

July 7, 2023

New Mexico Oil Conservation Division

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

Re: Closure Request

MCA 400

Incident Number NAPP2305455050

Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this Closure Request to document assessment and soil sampling activities at the MCA 400 (Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of crude oil and produced water at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, Maverick is submitting this Closure Request and requesting no further action for Incident Number NAPP2305455050.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit L, Section 27, Township 17 South, Range 32 East, in Lea County, New Mexico (32.805161° N, -103.760712° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On February 13, 2022, internal corrosion of a nipple on the wellhead caused the release of approximately 3.0 barrels (bbls) of crude oil and 12.6 barrels (bbls) of produced water onto the surface of the well pad and into the pasture area south of the pad. A vacuum truck was immediately dispatched to the site and recovered 2.5 barrels of free-standing fluid. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on February 17, 2022. The release was assigned Incident Number NAPP2305455050.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on regional groundwater well data. The closest permitted groundwater well with depth to groundwater data is the New Mexico office of the State Engineer (NMOSE) well RA 12721 POD 5, located approximately 0.33 miles southwest of the site. The groundwater well has a reported depth to

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 601 North Marienfield , Suite 400 | Midland, TX 78209 | ensolum.com

Maverick Permian, LLC Closure Request MCA 400

groundwater of 124 feet bgs. Ground surface elevation at the groundwater well location is 3,964 feet above mean sea level (amsl) which is 28 feet lower in elevation than the site.

The closest continuously flowing water or significant watercourse to the Site is a freshwater pond, located approximately 3,000 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

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

SITE ASSESSMENT AND SOIL SAMPLE ACTIVITIES

Maverick conducted an initial scrape of the saturated soil immediately after identifying the release. Between February 16, 2023, and May 17, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Assessment soil samples SS01 through SS03, SS05, SS06, and SS10 though SS15 were collected from a depth of 0.5 feet bgs within the release extent to assess for the presence or absence of impacted soil resulting from the release; samples SS10 and SS11 were collected within the pasture release extent south of the pad. Assessment soil samples SS04 and SS07 through SS09 were collected around the release extent from a depth of 0.5 feet bgs to confirm the lateral extent of the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following contaminants of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for assessment samples SS01 through SS03, SS05, SS06 and SS10 though SS15, collected within the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria, and assessment samples SS10 and SS11 were compliant with the reclamation requirements. Laboratory analytical results for assessment samples SS04 and SS07 through SS09, collected around the release extent, indicated all COC concentrations were compliant with the most



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stringent Table I Closure Criteria, and successfully defined the lateral extent of the release. However, vertical delineation activities were warranted to further confirm the absence of impacted soil.

Between March 31, 2023, and May 17, 2023, Ensolum personnel were at to the Site to complete vertical delineation activities to further confirm the absence of impacted soil. Boreholes were advanced via hand auger to a depth of 1-foot bgs at the locations of assessment samples SS01 through SS15. One soil sample was collected from each borehole at a depth of 1-foot bgs (SS01A through SS15A). Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations for the boreholes were logged on lithologic soil sampling logs, which are included in Appendix B. The soil samples were collected, handled, and analyzed following the same procedures as described above. The soil sample locations are depicted on Figure 2. Photographic documentation was completed during the Site visits and a photographic log is included in Appendix C.

Laboratory analytical results for borehole assessment samples SS01A through SS15A indicated all COC concentrations were compliant with the Site Closure Criteria, and assessment samples SS10A and SS11A were compliant with the reclamation requirements. Additionally, the release was vertically delineated to the most stringent Table I Closure Criteria by soil samples SS04A, SS06A, and SS11A through SS15A. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment activities were conducted to assess for the presence or absence of impacted soil resulting from the February 13, 2023, release of crude oil and produced water at the Site. Assessment soil samples were collected within and around the release extent from depths ranging from 0.5 feet to 1-foot bgs. Laboratory analytical results for the assessment soil samples indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements, where applicable. Additionally, the release was laterally and vertically delineated to the most stringent Table I Closure Criteria.

Based on initial response efforts, depth to groundwater greater than 100 feet bgs, and soil sample laboratory analytical results compliant with the Site Closure Criteria, no further remediation was required. Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2305455050. NMOCD notifications are provided in Appendix E and the final C-141 is attached as Appendix F.



Maverick Permian, LLC Closure Request MCA 400

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

Kalui Jennings

Aimee Cole Senior Managing Scientist

Since Cale

cc: Bryce Wagoner, Maverick Permian, LLC

Bureau of Land Management

Appendices:

Figure 1 Site Receptor Map

Figure 2 Assessment Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records
Appendix B Lithologic / Soil Sampling Logs

Appendix C Photographic Log

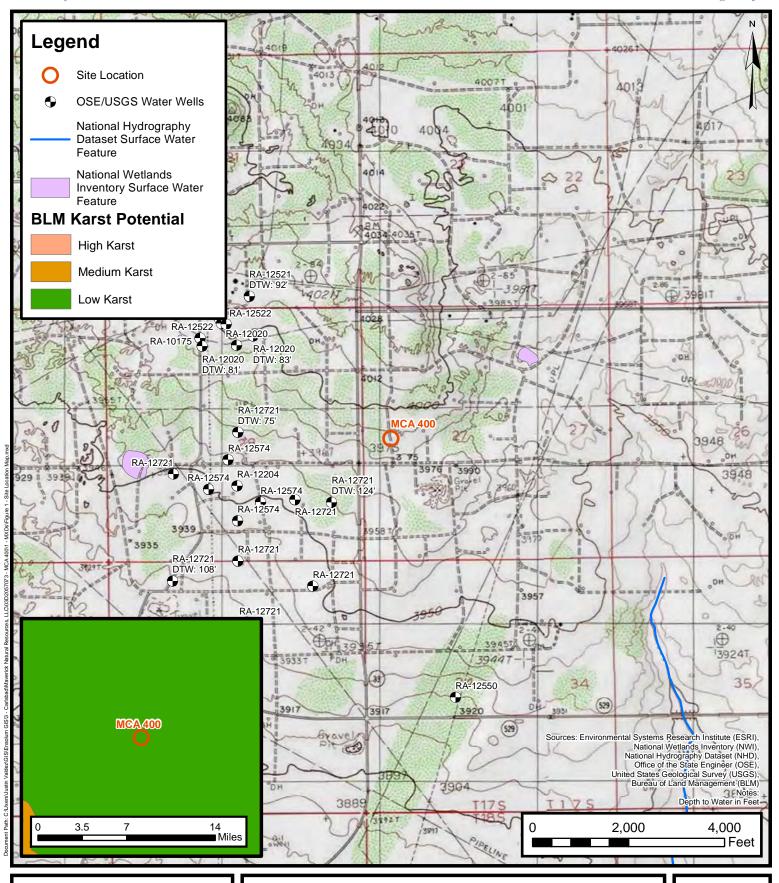
Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix E NMOCD Notifications

