	70 - 130	
o-Xylene	<0.00201	U F2 F1	0.100	0.05409	F1	mg/Kg		54	70 - 130	

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 102 1,4-Difluorobenzene (Surr) 99 70 - 130

Lab Sample ID: 890-3174-1 MSD **Client Sample ID: PH06 Matrix: Solid Prep Type: Total/NA Analysis Batch: 37019** Prep Batch: 36884

Sample Sample Spike MSD MSD %Rec **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00201 U F2 F1 0.0996 0.09045 F2 mg/Kg 91 70 - 130 68 35 Toluene 0.0996 0.09442 F2 95 70 - 130 53 35 <0.00201 U F2 F1 mg/Kg Ethylbenzene <0.00201 UF2F1 0.0996 0.08216 F2 mg/Kg 82 70 - 130 46 35 m-Xylene & p-Xylene <0.00402 U F2 F1 0.199 0.1661 F2 mg/Kg 83 70 - 130 47 35 <0.00201 U F2 F1 0.0996 0.08174 F2 82 70 - 130 o-Xylene mg/Kg 41

MSD MSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 97 1,4-Difluorobenzene (Surr) 70 - 130 102

Lab Sample ID: MB 880-36974/5-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 37019

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/14/22 13:40	10/15/22 23:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/14/22 13:40	10/15/22 23:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/14/22 13:40	10/15/22 23:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/14/22 13:40	10/15/22 23:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/14/22 13:40	10/15/22 23:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/14/22 13:40	10/15/22 23:39	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	10/14/22 13:40	10/15/22 23:39	1
1,4-Difluorobenzene (Surr)	108		70 - 130	10/14/22 13:40	10/15/22 23:39	1

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

Lab Sample ID: MB 880-36499/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 36494** Prep Batch: 36499

	MB	MB						
Analyte	Result	Qualifier	RL	Uni	: D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/		10/10/22 07:38	10/10/22 11:01	1
(GRO)-C6-C10								

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Prep Batch: 36974

1-Chlorooctane

o-Terphenyl

 Client: Ensolum
 Job ID: 890-3174-1

 Project/Site: MCA 94
 SDG: 03D2057010

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

Lab Sample ID: MB 880-36499/1-A
Matrix: Solid
Analysis Batch: 36494

MB MB

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36499

ı		MB	MB						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	_	10/10/22 07:38	10/10/22 11:01	1
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/10/22 07:38	10/10/22 11:01	1
		МВ	MB						
	Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
	1-Chlorooctane	94		70 - 130			10/10/22 07:38	10/10/22 11:01	1
	o-Terphenyl	103		70 - 130			10/10/22 07:38	10/10/22 11:01	1

Lab Sample ID: LCS 880-364 Matrix: Solid Analysis Batch: 36494	199/2-A				Clier	nt Sai	mple ID	Prep Type: Total/NA Prep Batch: 36499
-		Spike	LCS	LCS				%Rec
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10		1000	867.7		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)		1000	909.1		mg/Kg		91	70 - 130
	LCS LCS							
Surrogate	%Recovery Qualifier	Limits						

70 - 130

70 - 130

Lab Sample ID: LCSD 880-36499/3-A Matrix: Solid Analysis Batch: 36494	Matrix: Solid			Client Sam	ple	ID: Lat	Control S Prep Ty Prep B	pe: Tot	al/NA
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	919.2		mg/Kg	_	92	70 - 130	6	20
Diesel Range Organics (Over	1000	966.8		mg/Kg		97	70 - 130	6	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	114		70 - 130

95 104

Lab Sample ID: 890-3175-A-1-C MS	Client Sample ID: Matrix Spike
Matrix: Solid	Prep Type: Total/NA

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

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Prep Batch: 36499

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Analysis Batch: 36494

Client: Ensolum Job ID: 890-3174-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: 890-3175-A-1-D MSD

Matrix: Solid

Analysis Batch: 36494

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36499

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: PH06

Prep Type: Soluble

MSD MSD

Limits Surrogate %Recovery Qualifier 70 - 130 1-Chlorooctane 105 o-Terphenyl 104 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36520/1-A

Matrix: Solid

Analysis Batch: 36820

MR MR

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 5.00 mg/Kg 10/12/22 15:38

Lab Sample ID: LCS 880-36520/2-A

Matrix: Solid

Analysis Batch: 36820

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits 250 256.7 Chloride 103 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-36520/3-A

Matrix: Solid

Analysis Batch: 36820

LCSD LCSD Spike %Rec **RPD** Added Result Qualifier RPD **Analyte** Unit D %Rec Limits Limit Chloride 250 257.3 mg/Kg 103 90 - 110 0

Lab Sample ID: 890-3174-1 MS

Matrix: Solid

Analysis Batch: 36820

MS MS Sample Sample Spike %Rec **Analyte** Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 38.3 248 287.9 mg/Kg 101 90 - 110

Lab Sample ID: 890-3174-1 MSD

Matrix: Solid

Analysis Batch: 36820

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 38.3 248 101 288.7 mg/Kg 90 - 110

Eurofins Carlsbad

Client Sample ID: PH06 Prep Type: Soluble

QC Association Summary

 Client: Ensolum
 Job ID: 890-3174-1

 Project/Site: MCA 94
 SDG: 03D2057010

GC VOA

Prep Batch: 36884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-1	PH06	Total/NA	Solid	5035	
890-3174-2	PH06	Total/NA	Solid	5035	
890-3174-3	PH06	Total/NA	Solid	5035	
890-3174-4	PH06	Total/NA	Solid	5035	
MB 880-36884/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36884/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36884/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3174-1 MS	PH06	Total/NA	Solid	5035	
890-3174-1 MSD	PH06	Total/NA	Solid	5035	

Prep Batch: 36974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36974/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 37019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-1	PH06	Total/NA	Solid	8021B	36884
890-3174-2	PH06	Total/NA	Solid	8021B	36884
890-3174-3	PH06	Total/NA	Solid	8021B	36884
890-3174-4	PH06	Total/NA	Solid	8021B	36884
MB 880-36884/5-A	Method Blank	Total/NA	Solid	8021B	36884
MB 880-36974/5-A	Method Blank	Total/NA	Solid	8021B	36974
LCS 880-36884/1-A	Lab Control Sample	Total/NA	Solid	8021B	36884
LCSD 880-36884/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36884
890-3174-1 MS	PH06	Total/NA	Solid	8021B	36884
890-3174-1 MSD	PH06	Total/NA	Solid	8021B	36884

Analysis Batch: 37134

Lab Sample ID 890-3174-1	Client Sample ID PH06	Prep Type Total/NA	Matrix Solid	Method Total BTEX	Prep Batch
890-3174-2	PH06	Total/NA	Solid	Total BTEX	
890-3174-3	PH06	Total/NA	Solid	Total BTEX	
890-3174-4	PH06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-1	PH06	Total/NA	Solid	8015B NM	36499
890-3174-2	PH06	Total/NA	Solid	8015B NM	36499
890-3174-3	PH06	Total/NA	Solid	8015B NM	36499
890-3174-4	PH06	Total/NA	Solid	8015B NM	36499
MB 880-36499/1-A	Method Blank	Total/NA	Solid	8015B NM	36499
LCS 880-36499/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36499
LCSD 880-36499/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36499
890-3175-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36499
890-3175-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36499

Prep Batch: 36499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-1	PH06	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Job ID: 890-3174-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

GC Semi VOA (Continued)

Prep Batch: 36499 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-2	PH06	Total/NA	Solid	8015NM Prep	
890-3174-3	PH06	Total/NA	Solid	8015NM Prep	
890-3174-4	PH06	Total/NA	Solid	8015NM Prep	
MB 880-36499/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36499/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36499/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3175-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3175-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-1	PH06	Total/NA	Solid	8015 NM	
890-3174-2	PH06	Total/NA	Solid	8015 NM	
890-3174-3	PH06	Total/NA	Solid	8015 NM	
890-3174-4	PH06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-1	PH06	Soluble	Solid	DI Leach	_
890-3174-2	PH06	Soluble	Solid	DI Leach	
890-3174-3	PH06	Soluble	Solid	DI Leach	
890-3174-4	PH06	Soluble	Solid	DI Leach	
MB 880-36520/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36520/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36520/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3174-1 MS	PH06	Soluble	Solid	DI Leach	
890-3174-1 MSD	PH06	Soluble	Solid	DI Leach	

Analysis Batch: 36820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3174-1	PH06	Soluble	Solid	300.0	36520
890-3174-2	PH06	Soluble	Solid	300.0	36520
890-3174-3	PH06	Soluble	Solid	300.0	36520
890-3174-4	PH06	Soluble	Solid	300.0	36520
MB 880-36520/1-A	Method Blank	Soluble	Solid	300.0	36520
LCS 880-36520/2-A	Lab Control Sample	Soluble	Solid	300.0	36520
LCSD 880-36520/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36520
890-3174-1 MS	PH06	Soluble	Solid	300.0	36520
890-3174-1 MSD	PH06	Soluble	Solid	300.0	36520

Job ID: 890-3174-1

Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH06 Lab Sample ID: 890-3174-1

Date Collected: 10/06/22 09:05 Matrix: Solid Date Received: 10/06/22 15:11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36884	10/13/22 13:49	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37019	10/16/22 11:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37134	10/17/22 10:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			36667	10/11/22 10:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	36499	10/10/22 07:38	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36494	10/10/22 18:50	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	36520	10/10/22 10:05	СН	EET MID
Soluble	Analysis	300.0		1			36820	10/12/22 15:52	CH	EET MID

Client Sample ID: PH06 Lab Sample ID: 890-3174-2 **Matrix: Solid**

Date Collected: 10/06/22 09:10 Date Received: 10/06/22 15:11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36884	10/13/22 13:49	MNR	EET MII
Total/NA	Analysis	8021B		1	5 mL	5 mL	37019	10/16/22 12:02	MNR	EET MII
Total/NA	Analysis	Total BTEX		1			37134	10/17/22 10:58	SM	EET MI
Total/NA	Analysis	8015 NM		1			36667	10/11/22 10:34	SM	EET MII
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	36499	10/10/22 07:38	AM	EET MII
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36494	10/10/22 19:11	SM	EET MII
Soluble	Leach	DI Leach			4.95 g	50 mL	36520	10/10/22 10:05	СН	EET MI
Soluble	Analysis	300.0		1			36820	10/12/22 16:07	CH	EET MI

Client Sample ID: PH06 Lab Sample ID: 890-3174-3 Date Collected: 10/06/22 09:15 Matrix: Solid

Date Received: 10/06/22 15:11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36884	10/13/22 13:49	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37019	10/16/22 12:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37134	10/17/22 10:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			36667	10/11/22 10:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36499	10/10/22 07:38	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36494	10/10/22 19:32	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36520	10/10/22 10:05	СН	EET MID
Soluble	Analysis	300.0		1			36820	10/12/22 16:12	CH	EET MID

Client Sample ID: PH06 Lab Sample ID: 890-3174-4 Date Collected: 10/06/22 09:20 **Matrix: Solid**

Date Received: 10/06/22 15:11

Released to Imaging: 1/20/2023 9:23:32 AM

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	36884	10/13/22 13:49	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37019	10/16/22 12:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37134	10/17/22 10:58	SM	EET MID

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Lab Chronicle

 Client: Ensolum
 Job ID: 890-3174-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH06

Date Collected: 10/06/22 09:20

Lab Sample ID: PH06

Lab Sample ID: 890-3174-4

Matrix: Solid

Date Received: 10/06/22 15:11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			36667	10/11/22 10:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36499	10/10/22 07:38	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36494	10/10/22 19:53	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36520	10/10/22 10:05	CH	EET MID
Soluble	Analysis	300.0		1			36820	10/12/22 16:17	CH	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3174-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory: Eurofins Midland

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

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	he following analytes are included in this report, but the laboratory agency does not offer certification. Prep Method Matrix	ELAP	T104704400-22-24	06-30-23
The following analyte	s are included in this repo	ort but the laboratory is r	not certified by the governing authority	This list may include analytes for w
the agency does not		, 24: 1	iot continue by the governing dutherty.	This list may include analytes for w
the agency does not of Analysis Method	offer certification.	•	Analyte	This list may include unarytes for w
0 ,	offer certification.	Matrix	, , ,	This list may include analytes for w

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Method Description

Total BTEX Calculation

Microextraction

Volatile Organic Compounds (GC)

Diesel Range Organics (DRO) (GC)

Diesel Range Organics (DRO) (GC)

Deionized Water Leaching Procedure

Anions, Ion Chromatography

Closed System Purge and Trap

Method Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-3174-1 SDG: 03D2057010

Laboratory	
EET MID	
EET MID	
EET MID	5

Laboratory
EET MID

Protocol References:

Method

Total BTEX

8015 NM

300.0

5035

8015B NM

8015NM Prep

DI Leach

8021B

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-3174-1

SDG: 03D2057010

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3174-1	PH06	Solid	10/06/22 09:05	10/06/22 15:11	1
890-3174-2	PH06	Solid	10/06/22 09:10	10/06/22 15:11	5
890-3174-3	PH06	Solid	10/06/22 09:15	10/06/22 15:11	9
890-3174-4	PH06	Solid	10/06/22 09:20	10/06/22 15:11	12

eurofins **Environment Testing**

Chain of Custody

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

	Work Order No:	
	www.xenco.com Page 2 of 1	
	Work Order Comments	
	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
	State of Project:	
	Reporting: Level II Level III PST/UST TRRP Level IV	
_1	ADABT TO Other	