Appendix F Final C-141



FIGURES



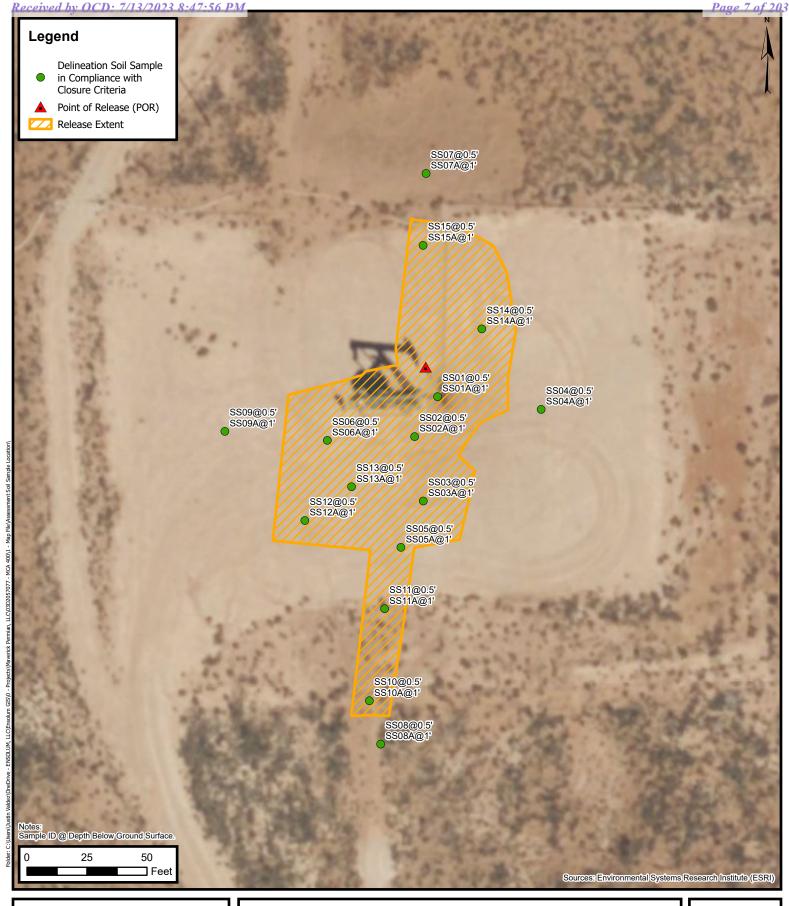


Site Location Map

Maverick Permian, LLC MCA 400

Unit L, Sec 27, T17S, R32E Lea County, New Mexico Incident Number: NAPP2305455050 FIGURE

1





Delineation Soil Sample Locations

Maverick Permian, LLC MCA 400

Incident Number: NAPP2305455050 Unit L, Section 27, Township 17 South, Range 32 East Lea County, New Mexico

FIGURE 2



TABLES

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SOIL SAMPLE ANALYTICAL RESULTS MCA 400 Maverick Permian, LLC Lea County, New Mexico												
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)		
NMOCD Table 1	Closure Criteria (N	MAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000		
				Assess	ment Soil Samp	les						
SS01	02/16/2023	0.5	<0.00198	<0.00397	<49.9	85.6	<49.9	85.6	85.6	7,680		
SS01A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,840		
SS02	02/16/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	7,270		
SS02A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,800		
SS03	02/16/2023	0.5	0.153	0.153	<50.0	<50.0	<50.0	<50.0	<50.0	10,800		
SS03A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,000		
SS04	03/17/2023	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	62.2		
SS04A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352		
SS05	02/16/2023	0.5	0.172	0.172	<49.8	<49.8	<49.8	<49.8	<49.8	8,460		
SS05A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,920		
SS06	02/16/2023	0.5	<0.00200	<0.00399	275	448	<50.0	723	723	6,300		
SS06A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400		
SS07	02/16/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97		
SS07A	03/31/2023	1	<0.050	<0.0300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
SS08	02/16/2023	0.5	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	<5.00		
SS08A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SS09	02/16/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	14.0		
SS09A	03/31/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
SS10	05/17/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SS10A	05/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SS11	05/17/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112		
SS11A	05/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0		
SS12	05/17/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0		
SS12A	05/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SS13	05/17/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448		
SS13A	05/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0		
SS14	05/17/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SS14A	05/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SS15	05/17/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,010		
SS15A	05/17/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480		

TABLE 1

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

TPH: Total Petroleum Hydrocarbon GRO: Gasoline Range Organics DRO: Diesel Range Organics ORO: Oil Range Organics Received by OCD: 7/13/2023 8:47:56 PM

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria

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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
 Q64 Q16 Q4
 Sec
 Tws
 Rng
 X
 Y

 NA
 RA 12721 POD5
 2 4 4 28 178 32E
 615650 3629961

Driller Name: WHITE, JOHNNOWN.GENER

Drill Start Date: 04/27/2020 **Drill Finish Date:** 04/28/2020 **Plug Date:**

Log File Date: 05/18/2020 **PCW Rcv Date:** Source: Shallow

Pump Type: Pipe Discharge Size: Estimated Yield:

Casing Size: 2.00 Depth Well: 130 feet Depth Water: 124 feet

Water Bearing Stratifications:

Top Bottom Description

109 121 Sandstone/Gravel/Conglomerate
121 125 Sandstone/Gravel/Conglomerate
125 130 Sandstone/Gravel/Conglomerate

Casing Perforations:

Top Bottom
90 130

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.

3/13/23 4:07 PM

POINT OF DIVERSION SUMMARY



						-						
	OSE POD NO	(WELL NO			WELL TAG ID NO.			OSE FILE NO	S).			
<u>0</u>	MW-10		1005					RA-12721				
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O	ConocoPhi	illips Com	pany					432-258-345	51			
II.	WELL OWN							CITY		STA		ZIP
WEI	901 W Wa	Il St, Suite	e 100					Midland		TX	,	79701
2	WELL		DE	GREES	MINUTES	SECON	DS					
L A]	LOCATIO	N LA	TITUDE	32	48	5.50	6 N	* ACCURACY	REQUIRED: ONE TEN	TH OF	A SECOND	
3RA	(FROM GP	rs)	NGITUDE	103	45	53.2	23 W	* DATUM REC	QUIRED: WGS 84			
GENERAL AND WELL LOCATION	DESCRIPTION		NG WELL LOCATION TO	STREET ADDRE	SS AND COMMON	LANDMA	RKS – PLS	S (SECTION, TO	WNSHJIP, RANGE) WH	ERE A	VAILABLE	
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	LICENSE NO		NAME OF LICENSED		ohn W. White				NAME OF WELL DR		G COMPANY g Company, Inc.	
	WD-1											
	04/27/		DRILLING ENDED 04/28/2020	DEPTH OF COM	IPLETED WELL (FI 130.0	Γ)	BORE HOI	LE DEPTH (FT)	DEPTH WATER FIR		COUNTERED (FT) 24.25	
	01/2//		0 1/20/2020						STATIC WATER LEV		· · · · · · · · · · · · · · · · · · ·	II (ET)
7	COMPLETE	WELL IS:	ARTESIAN	DRY HOLE	SHALLO	W (UNCON	NFINED)		STATIC WATER LEV		4.25	LL (FI)
2. DRILLING & CASING INFORMATION	DRILLING FI	LUID:	✓ AIR	☐ MUD	ADDITIV	ES – SPEC	IFY:					
MA.	DRILLING M	ETHOD:	ROTARY	☐ HAMMER	CABLE T	OOL	OTHE	R – SPECIFY:				
FOR												<u> </u>
Z	DEPTH	• •	BORE HOLE	CASING M	IATERIAL AND GRADE	D/OR		SING	CASING		ASING WALL	SLOT
ING	FROM	TO	DIAM (inches)		ich casing string,			IECTION YPE	INSIDE DIAM. (inches)	1	(inches)	SIZE (inches)
CAS	-2.7	90.0	6.0		ections of screen) ch. 40 PVC			ing diameter) ireads	2.0		1/4"	<u> </u>
8	90.0	130.0	6.0		ch. 40 PVC			reads	2.0		1/4"	.010
Ĭ	90.0	130.0	0.0	3	ICII. 40 F VC		11	ireaus	2.0	_	1/4	.010
ĮŪ.												
7												
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7	FROM	TO	BORE HOLE DIAM. (inches)		EL PACK SIZE-				(cubic feet)		METHO: PLACEM	
(RI/	0.0	10.0	6.0	Type	2 Portland Ceme	nt w/5% ł	Bentonite	Grout	1.963		Pump Mix w/T	remie Pine
ATI	10.0	87.0	6.0	, , ,		ite Chips			22 Bags		Hand N	
Σ	87.0	130.0	6.0			0 Sand			16 Bags		Hand N	
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3. A												
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001 JT PAY 18 2020 20.10

WELL TAG ID NO.

PAGE 1 OF 2

LOCATION

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	0.0	0.5	0.5		Calicl	ne base			Y	✓ N	
	0.5	2.0	1.5		Brown san	d/sandstone	•		Y	✓ N	
	2.0	3.0	1.0		Red/brown s	and/sandston	e		Y	✓N	
	3.0	17.0	14.0		Cal	iche			Y	√N	
	17.0	28.0	11.0		Light brown s	sand/sandsto	ne		Y	√N	
T	28.0	37.0	9.0		Red/brown s	and/sandston	e		Y	✓ N	
HYDROGEOLOGIC LOG OF WELL	37.0	42.0	5.0		Light brown	sand/sandstor	ne		Y	✓N	
OF	42.0	49.0	7.0		Red/brown s	ilty sandston	e		Y	✓N	
90	49.0	52.0	3.0		Gray sa	andstone			Y	√N	
101	52.0	60.0	8.0	Purple	e, gray and light b	rown layers	of sandstone	Ī	Y	√N	
907	60.0	80.0	20.0		Purple/brov	vn sandstone			Y	√N	
EO	80.0	98.0	18.0		Brown and	tan sandstone	;		Y	√N	
ROC	98.0	109.0	11.0		Light gray to	an sandtstone	;		Y	√ N	
QXE	109.0	121.0	12.0		Green and brown	n mixes sand	stone		✓ Y	N	
4.]	121.0	125.0	4.0	7	ellow,brown and	gray silty sa	ndstone		√ Y	N	
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	22.11.								Y	N	
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									Y	N	
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	William B.										
	BY SIGNIN	IG BELOW	, I CERTIFY TH	IAT TO THE BEST WELL. I ALSO CER	OF MY KNOWI	EDGE ANI	BELIEF, THE FOR	EGOIN	NG IS A	TRUE A	ND CORRECT
2	WELL REG	OKD WILL	ALSO BE FILED	WITH THE PERMIT	HOLDER WITH	IN 30 DAYS	AFTER THE COMP	LETION	OF WE	LL DRILI	LING.
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6. SIGNATURE		h	_						05/1	1/2020	
9		ŞIGNAT	URE OF DRILLI	ER / PRINT SIGNEI	E NAME			,,,,,,		DATE	
		/	-								
	R OSE INTER E NO.	NAL USE	4-10-	721	POD NO.		TRN NO.	LL REC	CORD &	LOG (Ve	rsion 04/30/2019)
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	C1111011						WELL TAG ID NO.				1



APPENDIX B

Lithologic Soil Sampling Logs

	7							Sample Name: SS01	Date: 03/21/2023
T		E	N	S	O I	_ U	M	Site Name: MCA 400 Incident Number: NAPP2530545	E0E0
			_						טטטט
		LITUO	001	. /	A NAIDL INIA	106		Job Number: 03D2057073	Makhada Harad Arrass
Coord				_	SAMPLING	LUG		Logged By:P.VanPatten Hole Diameter: 4"	Method: Hand Auger Total Depth: 1'
		2.805208			i+h UACU Ch	Jarida Tast 9	tring and	PID for chloride and vapor, respec	· ·
II			_					actors included.	ctively. Chiloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions
-	-	-	-	-	 -	↓ -	-		
						_		SAND: fine grained to med	ium grained, trace
Dry	6,725	1	N	SS01A	1 -	- 1	SP-SM	amounts small gravel, poo	rly graded, tan to light
					_	_		brown, no odor, non plast	ic, non cohesive.
					_	_		TD reached @ 1' bgs	
					_	[-			
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								Sample Name: SS02	Date: 03/21/2023
1								Site Name: MCA 400	Date: 03/21/2023
			N	5	OL	_ U	V	Incident Number: NAPP253054	455050
B.								Job Number: 03D2057073	
		LITHOL	OGI	C / SOIL S	SAMPLING	LOG		Logged By:P.VanPatten	Method: Hand Auger
Coord		2.805166						Hole Diameter: 4"	Total Depth: 1'
			_				•	PID for chloride and vapor, resp factors included.	pectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic I	Descriptions
-	-	-	1	1	 	I -	-		
						_		SAND: fine grained to me	edium grained, trace
Dry	5,728	1.6	N	SS01A	1 -	- 1	SP-SM	amounts small gravel, po	=
								brown, no odor, non pla	
					_	_		TD reached @ 1' bgs	
					_	- -			
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						-			
					-	-			

								Sample Name: SS03	Date: 03/21/2023
								Site Name: MCA 400	Date: 05/21/2025
			N	3	OL	_ U	V	Incident Number: NAPP25305	455050
P.								Job Number: 03D2057073	
		LITHOL	OGI	C / SOIL S	SAMPLING	LOG		Logged By:P.VanPatten	Method: Hand Auger
Coord	inates: 32							Hole Diameter: 4"	Total Depth: 1'
			-				•	PID for chloride and vapor, res factors included.	pectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic	Descriptions
-	-	-	1	-		I 	-		
						_		SAND: fine grained to me	edium grained, trace
Dry	2,279	1.3	N	SS03A	1 -	- 1	SP-SM	amounts small gravel, po	oorly graded, tan to light
						_		brown, no odor, non pla TD reached @ 1' bgs	astic, non cohesive.