		9	Relinquished by: (Signature)	rvice. Eurofins Xenco will be liab rofins Xenco. A minimum charge	e: Signature of this document and	cle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010 200	1	13	9				PH06	PH06	PH06	PH06	Sample Identification	al Containers:	nple Custody Seals: Yes	oler Custody Seals: Yes	nples Received Intact:	MPLE RECEIPT 1	井		ect Location:
			re) /	of \$85.00 will b	d relinquishmer) to be anal	200.8 / 6020:				4	0)		S	S	S	S	Matrix		S NO NIA	S NO (NIA)	Yes No	emp Blank:		Conner Shore	
	4	1/10/1/	Regeiv	ost of samples a se applied to eac	nt of samples co	yzed						0	P	10.06.22	10.06.22	10.06.22	10.06.22	Date Sampled	Corrected 1	Temperature Reading:	Correction Factor	Thermometer ID:	(Fes) No		оге	
-			Requived by: (Signature)	sh project and a	nstitutes a valid	TCLP / S	8RCRA 13					1	\	920	915	910	905	Time Sampled	Corrected Temperature:	e Reading:	Factor:	er ID:	Wet Ice:	the lab, if red	TAT starts th	
			ature)	charge of \$5 for	purchase order	TCLP / SPLP 6010: 8RCRA	PPM Texas						1	12'	9	מַ	- <u>-</u>	Depth Co	9.1	5	0	OOM	(Yes) No	the lab, if received by 4:30pm	TAT starts the day received by	
_		0		each sam	from clier	8RCR/	5 11 A	-	-	H	-	+	-	<u>ا</u>	G 1	് ച	G 	Grab/ # of Comp Cont			_	<u> </u>	nete		φ	1
		BE-9-0	Date	pie submi	t compan	11	Sb A			$\dagger \dagger$	+	\dagger		×	×	×	×	CHLO	RIDE	S (E	PA:	: 300).0)	1		
		5	Date/Time	tted to Eu	y to Euro	Sb As Ba	s Ba E							×	×	×	×	TPH (8	015							_
6	4	N 2		irofins Xen	fins Xenco	Be Cd	e B C		-	\prod	+	-	L	×	×	×	×	ВТЕХ	(802	1				+		_
			Relinquished by: (Signature)	ervice. 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 chemical process are the control of the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the chemical process are the control of the cost of samples and shall not assume any losses or expenses incurred by the chemical process are the control of the cost of samples and shall not satisfied to expenses incurred by the chemical process are the cost of samples and shall not satisfied to expenses and the chemical process are the cost of samples and shall not satisfied to expenses and the chemical process are the cost of samples and shall not satisfied to expenses and the chemical process are the cost of samples and shall not satisfied to expenses and the chemical process are the cost of samples and shall not satisfied to expenses and the chemical process are the cost of samples and shall not satisfied to expenses and the chemical process are the chemical process and the chemical process are the chemical process and the chemical process are the chemical process.	ce: 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	Cd Cr Co Cu Pb Mn Mo Ni Se	Ca Cr Co Cu Fe Pb Mg Mi													Coc-31/4 Chain of Custody						_
			Received by: (Signature)	Ill be enforced unless previously negotiated.	is standard terms and conditions	Se Ag TI U Hg: 1631 / 24	K Se A												200		ı Z	Z	H ₃	Ha		
Revised Date: 08/25/2020 Rev. 2020 2			Date/Time			Hg: 1631 / 245.1 / /4/0 / /4/1	r TI Sn U V Zn							NAPP2212531906	Incident Number			Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSO4: NABIS	H ₃ PO ₄ : HP	H ₂ SU ₄ : H ₂ NaOH: Na		

Tot Sar Sar Pro

Phone:

Project Number:

03D2057010 MCA 94

Routine

Rush

Pres. Code

Turn Around

ANALYSIS REQUEST

None: NO

DI Water: H₂O

Preservative Codes

Email:

kjennings@ensolum.com

roject Name:

City, State ZIP:

Midland, TX 79701

601 N Marienfeld St Suite 400

Address:

601 N Marienfeld St Suite 400

City, State ZIP:

Midland, TX 79701

Bill to: (if different)

Company Name:

Ensolum, LLC Kalei Jennings

Project Manager:

Kalei Jennings

Ensolum, LLC

Company Name: Address:

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3174-1

SDG Number: 03D2057010

Login Number: 3174 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

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10/17/2022

Login Sample Receipt Checklist

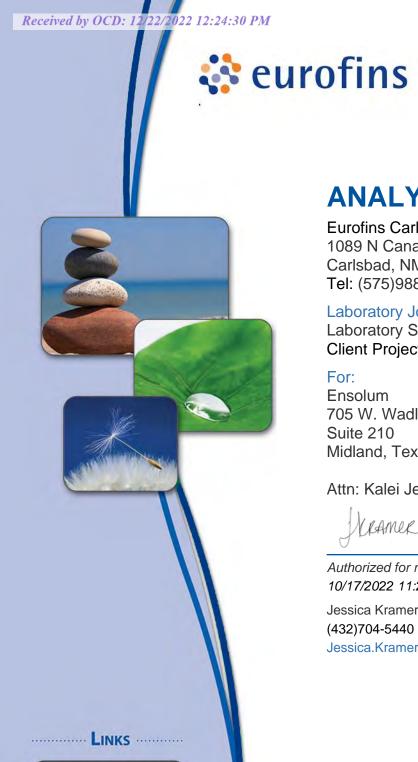
Client: Ensolum Job Number: 890-3174-1 SDG Number: 03D2057010

Login Number: 3174 **List Source: Eurofins Midland** List Creation: 10/10/22 08:41 AM List Number: 2

Creator: Rodriguez, Leticia

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

<6mm (1/4").



Review your project results through

EOL

Have a Question?

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Released to Imaging: 1/20/2023 9:23:32 AM

Visit us at:

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3176-1

Laboratory Sample Delivery Group: 03D2057010

Client Project/Site: MCA 94

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/17/2022 11:20:55 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

signature is intended to be the legally binding equivalent of a traditionally handwritten

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

This report has been electronically signed and authorized by the signatory. Electronic

Client: Ensolum
Project/Site: MCA 94
Laboratory Job ID: 890-3176-1
SDG: 03D2057010

Table of Contents

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Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
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Definitions/Glossary

 Client: Ensolum
 Job ID: 890-3176-1

 Project/Site: MCA 94
 SDG: 03D2057010

Qualifiers

GC VOA

 Qualifier
 Qualifier Description

 F1
 MS and/or MSD recovery exceeds control limits.