								Sample Name: SS04	Date: 03/21/2023
	7							Site Name: MCA 400	Dute: 03/21/2023
			N	5	OL	_ U	V	Incident Number: NAPP25305455	050
2								Job Number: 03D2057073	
		LITHOL	OGI	c / soil s	SAMPLING	LOG		Logged By:P.VanPatten	Method: Hand Auger
Coordi		2.80188,						Hole Diameter: 4"	Total Depth: 1'
Comm	ents: Fie	ld screen	ing co	nducted w				PID for chloride and vapor, respectactors included.	· ·
Moisture Content	Chloride (ppm)	 					USCS/Rock Symbol	Lithologic De:	·
Dry	1,993	0.9	N	SS04	0.5 - -	L - 0.5 -		SAND: fine grained to medi amounts small gravel, poor brown, no odor, non plasti	ly graded, tan to light
Dry	2,279	1.3	N	SS04A	1 -	1	SP-SM	SAA TD reached @ 1' bgs	

								Sample Name: SS05	Date: 03/21/2023
7								Site Name: MCA 400	Date. 03/21/2023
			N	5	OL	U	M	Incident Number: NAPP253054	55050
A			_	_	_			Job Number: 03D2057073	
		LITHOL	OGI	r / sou s	SAMPLING	LOG		Logged By:P.VanPatten	Method: Hand Auger
Coord	inates: 32				AIVIF LING	100		Hole Diameter: 4"	Total Depth: 1'
					ith HACH Ch	loride Test 9	Strins and	PID for chloride and vapor, resp	
			_					actors included.	convery. Chilomae test
Moisture Content	Chloride (ppm)	Chloride (ppm) (pp					USCS/Rock Symbol	Lithologic [Descriptions
-	-	-	-	-	<u>.</u> 	L -	-		
						_		SAND: fine grained to me	dium grained, trace
Dry	3,438	3.6	Ν	SS05A	1 -	- 1	SP-SM	amounts small gravel, po	orly graded, tan to light
						_		brown, no odor, non plas	stic, non cohesive.
					-	_		TD reached @ 1' bgs	
						<u>-</u>			
					-	-			
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								Sample Name: CCOC	Date: 03/21/2023
								Sample Name: SS06 Site Name: MCA 400	Date. 03/21/2023
			N	5	OL	U	M	Incident Number: NAPP253054	155050
								Job Number: 03D2057073	
₽		IITHOI	OG!	r / sou s	SAMPLING	106			Mothod: Hand Augus
Coord	inates: 32				AIVIPLING	LOG		Logged By:P.VanPatten Hole Diameter: 4"	Method: Hand Auger Total Depth: 1'
					ii+h UACU Ch	larida Tast (tring and	PID for chloride and vapor, resp	· ·
			_					actors included.	ectively. Chloride test
Moisture Content	Chloride (ppm)	Chloride (ppm) (ppm) (ppm) (ppm) Samble Debth (tt pgs) USCS/Rock Chloride Debth (tt pgs) Location and the ID of the ID					USCS/Rock Symbol	Lithologic [Descriptions
-	-	-	1	-		I -	-		
						_		SAND: fine grained to me	dium grained, trace
Dry	375	2.1	Ν	SS06A	1 -	- 1	SP-SM	amounts small gravel, po	orly graded, tan to light
						_		brown, no odor, non plas	stic, non cohesive.
						<u> </u>		TD reached @ 1' bgs	
					-	_			
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								Sample Name: SS07	Date: 03/21/2023
									· · ·
			V	3	OL	_ U	IAI	Incident Number: NAPP253054	155050
								Job Number: 03D2057073	
		LITHOL	OGI	C / SOIL S	SAMPLING	LOG		Logged By:P.VanPatten	Method: Hand Auger
Coord	inates: 32	2.805183	, -103	.760561				Hole Diameter: 4"	Total Depth: 1'
			_					PID for chloride and vapor, resp factors included.	pectively. Chloride test
Moisture Content	Chloride (ppm)	Chloride Chl					USCS/Rock Symbol	Lithologic I	Descriptions
-	-	-	1	-	 	I -	-		
Dry	<173	2.3	N	SS07A	1 -	1	SP-SM	SAND: fine grained to me amounts small gravel, po brown, no odor, non pla TD reached @ 1' bgs	orly graded, tan to light

						<u> </u>
					Sample Name: SS08	Date: 03/21/2023
N	S			M	Site Name: MCA 400	
					Incident Number: NAPP2530545	5050
					Job Number: 03D2057073	
LOGI	C / SOIL !	SAMPLING	LOG		Logged By:P.VanPatten	Method: Hand Auger
1, -10	3.760691				Hole Diameter: 4"	Total Depth: 1'
						ctively. Chloride test
Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions
T -	-			-		
N	SS08A	1 -	1	SP-SM		rly graded, tan to light
					TD reached @ 1' bgs	
9 e il	OLOGI 91, -103 ening co illution f	OLOGIC / SOIL S 91, -103.760691 ening conducted w ilution factor of soil Stationary Stationary Building S	PLOGIC / SOIL SAMPLING 91, -103.760691 ening conducted with HACH Chilution factor of soil to distilled Guing Burning Sample Depth (ft bgs)	PLOGIC / SOIL SAMPLING LOG 91, -103.760691 ening conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water. No conducted with HACH Chloride Test silution factor of soil to distilled water.	ening conducted with HACH Chloride Test Strips and illution factor of soil to distilled water. No correction of Sample Depth (ft bgs) Popth (ft bgs) Popth (ft bgs) Popth (ft bgs) Popth Popth (ft bgs) Popth Popth (ft bgs) Popth (ft bgs) Popth Popth Popth (ft bgs) Popth Popth Popth (ft bgs) Popth Popt	Site Name: MCA 400 Incident Number: NAPP2530545: Job Number: 03D2057073 DLOGIC / SOIL SAMPLING LOG 91, -103.760691 ening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectitution factor of soil to distilled water. No correction factors included. Sample Depth (ft bgs) Depth (ft bgs) Sample Sample

							Sample Name: SS09	Date: 03/21/2023
								·
		V	3	OL	_ U	IAI	Incident Number: NAPP25305	5455050
							Job Number: 03D2057073	
	LITHOL	.OGI	C / SOIL S	SAMPLING	LOG		Logged By:P.VanPatten	Method: Hand Auger
Coordinates	: 32.804791	, -103	.760691				Hole Diameter: 4"	Total Depth: 1'
							PID for chloride and vapor, res factors included.	spectively. Chloride test
Moisture Content Chloride	Chloride Chloride Chloride Chloride Chloride (ppm) Chloride Chlori					USCS/Rock Symbol	Lithologic	Descriptions
	-	1	-		I 	-		
Dry <17	3 1.7	N	SS09A	1 -	- 1	SP-SM		oorly graded, tan to light
				_	_		brown, no odor, non plant brown, no odor, no odor	astic, non cohesive.

								Sample Name: SS10	Date: 05/17/2023	
								Site Name: MCA 400		
			N	5	OL	_ U	V	Incident Number: NAPP253054550	050	
								Job Number: 03D2057073		
		LITHOI	OGI	C / SOIL S	SAMPLING	LOG		Logged By: J.Falcomata	Method: Hand Auger	
Coord	inates: 32				, <u> </u>		Hole Diameter: 4"	Total Depth: 1'		
Comm	nents: Fie	ld screen	ing co	nducted w		PID for chloride and vapor, respecti				
perfor	med with	n 1:4 dilu	tion f	actor of soi	l to distilled	water. No co	orrection 1	factors included.		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
Dry	<168	0.3	N	SS10	0.5 - -	L 0.5	SP-SM	SAND: fine grained, poorly graded, tan - mediun brown, no odor, non plastic, non cohesive.		
Dry	<168	0.1	Z	SS10A	1 -	- - 1	SP-SM	SAND: fine grained, poorly graded, medium brown, no odor, non plastic, non cohesive.		
					_	_		TD reached @ 1' bgs		
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							Sample Name: SS11	Date: 05/17/2023	
							Site Name: MCA 400		
		N	3	OL	_ U	V	Incident Number: NAPP25305455	050	
							Job Number: 03D2057073		
	LITHOL	OGI	c / soil s	SAMPLING	LOG		Logged By: J.Falcomata	Method: Hand Auger	
Coordinates: 3					Hole Diameter: 4"	Total Depth: 1'			
Comments: Fie	ld screen	ing co	nducted w			•	PID for chloride and vapor, respec		
Moisture Content Chloride (ppm)							Lithologic De		
Dry 184	0.1	N	SS11	0.5 - -	L _ 0.5	SP-SM	SAND: fine grained, silty, poorly graded, light brown to medium brown, no odor, non plastic, non cohesive.		
Dry <168	0.7	N	SS11A	1 -	- - 1	SP-SM	SAND: fine grained, silty, pobrown, no odor, non plastic TD reached @ 1' bgs	· -	

								Sample Name: SS12	Date: 05/17/2023	
	7							Site Name: MCA 400	Date: 03/11/2023	
			N	5	OL	_ U	M	Incident Number: NAPP253054	455050	
ř.				_				Job Number: 03D2057073		
		LITHOI	OGI	C / SOIL S	SAMPLING	LOG		Logged By: J.Falcomata	Method: Hand Auger	
Coordi		2.805043			, Liive	Hole Diameter: 4"	Total Depth: 1'			
					ith HACH Ch	PID for chloride and vapor, res	· ·			
								factors included.	•	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	-	Descriptions	
Dry	<168	0.1	N	SS12	0.5 -	L _ 0.5	SP-SM	SAND: fine grained to medium grained, trace amounts small gravel, poorly graded, tan to ligh brown, no odor, non plastic, non cohesive.		
Dry	<168	0.4	N	SS12A	1 -	- 1	SP-SM	SAND: fine grained, sligh light brown, no odor, no TD reached @ 1' bgs		

								Sample Name: SS13	Date: 05/17/2023	
								Site Name: MCA 400	Date: 03/11/2023	
			N	5	OL	J	V	Incident Number: NAPP253054	55050	
B.								Job Number: 03D2057073		
	11	ITHOL	OGIO	C / SOIL S	SAMPLING	LOG		Logged By: J.Falcomata	Method: Hand Auger	
Coordinates: 32.805106, -103.760822								Hole Diameter: 4"	Total Depth: 1'	
Comment	ts: Field	screeni	ng co	nducted w				PID for chloride and vapor, resp	·	
performe	d with 1	1:4 dilut	ion fa	actor of soi	l to distilled	water. No co	orrection f	factors included.		
Moisture Content Chloride	(mdd)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	-	Descriptions	
Dry 7	772	0.4	N	SS13	0.5 - -	L - 0.5 -	SP-SM	SAND: fine grained to medium grained, trace amounts small gravel, poorly graded, tan to ligh brown, no odor, non plastic, non cohesive.		
Dry <	168	0.1	N	SS13A	1 -	- 1	SP-SM	SAND: fine grained, slight light brown, no odor, non		

								Sample Name: SS14	Date: 05/17/2023	
Y	7							Site Name: MCA 400	2 3 2 7 2 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
			N	3	OL	LU	V	Incident Number: NAPP2530545	5050	
								Job Number: 03D2057073		
		LITHOL	OGI	C / SOIL S	SAMPLING	LOG		Logged By: J.Falcomata	Method: Hand Auger	
Coord	inates: 32							Hole Diameter: 4"	Total Depth: 1'	
Comn	nents: Fie	ld screen	ing co	nducted w				PID for chloride and vapor, respe factors included.	ctively. Chloride test	
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	·	
Dry	<168	0.2	N	SS14	0.5 -	L - 0.5		SAND: fine grained to med amounts small gravel, poo	rly graded, tan to light	
Dry	<168	0.1	N	SS14A	1 -	- - 1		brown, no odor, non plast SAND: fine grained, slightly light brown to medium, no cohesive.		