F2 MS/MSD RPD exceeds control limits

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

GC Semi VOA

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

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.

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

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

NC Not Calculated

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

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

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Case Narrative

Job ID: 890-3176-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

Job ID: 890-3176-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3176-1

Receipt

The samples were received on 10/6/2022 3:11 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH05 (890-3176-1) and PH05 (890-3176-2).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36609 and analytical batch 880-36928 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: PH05 (890-3176-1). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-36499 and analytical batch 880-36494 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.

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

HPLC/IC

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

Matrix: Solid

Lab Sample ID: 890-3176-1

Client: Ensolum Job ID: 890-3176-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH05

Date Collected: 10/06/22 09:00 Date Received: 10/06/22 15:11

Sample Depth: 10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 13:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 13:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 13:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/10/22 16:53	10/15/22 13:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 13:46	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/10/22 16:53	10/15/22 13:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	51	S1-	70 - 130			10/10/22 16:53	10/15/22 13:46	1
1,4-Difluorobenzene (Surr)	72		70 - 130			10/10/22 16:53	10/15/22 13:46	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/14/22 12:21	1
Method: SW846 8015 NM - Diese Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	
	•	Qualifier	,	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/11/22 10:34	
Analyte		Qualifier U	RL 49.8		<u>D</u>	Prepared		
Analyte Total TPH	Result <49.8	Qualifier U	RL 49.8		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.8	Qualifier Unics (DRO) Qualifier	RL 49.8	mg/Kg	=		10/11/22 10:34	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.8 sel Range Orga	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC)	mg/Kg	=	Prepared	10/11/22 10:34 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 49.8 sel Range Orga Result <49.8 49.8	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg	=	Prepared 10/10/22 07:38	10/11/22 10:34 Analyzed 10/10/22 20:15	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.8 sel Range Orga Result <49.8 <49.8	Qualifier U nics (DRO) Qualifier U U	RL 49.8 (GC) RL 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/10/22 07:38 10/10/22 07:38	10/11/22 10:34 Analyzed 10/10/22 20:15 10/10/22 20:15	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.8 (GC) RL 49.8 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/10/22 07:38 10/10/22 07:38	Analyzed 10/10/22 20:15 10/10/22 20:15	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/10/22 07:38 10/10/22 07:38 10/10/22 07:38 Prepared	Analyzed 10/10/22 20:15 10/10/22 20:15 10/10/22 20:15 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/10/22 07:38 10/10/22 07:38 10/10/22 07:38 Prepared 10/10/22 07:38	Analyzed 10/10/22 20:15 10/10/22 20:15 10/10/22 20:15 Analyzed 10/10/22 20:15	Dil Fac 1 1 Dil Fac 1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	=	Prepared 10/10/22 07:38 10/10/22 07:38 10/10/22 07:38 Prepared 10/10/22 07:38	Analyzed 10/10/22 20:15 10/10/22 20:15 10/10/22 20:15 Analyzed 10/10/22 20:15	

Client Sample ID: PH05 Lab Sample ID: 890-3176-2 Date Collected: 10/04/22 14:30 Matrix: Solid

Date Received: 10/06/22 15:11

Sample Depth: 12

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/13/22 13:16	10/14/22 00:41	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/13/22 13:16	10/14/22 00:41	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/13/22 13:16	10/14/22 00:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/13/22 13:16	10/14/22 00:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/13/22 13:16	10/14/22 00:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/13/22 13:16	10/14/22 00:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			10/13/22 13:16	10/14/22 00:41	

Matrix: Solid

Lab Sample ID: 890-3176-2

Client Sample Results

 Client: Ensolum
 Job ID: 890-3176-1

 Project/Site: MCA 94
 SDG: 03D2057010

Client Sample ID: PH05

Date Collected: 10/04/22 14:30
Date Received: 10/06/22 15:11

Sample Depth: 12

Method: SW846 8021R	- Volatile Organi	ic Compounds (GC) (Continued)

Surrogate	%Recovery Qualifi		Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103	70 - 130	10/13/22 13:16	10/14/22 00:41	1

	V T (I DTEV 0 I I I I
Method: TAL SOP Total BTE	X - Iotal BIEX Calculation

Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTFX	<0.00398	U	0.00398	ma/Ka			10/14/22 12:21	1

Method: SW846 8015 NM - Diesel Range	Organics	(DRO)	(GC)
Michiga. Offoro out of this - Dieser Range	Organics	(DIXO)	100)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	ma/Ka		.	10/11/22 10:34	1

Method: SW846 8015B	NM - Diesel Rand	ne Organics	(DRO)	(GC)
Method. 344040 00 13D	IAIM - DIESEL IZALI	ge Organics	(DICO)	(90)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/10/22 07:38	10/10/22 20:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/10/22 07:38	10/10/22 20:36	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/10/22 07:38	10/10/22 20:36	1
0	0/ 5	O!!!!				D	A l	D:// E

Surrogate	%Recovery G	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	10/10/22 07	:38 10/10/22 20:36	1
o-Terphenyl	113		70 - 130	10/10/22 07	:38 10/10/22 20:36	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
l	Chloride	7310		49.7	mg/Kg			10/13/22 11:37	10

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Surrogate Summary

 Client: Ensolum
 Job ID: 890-3176-1

 Project/Site: MCA 94
 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3150-A-23-C MS	Matrix Spike	120	90	
390-3150-A-23-D MSD	Matrix Spike Duplicate	98	87	
90-3176-1	PH05	51 S1-	72	
90-3176-2	PH05	100	103	
90-3176-2 MS	PH05	107	107	
90-3176-2 MSD	PH05	105	103	
CS 880-36609/1-A	Lab Control Sample	89	84	
.CS 880-36882/1-A	Lab Control Sample	105	102	
CSD 880-36609/2-A	Lab Control Sample Dup	96	93	
CSD 880-36882/2-A	Lab Control Sample Dup	100	98	
IB 880-36609/5-A	Method Blank	100	80	
MB 880-36684/5-A	Method Blank	103	84	
MB 880-36731/5-A	Method Blank	88	108	
MB 880-36882/5-A	Method Blank	88	114	
Surrogate Legend				
BFB = 4-Bromofluorober	nzene (Surr)			
DFBZ = 1,4-Difluorobenz	zene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3175-A-1-C MS	Matrix Spike	88	88	
890-3175-A-1-D MSD	Matrix Spike Duplicate	105	104	
890-3176-1	PH05	90	100	
890-3176-2	PH05	102	113	
LCS 880-36499/2-A	Lab Control Sample	95	104	
LCSD 880-36499/3-A	Lab Control Sample Dup	104	114	
MB 880-36499/1-A	Method Blank	94	103	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum Job ID: 890-3176-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36609/5-A