							Sample Name: SS15	Date: 05/17/2023	
						B .4	Site Name: MCA 400	Date: 03/11/2023	
		N	5	OL	LU	V	Incident Number: NAPP253054	55050	
							Job Number: 03D2057073		
	LITHO	OGI	C / SOIL S	SAMPLING	LOG		Logged By: J.Falcomata	Method: Hand Auger	
Coordinates: 3				, Liive	Hole Diameter: 4"	Total Depth: 1'			
				rith HACH Ch	PID for chloride and vapor, resp	· ·			
		_					factors included.		
Moisture Content Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	-	Descriptions	
Dry 1124	0.1	N	SS15	0.5 -	L - 0.5		SAND: fine grained to me amounts small gravel, po	orly graded, tan to light	
							brown, no odor, non plas SAND: fine grained, slight	ly silty, noorly graded	
Dry 420	0	N	SS15A	1 -	- 1				
777 420		'*	3313K		-	31 3101	trace amounts small gravel, light brown, no conon plastic, non cohesive.		
							TD reached @ 1' bgs		



APPENDIX C

Photographic Log



Photographic Log Maverick Permian, LLC MCA 400 Incident Number NAPP2305455050





Photograph 1
Description: Release point

Date: 02/13/2023

Photograph 2 Date:02/16/2023 Description: Release area after initial response scraping



Photograph 3 Description: Release area



Photograph 4 Date: 05/17/2023
Description: Release area during delineation activities



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

JOB DESCRIPTION

Generated 2/23/2023 11:53:17 AM

MCA 400 SDG NUMBER 03D2057073

JOB NUMBER

890-4117-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Authorization

Generated 2/23/2023 11:53:17 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Page 2 of 20

2/23

6

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12

13

14

Client: Ensolum
Project/Site: MCA 400
Laboratory Job ID: 890-4117-1
SDG: 03D2057073

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Definitions/Glossary

Job ID: 890-4117-1 Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE) DL

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

DLC Decision Level Concentration (Radiochemistry)

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) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

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

NFG Negative / Absent POS Positive / Present PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum Job ID: 890-4117-1 Project/Site: MCA 400 SDG: 03D2057073

Job ID: 890-4117-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4117-1

Receipt

The sample was received on 2/16/2023 3:24 PM. 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 4.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS09 (890-4117-1).

GC VOA

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

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46823 and analytical batch 880-46829 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

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

Job ID: 890-4117-1 SDG: 03D2057073

Project/Site: MCA 400 **Client Sample ID: SS09**

Lab Sample ID: 890-4117-1

Date Collected: 02/16/23 11:30 Date Received: 02/16/23 15:24 Sample Depth: 0.5'

Client: Ensolum

Chloride

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:33	02/23/23 07:23	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:33	02/23/23 07:23	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:33	02/23/23 07:23	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/22/23 09:33	02/23/23 07:23	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:33	02/23/23 07:23	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/22/23 09:33	02/23/23 07:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			02/22/23 09:33	02/23/23 07:23	1
1,4-Difluorobenzene (Surr)	110		70 - 130			02/22/23 09:33	02/23/23 07:23	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/23/23 12:22	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (Qualifier	GC)	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier		Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/22/23 16:01	
Analyte		Qualifier U	RL 49.9		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	Result <49.9 sel Range Organia	Qualifier U	RL 49.9		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics	Result <49.9 sel Range Organia	Qualifier U unics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg	_ =	<u> </u>	02/22/23 16:01	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte	Result <49.9 sel Range Orga Result	Qualifier U unics (DRO) Qualifier U	RL 49.9 (GC)	mg/Kg	_ =	Prepared	02/22/23 16:01 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9	Qualifier U unics (DRO) Qualifier U U*1	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/21/23 12:10 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:27 02/21/23 18:27	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 Result <49.9 Result <49.9	Qualifier U unics (DRO) Qualifier U U*1	(GC) RL 49.9	mg/Kg Unit mg/Kg	_ =	Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:27	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9	Qualifier U unics (DRO) Qualifier U U*1	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/21/23 12:10 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:27 02/21/23 18:27	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.9 See Range Orga Result <49.9 <49.9 <49.9	Qualifier U unics (DRO) Qualifier U U*1	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:27 02/21/23 18:27 02/21/23 18:27	Dil Face 1 1 1 Dil Face
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 <49.9	Qualifier U unics (DRO) Qualifier U U*1	RL 49.9 (GC) RL 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared	02/22/23 16:01 Analyzed 02/21/23 18:27 02/21/23 18:27 02/21/23 18:27 Analyzed	
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 <49.9	Qualifier U Inics (DRO) Qualifier U U*1 U Qualifier	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:27 02/21/23 18:27 02/21/23 18:27 Analyzed 02/21/23 18:27	Dil Fac

4.99

mg/Kg

02/21/23 16:43

14.0

Surrogate Summary

 Client: Ensolum
 Job ID: 890-4117-1

 Project/Site: MCA 400
 SDG: 03D2057073

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)	
880-24905-A-79-D MS	Matrix Spike	111	112	
880-24905-A-79-E MSD	Matrix Spike Duplicate	119	113	
890-4117-1	SS09	121	110	
LCS 880-46933/1-A	Lab Control Sample	110	113	
LCSD 880-46933/2-A	Lab Control Sample Dup	109	113	
MB 880-46926/8	Method Blank	105	105	
MB 880-46933/5-A	Method Blank	105	104	

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)	
880-24982-A-1-B MS	Matrix Spike	117	106	
880-24982-A-1-C MSD	Matrix Spike Duplicate	120	109	
890-4117-1	SS09	103	97	
LCS 880-46823/2-A	Lab Control Sample	127	129	
LCSD 880-46823/3-A	Lab Control Sample Dup	114	108	
MB 880-46823/1-A	Method Blank	104	108	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-4117-1 Project/Site: MCA 400 SDG: 03D2057073

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46926/8

Matrix: Solid

Analysis Batch: 46926

Chefft Sample ID. Wethou Blank
Prep Type: Total/NA

MB MB Dil Fac Analyte Result Qualifier RL Unit Prepared Analyzed Benzene <0.00200 U 0.00200 mg/Kg 02/22/23 13:39 Toluene <0.00200 U 0.00200 mg/Kg 02/22/23 13:39 Ethylbenzene <0.00200 U 0.00200 02/22/23 13:39 mg/Kg <0.00400 U 0.00400 m-Xylene & p-Xylene mg/Kg 02/22/23 13:39 o-Xylene <0.00200 U 0.00200 mg/Kg 02/22/23 13:39 Xylenes, Total <0.00400 U 0.00400 02/22/23 13:39 mg/Kg

MB MB

MR MR

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105	70 - 130		02/22/23 13:39	1
1,4-Difluorobenzene (Surr)	105	70 - 130		02/22/23 13:39	1

Lab Sample ID: MB 880-46933/5-A

Matrix: Solid

Analysis Batch: 46926

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46933

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:33	02/23/23 01:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:33	02/23/23 01:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:33	02/23/23 01:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/22/23 09:33	02/23/23 01:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:33	02/23/23 01:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/22/23 09:33	02/23/23 01:41	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	02/22/23 09:33	02/23/23 01:41	1
1,4-Difluorobenzene (Surr)	104		70 - 130	02/22/23 09:33	02/23/23 01:41	1