Matrix: Solid Analysis Batch: 36928 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36609

	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 08:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 08:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 08:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 16:53	10/15/22 08:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 16:53	10/15/22 08:53	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 16:53	10/15/22 08:53	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prej	oared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	10/10/2	22 16:53	10/15/22 08:53	1
1,4-Difluorobenzene (Surr)	80		70 - 130	10/10/2	22 16:53	10/15/22 08:53	1

Lab Sample ID: LCS 880-36609/1-A

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36609

ı		Spike	LCS	LCS				%Rec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Benzene	0.100	0.09563	-	mg/Kg		96	70 - 130	
	Toluene	0.100	0.09823		mg/Kg		98	70 - 130	
	Ethylbenzene	0.100	0.09267		mg/Kg		93	70 - 130	
ĺ	m-Xylene & p-Xylene	0.200	0.1924		mg/Kg		96	70 - 130	
	o-Xylene	0.100	0.09704		mg/Kg		97	70 - 130	
ı									

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1,4-Difluorobenzene (Surr)	84	70 - 130

Lab Sample ID: LCSD 880-36609/2-A

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36609

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Limit Benzene 0.100 0.09888 mg/Kg 99 70 - 130 3 35 Toluene 0.100 0.1027 mg/Kg 103 70 - 130 4 35 Ethylbenzene 0.100 0.09791 mg/Kg 98 70 - 130 6 35 0.200 0.2013 m-Xylene & p-Xylene mg/Kg 101 70 - 130 35 0.100 0.1024 102 o-Xylene mg/Kg 70 - 130 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-3150-A-23-C MS

Matrix: Solid

Analysis Batch: 36928

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

Prep Batch: 36609

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U F1 F2	0.100	0.04224	F1	mg/Kg	_	42	70 - 130	
Toluene	<0.00200	U F1 F2	0.100	0.05595	F1	mg/Kg		56	70 - 130	

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QC Sample Results

Client: Ensolum Job ID: 890-3176-1 Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: 890-3150-A-23-C MS

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36609

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ethylbenzene	<0.00200	U F1	0.100	0.06608	F1	mg/Kg		66	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1334	F1	mg/Kg		67	70 - 130
o-Xylene	<0.00200	U	0.100	0.07676		mg/Kg		77	70 - 130

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36609

Lab Sample ID: 890-3150-A-23-D MSD **Matrix: Solid**

Analysis Batch: 36928

Sample Sample Spike MSD MSD RPD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.0990 Benzene <0.00200 U F1 F2 0.08809 F2 mg/Kg 89 70 - 130 70 35 Toluene 0.0990 0.09250 F2 93 70 - 130 <0.00200 UF1F2 mg/Kg 49 35 Ethylbenzene <0.00200 UF1 0.0990 0.08628 mg/Kg 87 70 - 130 27 35 0.198 0.1727 87 70 - 130 35 m-Xylene & p-Xylene < 0.00399 U F1 mg/Kg 26 <0.00200 U 0.0990 0.09104 92 70 - 130 o-Xylene mg/Kg 17

MSD MSD

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1,4-Difluorobenzene (Surr)	87	70 - 130

Lab Sample ID: MB 880-36684/5-A

Matrix: Solid

Analysis Batch: 36928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36684

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:22	10/14/22 22:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:22	10/14/22 22:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:22	10/14/22 22:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/11/22 14:22	10/14/22 22:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 14:22	10/14/22 22:12	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/11/22 14:22	10/14/22 22:12	1

MB MB

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Surrogate	%Recovery	Qualifier	Limits	Prepare	∌d	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	10/11/22 1	4:22	10/14/22 22:12	1
1,4-Difluorobenzene (Surr)	84		70 - 130	10/11/22 1	4:22	10/14/22 22:12	1

Lab Sample ID: MB 880-36731/5-A

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36731

Analyte	Result Qualif	ier RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
Toluene	<0.00200 U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
Ethylbenzene	<0.00200 U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
m-Xylene & p-Xylene	<0.00400 U	0.00400	mg/Kg		10/12/22 10:00	10/13/22 11:21	

Client: Ensolum Job ID: 890-3176-1 SDG: 03D2057010 Project/Site: MCA 94

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

Lab Sample ID: MB 880-36731/5-A

Matrix: Solid

Analysis Batch: 36813

Client Sample	e ID: N	lethod E	Blank
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Prep Type: Total/NA

Prep Batch: 36731

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/12/22 10:00	10/13/22 11:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/12/22 10:00	10/13/22 11:21	1

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	1112 1112				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88	70 - 130	10/12/22 10:00	10/13/22 11:21	1
1,4-Difluorobenzene (Surr)	108	70 - 130	10/12/22 10:00	10/13/22 11:21	1

Lab Sample ID: MB 880-36882/5-A **Client Sample ID: Method Blank**

Matrix: Solid

Analysis Batch: 36813

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Prep Type: Total/NA

Prep Batch: 36882

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:16	10/14/22 00:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:16	10/14/22 00:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:16	10/14/22 00:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/13/22 13:16	10/14/22 00:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/13/22 13:16	10/14/22 00:12	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/13/22 13:16	10/14/22 00:12	1

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Surrogate	%Recovery	Qualifier	Limits	Prepare	ed Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	10/13/22 1	3:16 10/14/22 00:12	2 1
1,4-Difluorobenzene (Surr)	114		70 - 130	10/13/22 1	3:16 10/14/22 00:12	2 1

Lab Sample ID: LCS 880-36882/1-A

Matrix: Solid

Analysis Batch: 36813

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

Prep Batch: 36882

Spike	LCS	LCS				%Rec	
Added	Result	Qualifier	Unit	D	%Rec	Limits	
0.100	0.09905		mg/Kg		99	70 - 130	
0.100	0.1048		mg/Kg		105	70 - 130	
0.100	0.09399		mg/Kg		94	70 - 130	
0.200	0.1893		mg/Kg		95	70 - 130	
0.100	0.09263		mg/Kg		93	70 - 130	
	Added 0.100 0.100 0.100 0.200	Added Result 0.100 0.09905 0.100 0.1048 0.100 0.09399 0.200 0.1893	Added Result Qualifier 0.100 0.09905 0.1048 0.100 0.1048 0.100 0.200 0.1893	Added Result Qualifier Unit 0.100 0.09905 mg/Kg 0.100 0.1048 mg/Kg 0.100 0.09399 mg/Kg 0.200 0.1893 mg/Kg	Added Result Qualifier Unit D 0.100 0.09905 mg/Kg 0.100 0.1048 mg/Kg 0.100 0.09399 mg/Kg 0.200 0.1893 mg/Kg	Added Result Qualifier Unit D %Rec 0.100 0.09905 mg/Kg 99 0.100 0.1048 mg/Kg 105 0.100 0.09399 mg/Kg 94 0.200 0.1893 mg/Kg 95	Added Result Qualifier Unit D %Rec Limits 0.100 0.09905 mg/Kg 99 70 - 130 0.100 0.1048 mg/Kg 105 70 - 130 0.100 0.09399 mg/Kg 94 70 - 130 0.200 0.1893 mg/Kg 95 70 - 130

LCS LCS

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	105	70 - 130
1,4-Difluorobenzene (Surr)	102	70 ₋ 130

Lab Sample ID: LCSD 880-36882/2-A

Released to Imaging: 1/20/2023 9:23:32 AM

Matrix: Solid

Analysis Batch: 36813

Client Samp	le ID: Lab	Control	Sample	Dup
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Prep Type: Total/NA

Prep Batch: 36882

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09547		mg/Kg		95	70 - 130	4	35
Toluene	0.100	0.1023		mg/Kg		102	70 - 130	2	35
Ethylbenzene	0.100	0.09025		mg/Kg		90	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1844		mg/Kg		92	70 - 130	3	35
o-Xylene	0.100	0.09137		mg/Kg		91	70 - 130	1	35

Client: Ensolum

Job ID: 890-3176-1 SDG: 03D2057010

Project/Site: MCA 94

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

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-3176-2 MS

Matrix: Solid

Analysis Batch: 36813

Sample Sample Spike MS MS

Client Sample ID: PH05

Prep Type: Total/NA

Prep Batch: 36882

%Rec

	Campic	Campic	Opino	1110	IVIO				/01 1CC	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0998	0.08802		mg/Kg		88	70 - 130	
Toluene	<0.00199	U	0.0998	0.09314		mg/Kg		93	70 - 130	
Ethylbenzene	<0.00199	U	0.0998	0.08368		mg/Kg		84	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1692		mg/Kg		85	70 - 130	
o-Xylene	<0.00199	U	0.0998	0.08385		mg/Kg		84	70 - 130	

MS MS

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

Lab Sample ID: 890-3176-2 MSD

Matrix: Solid

Analysis Batch: 36813

Client Sample ID: PH05 Prep Type: Total/NA Prep Batch: 36882

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.100	0.08044		mg/Kg		80	70 - 130	9	35
Toluene	<0.00199	U	0.100	0.08412		mg/Kg		84	70 - 130	10	35
Ethylbenzene	<0.00199	U	0.100	0.07598		mg/Kg		76	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1542		mg/Kg		77	70 - 130	9	35
o-Xylene	<0.00199	U	0.100	0.07544		mg/Kg		75	70 - 130	11	35

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 105
 70 - 130

 1,4-Difluorobenzene (Surr)
 103
 70 - 130

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

Lab Sample ID: MB 880-36499/1-A

Matrix: Solid

Analysis Batch: 36494

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 36499

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/10/22 07:38 10/10/22 11:01 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 10/10/22 07:38 10/10/22 11:01 C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 10/10/22 07:38 10/10/22 11:01 mg/Kg

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	10/10/22 07:38	10/10/22 11:01	1
o-Terphenyl	103		70 - 130	10/10/22 07:38	10/10/22 11:01	1

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Job ID: 890-3176-1

Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

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

Lab Sample ID: LCS 880-36499/2-A **Matrix: Solid**

Analysis Batch: 36494

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 36499

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	867.7		mg/Kg		87	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	909.1		mg/Kg		91	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	104		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36499

Lab Sample ID: LCSD 880-36499/3-A Matrix: Solid

Analysis Batch: 36494

	Spike	LCSD	LCSD			%Rec		RPD
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	919.2		mg/Kg	92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	966.8		mg/Kg	97	70 - 130	6	20

LCSD LCSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 104 70 - 130 o-Terphenyl 114 70 - 130

Lab Sample ID: 890-3175-A-1-C MS

Matrix: Solid

Analysis Batch: 36494

Client Sample	ID: Matrix Spike
---------------	-------------------------

Prep Type: Total/NA

Prep Batch: 36499

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

Lab Sample ID: 890-3175-A-1-D MSD

Matrix: Solid

Analysis Batch: 36494

Client Sam	ple ID:	Matrix S	Spike	Duplicate

Prep Type: Total/NA

Prep Batch: 36499

	MSD N	MSD .	
Surrogate	%Recovery 0	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Ternhenyl	104		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36520/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36820

мв мв Result Qualifier Unit Analyte RL Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 10/12/22 15:38

RPD

QC Sample Results

Client: Ensolum Job ID: 890-3176-1 Project/Site: MCA 94 SDG: 03D2057010

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-36520/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36820

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 256.7 mg/Kg 103 90 - 110

Lab Sample ID: LCSD 880-36520/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36820

Spike LCSD LCSD %Rec Added Analyte Result Qualifier Unit D %Rec

Limit Limits RPD Chloride 250 257.3 mg/Kg 103 90 - 110 0

Lab Sample ID: 890-3175-A-7-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Soluble

Analysis Batch: 36820

MS MS %Rec Spike Sample Sample Analyte Result Qualifier Added Result Qualifier Unit Limits Chloride 261 248 515.1 103 90 - 110 mg/Kg

Lab Sample ID: 890-3175-A-7-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36820

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Qualifier Unit %Rec RPD Limit Result Limits 516.5 Chloride 261 248 103 90 - 110 0 20 mg/Kg

QC Association Summary

Client: Ensolum Job ID: 890-3176-1 Project/Site: MCA 94 SDG: 03D2057010

GC VOA

Prep Batch: 36609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Total/NA	Solid	5035	
MB 880-36609/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36609/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36609/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3150-A-23-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3150-A-23-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 36684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36684/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 36731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36731/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-2	PH05	Total/NA	Solid	8021B	36882
MB 880-36731/5-A	Method Blank	Total/NA	Solid	8021B	36731
MB 880-36882/5-A	Method Blank	Total/NA	Solid	8021B	36882
LCS 880-36882/1-A	Lab Control Sample	Total/NA	Solid	8021B	36882
LCSD 880-36882/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36882
890-3176-2 MS	PH05	Total/NA	Solid	8021B	36882
890-3176-2 MSD	PH05	Total/NA	Solid	8021B	36882

Prep Batch: 36882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-2	PH05	Total/NA	Solid	5035	
MB 880-36882/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36882/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36882/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3176-2 MS	PH05	Total/NA	Solid	5035	
890-3176-2 MSD	PH05	Total/NA	Solid	5035	