Lab Sample ID: LCS 880-46933/1-A

Matrix: Solid

Analysis Batch: 46926

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 46933

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1029		mg/Kg		103	70 - 130	
Toluene	0.100	0.09799		mg/Kg		98	70 - 130	
Ethylbenzene	0.100	0.1052		mg/Kg		105	70 - 130	
m-Xylene & p-Xylene	0.200	0.2284		mg/Kg		114	70 - 130	
o-Xylene	0.100	0.1113		mg/Kg		111	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	110	70 _ 130
1.4-Difluorobenzene (Surr)	113	70 - 130

Lab Sample ID: LCSD 880-46933/2-A

Matrix: Solid

Analysis Batch: 46926

Client Sample I	D: Lab	Control	Sample	Dup
		Prep Ty	/pe: Total	/NA

Prep Batch: 46933

Spike LCSD LCSD RPD %Rec Result Qualifier Limit Analyte Added Unit %Rec Limits **RPD** Benzene 0.100 0.1044 mg/Kg 104 70 - 130

QC Sample Results

 Client: Ensolum
 Job ID: 890-4117-1

 Project/Site: MCA 400
 SDG: 03D2057073

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

Lab Sample ID: LCSD 880-46933/2-A

Matrix: Solid

Analysis Batch: 46926

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46933

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.1007		mg/Kg		101	70 - 130	3	35
Ethylbenzene	0.100	0.1051		mg/Kg		105	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2261		mg/Kg		113	70 - 130	1	35
o-Xylene	0.100	0.1105		mg/Kg		110	70 - 130	1	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 880-24905-A-79-D MS

Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 46926 Prep Batch: 46933

le Sample	Spike	MS	MS				%Rec	
ılt Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
00 U	0.101	0.1098		mg/Kg		109	70 - 130	
00 U	0.101	0.1066		mg/Kg		106	70 - 130	
00 U	0.101	0.1125		mg/Kg		111	70 - 130	
)1 U	0.202	0.2429		mg/Kg		120	70 - 130	
00 U	0.101	0.1187		mg/Kg		117	70 - 130	
	ble Sample ult Qualifier 00 U 00 U 01 U 02 U 03 U 04 U 05 U	ult Qualifier Added 00 U 0.101 00 U 0.101 00 U 0.101 01 U 0.202	ult Qualifier Added Result 00 U 0.101 0.1098 00 U 0.101 0.1066 00 U 0.101 0.1125 01 U 0.202 0.2429	ult Qualifier Added Result Qualifier 00 U 0.101 0.1098 00 U 0.101 0.1066 00 U 0.101 0.1125 01 U 0.202 0.2429	ult Qualifier Added Result Qualifier Unit 00 U 0.101 0.1098 mg/Kg 00 U 0.101 0.1066 mg/Kg 00 U 0.101 0.1125 mg/Kg 01 U 0.202 0.2429 mg/Kg	ult Qualifier Added Result Qualifier Unit D 00 U 0.101 0.1098 mg/Kg 00 U 0.101 0.1066 mg/Kg 00 U 0.101 0.1125 mg/Kg 01 U 0.202 0.2429 mg/Kg	ult Qualifier Added Result Qualifier Unit D %Rec 00 U 0.101 0.1098 mg/Kg 109 00 U 0.101 0.1066 mg/Kg 106 00 U 0.101 0.1125 mg/Kg 111 01 U 0.202 0.2429 mg/Kg 120	ult Qualifier Added Result Qualifier Unit D %Rec Limits 00 U 0.101 0.1098 mg/Kg 109 70 - 130 00 U 0.101 0.1066 mg/Kg 106 70 - 130 00 U 0.101 0.1125 mg/Kg 111 70 - 130 01 U 0.202 0.2429 mg/Kg 120 70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 880-24905-A-79-E MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 46926 Prep Batch: 46933

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0994	0.1097		mg/Kg		110	70 - 130	0	35
Toluene	<0.00200	U	0.0994	0.1076		mg/Kg		108	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0994	0.1143		mg/Kg		115	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2473		mg/Kg		124	70 - 130	2	35
o-Xylene	<0.00200	U	0.0994	0.1213		mg/Kg		122	70 - 130	2	35

	MOD	MOD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

MSD MSD

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

Lab Sample ID: MB 880-46823/1-A

Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 46829

MB MB

Prep Batch: 46823

 Analyte
 Result
 Qualifier
 RL
 Unit
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 Prepared
 Analyzed
 Dil Fac

 Gasoline Range Organics
 <50.0</td>
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 mg/Kg
 02/21/23 08:38
 02/21/23 08:17
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 (GRO)-C6-C10
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o-Terphenyl

Client: Ensolum Job ID: 890-4117-1 Project/Site: MCA 400 SDG: 03D2057073

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

Lab Sample ID: MB 880-46823/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Total/NA** Analysis Batch: 46829 Prep Batch: 46823 мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			02/21/23 08:38	02/21/23 08:17	1
o-Terphenyl	108		70 - 130			02/21/23 08:38	02/21/23 08:17	1

- ' ' '										
Lab Sample ID: LCS 880-46	823/2-A						Client	Sample	ID: Lab Cont	rol Sample
Matrix: Solid									Prep Typ	e: Total/NA
Analysis Batch: 46829									Prep Ba	atch: 46823
-			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			1000	1049		mg/Kg		105	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over			1000	1212		mg/Kg		121	70 - 130	
C10-C28)										
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	127		70 - 130							
o-Terphenyl	129		70 - 130							

Lab Sample ID: LCSD 880-46823/3-A			Client Sample ID: Lab Control Sample Dup
Matrix: Solid			Prep Type: Total/NA
Analysis Batch: 46829			Prep Batch: 46823
	Spike	LCSD LCSD	%Rec RPD

	Spike	LCSD	LUGD				/onec		KFD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	857.5		mg/Kg		86	70 - 130	20	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	955.2	*1	mg/Kg		96	70 - 130	24	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	108		70 - 130

_										
Lab Sample ID: 880-24982-A-	1-B MS							Client	Sample ID:	Matrix Spike
Matrix: Solid									Prep T	ype: Total/NA
Analysis Batch: 46829									Prep	Batch: 46823
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1193		mg/Kg		117	70 - 130	
l										

<49.9 U *1	997	1034	mg/Kg	102	70 - 130	
MS MS						
ecovery Qualifier	Limits					
117	70 - 130					
106	70 - 130					
	MS MS ecovery Qualifier	MS MS ecovery Qualifier Limits 70 - 130	MS MS ecovery Qualifier Limits 70 - 130	MS MS ecovery Qualifier Limits 70 - 130	MS MS ecovery Qualifier Limits 70 - 130	MS MS ecovery Qualifier Limits 70 - 130