Analysis Batch: 36928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Total/NA	Solid	8021B	36609
MB 880-36609/5-A	Method Blank	Total/NA	Solid	8021B	36609
MB 880-36684/5-A	Method Blank	Total/NA	Solid	8021B	36684
LCS 880-36609/1-A	Lab Control Sample	Total/NA	Solid	8021B	36609
LCSD 880-36609/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36609
890-3150-A-23-C MS	Matrix Spike	Total/NA	Solid	8021B	36609
890-3150-A-23-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36609

Analysis Batch: 36967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Total/NA	Solid	Total BTEX	
890-3176-2	PH05	Total/NA	Solid	Total BTEX	

QC Association Summary

 Client: Ensolum
 Job ID: 890-3176-1

 Project/Site: MCA 94
 SDG: 03D2057010

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Analysis Batch: 36494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Total/NA	Solid	8015B NM	36499
890-3176-2	PH05	Total/NA	Solid	8015B NM	36499
MB 880-36499/1-A	Method Blank	Total/NA	Solid	8015B NM	36499
LCS 880-36499/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36499
LCSD 880-36499/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36499
890-3175-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36499
890-3175-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36499

Prep Batch: 36499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Total/NA	Solid	8015NM Prep	
890-3176-2	PH05	Total/NA	Solid	8015NM Prep	
MB 880-36499/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36499/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36499/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3175-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3175-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Total/NA	Solid	8015 NM	
890-3176-2	PH05	Total/NA	Solid	8015 NM	

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Leach Batch: 36520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Soluble	Solid	DI Leach	
890-3176-2	PH05	Soluble	Solid	DI Leach	
MB 880-36520/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36520/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36520/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3175-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3175-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3176-1	PH05	Soluble	Solid	300.0	36520
890-3176-2	PH05	Soluble	Solid	300.0	36520
MB 880-36520/1-A	Method Blank	Soluble	Solid	300.0	36520
LCS 880-36520/2-A	Lab Control Sample	Soluble	Solid	300.0	36520
LCSD 880-36520/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36520
890-3175-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	36520
890-3175-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36520

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Client: Ensolum Job ID: 890-3176-1 Project/Site: MCA 94 SDG: 03D2057010

Client Sample ID: PH05

Lab Sample ID: 890-3176-1 Date Collected: 10/06/22 09:00

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36609	10/10/22 16:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36928	10/15/22 13:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36967	10/14/22 12:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36668	10/11/22 10:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	36499	10/10/22 07:38	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36494	10/10/22 20:15	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36520	10/10/22 10:05	CH	EET MID
Soluble	Analysis	300.0		10			36820	10/13/22 11:32	CH	EET MID

Client Sample ID: PH05 Lab Sample ID: 890-3176-2

Date Collected: 10/04/22 14:30 **Matrix: Solid**

Date Received: 10/06/22 15:11

Date Received: 10/06/22 15:11

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 5.03 g 5 mL 36882 10/13/22 13:16 MNR EET MID 8021B Total/NA 5 mL 10/14/22 00:41 **EET MID** Analysis 1 5 mL 36813 MNR Total/NA Total BTEX 36967 10/14/22 12:21 Analysis 1 AJ **EET MID** Total/NA Analysis 8015 NM 36668 10/11/22 10:34 SM **EET MID** Total/NA 36499 10/10/22 07:38 Prep 8015NM Prep 10.00 g 10 mL AM **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 36494 10/10/22 20:36 SM **EET MID** Soluble 5.03 g 10/10/22 10:05 EET MID Leach DI Leach 50 mL 36520 CH Soluble Analysis 300.0 10 36820 10/13/22 11:37 СН **EET MID**

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3176-1

 Project/Site: MCA 94
 SDG: 03D2057010

Laboratory: Eurofins Midland

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

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

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Method Summary

Job ID: 890-3176-1 Client: Ensolum Project/Site: MCA 94 SDG: 03D2057010

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: MCA 94 Job ID: 890-3176-1

SDG: 03D2057010

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3176-1	PH05	Solid	10/06/22 09:00	10/06/22 15:11	10
890-3176-2	PH05	Solid	10/04/22 14:30	10/06/22 15:11	12

ircle Method(s) and Metal(s) to be analyzed

Total 200.7 / 6010

200.8 / 6020:

ice: 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

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se

Ag SiO₂ Na Sr

TI Sn U V Zn

Hg: 1631 / 245.1 / 7470 / 7471

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Chain of Custody

Preservative Codes	QUEST	ANALYSIS REQUEST	Turn Around	MCA 94		ect Name:
ADaPT LJ Other:	Deliverables: EDD L ADal	m.com	Email: kjennings@ensolum.com	Ema		ne:
Reporting: Level II Level III PST/UST TRRP Level IVL	Reporting: Level II Level III P	Midland, TX 79701	City, State ZIP:	(79701	Midland, TX 79701	State ZIP:
	State of Project:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400	601 N Mari	ress:
wnfields 🗌 RRC 🔲 Superfund 🔲	Program: UST/PST [] PRP[] Brownfields [] RRC [] Superfund [Ensolum, LLC	Company Name:	LC	Ensolum, LLC	npany Name:
Work Order Comments	Work Order	Kalei Jennings	Bill to: (if different)	ngs	Kalei Jennings	ect Manager:
www.xenco.com Page 1 of 1	www.xenco.con	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Hobbs, NN			
7		EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	EL Paso, T	Xenco		
0:	Work Order No:	Houston, TX (281) 240-4200. Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio. TX (210) 509-3334	Houston, Midland, TX	Environment Testing	Tins	eurofins
		•			7	68

Project Manager:

Company Name:

Sampler's Name:

Conner Shore

Project Location:

Project Number:

03D2057010

Routine

Rush

Due Date:

Cool: Cool

HNO3: HN MeOH: Me

NaOH: Na

None: NO

DI Water: H₂O

Project Name:

Phone:

City, State ZIP: Address:

SAMPLE RECEIPT

Cooler Custody Seals:

ample Custody Seals:

Yes No Yes No Yes No Temp Blank:

Z Z

Temperature Reading: Correction Factor:

0.

CHLORIDES (EPA: 300.0)

890-3176 Chain of Custody

Corrected Temperature:

Thermometer ID:

Yes No

Wet Ice:

S

Parameters

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

Sample Identification PH05 PH05

Matrix

Date Sampled

Time Sampled

Comp

Cont # 0

Grab/

TPH (8015)

BTEX (8021

S

10.04.22 10.06.22

1430 900

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Samples Received Intact:

WORK Order No.
www.xenco.com Page 2 of 1
Work Order Comments
gram: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
e of Project:
orting: Level II □Level III □ PST/UST □ TRRP □ Level IV□
verables: EDD
Preservative Codes

Eurofins Xenco. A minimum charge of \$85.	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 cilerit if such losses are due to circumstances beyond the control Eurofins Xenco. A minimum charge of \$5.00 will be applied to each project and a charge of \$6 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated	ibility for any losses or expenses in ach sample submitted to Eurofins X	incurred by the cilent if such losses are due to c Xenco, but not analyzed. These terms will be en	ircumstances beyond the control forced unless previously negotiated.	
Relinquished by: (Signature)	Requived by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
andre	ONE DI	10.193 1215 15 15 15 12	2		
			4		
			6		
				20	Revised Date: 08/25/2020 Rev 2020

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NaOH+Ascorbic Acid: SAPC

Sample Comments

NAPP2212531906 Incident Number Zn Acetate+NaOH: Zn

Na₂S₂O₃: NaSO₃ NaHSO4: NABIS H₃PO₄: HP H₂SO₄: H₂

10/17/2022

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3176-1 SDG Number: 03D2057010

Login Number: 3176 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3176-1

 SDG Number: 03D2057010

List Source: Eurofins Midland List Creation: 10/10/22 11:59 AM

List Number: 2 Creator: Kramer, Jessica

Login Number: 3176

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	N/A	

4

5

9

11

13

14

<6mm (1/4").



APPENDIX E

Final C-141

<u>District I</u> 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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible l	Party			OGRID		
Contact Nam	e			Contact T	elephone	
Contact emai	1			Incident #	t (assigned by OCL	0)
Contact maili	ng address			<u> </u>		
			Location	of Release S	ource	
Latitude				Longitude		
			(NAD 83 in dec	cimal degrees to 5 deci	mal places)	
Site Name				Site Type		
Date Release	Discovered			API# (if ap	plicable)	
Unit Letter	Section	Township	Range	Cou	nty	
Surface Owner				l Volume of		ne volumes provided below)
Crude Oil		Volume Release		calculations of specific		overed (bbls)
Produced	Water	Volume Release	d (bbls)		Volume Rec	overed (bbls)
		Is the concentrate produced water	ion of dissolved c	hloride in the	Yes 1	No
Condensat	te	Volume Release			Volume Rec	overed (bbls)
Natural G	as	Volume Release	d (Mcf)		Volume Rec	overed (Mcf)
Other (des	scribe)	Volume/Weight	Released (provide	e units)	Volume/Wei	ight Recovered (provide units)
Cause of Rele	ease					

Received by OCD: 12/22/2022 12:24:30/PM State of New Mexico Page 2 Oil Conservation Division

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Incident ID		
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Facility ID		
Application ID		

Was this a major release as defined by	If YES, for what reason(s) does the respon	nsible party consider this a major release?
19.15.29.7(A) NMAC?		
☐ Yes ☐ No		
If VES, was immediate no	otice given to the OCD? By whom? To what	om? When and by what means (phone, email, etc)?
11 1 E.S., was illilliediate lic	Since given to the OCD: By whom: To wi	oni: when and by what means (phone, eman, etc):
	Initial Ro	esponse
The responsible p	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
	s been secured to protect human health and	the environment.
☐ Released materials ha	ave been contained via the use of berms or c	ikes, absorbent pads, or other containment devices.
☐ All free liquids and re	ecoverable materials have been removed and	d managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain	why:
has begun, please attach a	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred clease attach all information needed for closure evaluation.
		best of my knowledge and understand that pursuant to OCD rules and
		fications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have
		at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
and/or regulations.		
Printed Name		Title:
Signature: _	tanteparte _	Date:
		Telephone:
OCD Only		
Received by:Jocelyn I	Harimon	Date: 05/05/2022

L48 Spill Volume Estimate Form NAPP2212531906_{of 213} Received by OCD: 12/22/2022 12:24:30 RM Asset Area: Maljamar Release Discovery Date & Time: 4/28/2022 0:00 Release Type: Produced Water Provide any known details about the event: Injection line leak. BBLS were recoverd due to the extremely dry and sandy area. Spill Calculation - Subsurface Spill - Rectangle Was the release on pad or off-pad? See reference table below rained at least a half inch in the last 24 hours? See reference table below Total Estimated Length Width Depth Estimated volume of each area Soil Spilled-Fluid Saturation Volume of Spill (ft.) (ft.) (in.) (bbl.) (bbl.) 125.0 6.0 6.00 15.12% 66.750 10.093 75.0 5.0 7.00 15.12% 38,938 5.887 250.0 6.0 6.00 15.12% 133,500 20.185 587,400 88.815 55.0 30.0 24.00 15.12% 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 Released to Imaging: 1/20/2023 9:23:32/AM 124,980 Total Volume Release:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 104337

CONDITIONS

Operator:	OGRID:
CONOCOPHILLIPS COMPANY	217817
600 W. Illinois Avenue	Action Number:
Midland, TX 79701	104337
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created E	y Condition	Condition Date
jharimo	n None	5/5/2022

e of New Mexico

Incident ID	NAPP2212531906
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>50-100 (fe</u> et 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?	X Yes No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vecontamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	rtical extents of soil
<u>Characterization Report Checklist</u> : 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 well 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 	lls.

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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HSE Specialist

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Incident ID	NAPP2212531906	
District RP		
Facility ID		
Application ID		

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	tifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have reat to groundwater, surface water, human health or the environment. In
Printed Name: Bryce Wagoner	Title: Permian HSE Specialist II
Signature:	Date:12/22/2022
email:Bryce.Wagoner@mavresources.com	Telephone:928-241-1862
OCD Only Received by:	Date:12/22/2022

	Page 212 of 2	<i>13</i>
Incident ID	NAPP2212531906	
District RP		
Facility ID		
Application ID		

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.			
 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) 			
<u>Deferral Requests Only</u> : Each of the following items must be confirmed as part of any request for deferral of remediation.			
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.			
Extents of contamination must be fully delineated.			
Contamination does not cause an imminent risk to human health, the environment, or groundwater.			
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: 12/22/2022 Telephone: 928-241-1862 Telephone: 928-241-1862			
OCD Only			
Received by: Jocelyn Harimon Date:12/22/2022			
☐ Approved			
Signature: Dannifer Nobili Date: 01/20/2023			

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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 169617

CONDITIONS

Operator:	OGRID:
Maverick Permian LLC	331199
1111 Bagby Street Suite 1600	Action Number:
Houston, TX 77002	169617
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Variance approved for chloride analyses only. Composite confirmation soil samples will be collected from the bottom of the excavation from areas representing no more than four hundred (400) square feet. Composite confirmation samples will be collected from the sidewalls of the excavation from areas representing no more than two hundred (200) square feet.	1/20/2023