Lab Sample ID: 880-24982-A-1-C MSD

Client: Ensolum Project/Site: MCA 400

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

Job ID: 890-4117-1 SDG: 03D2057073

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46823

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	987.5		mg/Kg		97	70 - 130	19	20
Diesel Range Organics (Over	<49.9	U *1	998	1068		mg/Kg		105	70 - 130	3	20

C10-C28)

Matrix: Solid

Matrix: Solid

Analysis Batch: 46829

MSD MSD

Surrogate	%Recovery Qual	ifier Limits
1-Chlorooctane	120	70 - 130
o-Terphenyl	109	70 - 130

Client Sample ID: Method Blank

Prep Type: Soluble

мв мв

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46828/1-A

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 02/21/23 15:17

Lab Sample ID: LCS 880-46828/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 46871

Analysis Batch: 46871

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 	250	236.5	-	mg/Kg		95	90 - 110	

Lab Sample ID: LCSD 880-46828/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 46871

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	243.9		mg/Kg	_	98	90 - 110	3	20	

Lab Sample ID: 890-4116-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	132		251	370.5		ma/Ka		95	90 110		_

Lab Sample ID: 890-4116-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	132		251	371.3		mg/Kg		95	90 - 110	0	20	

QC Association Summary

 Client: Ensolum
 Job ID: 890-4117-1

 Project/Site: MCA 400
 SDG: 03D2057073

GC VOA

Analysis Batch: 46926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4117-1	SS09	Total/NA	Solid	8021B	46933
MB 880-46926/8	Method Blank	Total/NA	Solid	8021B	
MB 880-46933/5-A	Method Blank	Total/NA	Solid	8021B	46933
LCS 880-46933/1-A	Lab Control Sample	Total/NA	Solid	8021B	46933
LCSD 880-46933/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46933
880-24905-A-79-D MS	Matrix Spike	Total/NA	Solid	8021B	46933
880-24905-A-79-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46933

Prep Batch: 46933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4117-1	SS09	Total/NA	Solid	5035	_
MB 880-46933/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46933/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46933/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24905-A-79-D MS	Matrix Spike	Total/NA	Solid	5035	
880-24905-A-79-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 47053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4117-1	SS09	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46823

Lab Sample ID 890-4117-1	Client Sample ID SS09	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24982-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24982-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4117-1	SS09	Total/NA	Solid	8015B NM	46823
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015B NM	46823
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46823
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46823
880-24982-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	46823
880-24982-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46823

Analysis Batch: 46963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4117-1	SS09	Total/NA	Solid	8015 NM	_

HPLC/IC

Leach Batch: 46828

Γ				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
890-4117-1	SS09	Soluble	Solid	DI Leach
MB 880-46828/1-A	Method Blank	Soluble	Solid	DI Leach
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	DI Leach

Eurofins Carlsbad

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QC Association Summary

 Client: Ensolum
 Job ID: 890-4117-1

 Project/Site: MCA 400
 SDG: 03D2057073

HPLC/IC (Continued)

Leach Batch: 46828 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4116-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4116-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4117-1	SS09	Soluble	Solid	300.0	46828
MB 880-46828/1-A	Method Blank	Soluble	Solid	300.0	46828
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	300.0	46828
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46828
890-4116-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	46828
890-4116-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46828

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Date Received: 02/16/23 15:24

Lab Chronicle

Client: Ensolum Job ID: 890-4117-1 Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS09

Lab Sample ID: 890-4117-1 Date Collected: 02/16/23 11:30 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	46933	02/22/23 09:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46926	02/23/23 07:23	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			47053	02/23/23 12:22	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46963	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46823	02/21/23 12:10	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 18:27	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1			46871	02/21/23 16:43	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: 890-4117-1

 Project/Site: MCA 400
 SDG: 03D2057073

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date
		ELAP	T104704400-22-25	
The following analytes	are included in this report by		and the state of the second control of the s	
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for
,	• '	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

Job ID: 890-4117-1 Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: MCA 400 Job ID: 890-4117-1

SDG: 03D2057073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4117-1	SS09	Solid	02/16/23 11:30	02/16/23 15:24	0.5'

Received by OCD: 7/13/2023 8:47:56 PM

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Environment Testing Xenco

Chain of Custody

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

Work Order No:	
WOLK OLDER ING.	

																			VVVV.	xenco	COIII	Page _		of
Project Manager:	Josh	Adams				Bill to: (if	different)	Kalei	Jennir	ngs								Wo	ork Or	der Co	mments		
Company Name:	Enso	lum, LLC				Company Name: Ensolum, LLC Program: UST/PST PRP Brownfields RRC					RC 🗌 Si	perfund [
Address:	601	V Marienfe	eld St S	uite 400		Address																		
City, State ZIP:	Midla	and, TX 79	9701			City, Sta	Descripting Level II Claud III C DET/IST C TPPD Level						Level IV											
Phone:					jadams	@ensc	lum.c	om, k	ennir	igs@e	nsolu	m.com			Deliv	erables	EDD		A	DaPT	□ Ot	ner:		
Project Name:		M	CA 400		Tuer	Around							AP	JAI YS	IS RE	QUEST						Prese	rvative (Codes
Project Number:	-		205707		Routine	Rus		Pres.						T	1						N	lone: NO		Vater: H₂C
	1				Due Date:		Code							-		1						Cool: Cool	Med	OH: Me
Project Location: Sampler's Name:	+		County, y Nikan		TAT starts th	e day rece	ived by												- 1	ICL: HC	HN	O ₃ : HN		
PO#:			, i viii carii		the lab, if red			so.										H	1 ₂ S0 ₄ : H ₂	Nac	DH: Na			
SAMPLE RECE	IPT	Temp E	Blank:	(Yes) No	Wet Ice:	Kes	No	neters	6											H	I₃PO₄: HP			
Samples Received I	Intact:	Yes	No	Thermomete	r ID:	TAM		E I	300.0								NaHSO ₄ : NABIS							
Cooler Custody Sea	ils:	Yes No	M/A	Correction Fa	actor:	-D	. 2	ů.	PA:			T TOUR AND THE TRUE THE PROPERTY OF THE PROPER				Na ₂ S ₂ O ₃ : NaSO ₃								
Sample Custody Se	als:	Yes No	N/A	Temperature	Reading:	4	. 9		S (E				890-	4117 C	hain of	n of Custody		-		Zn Acetate+NaOH: Zn				
Total Containers:	Corrected Te		mperature:	e: 4.6		· E)			i ii	(8015)	8021						- 1	NaOH+Ascorbic Acid: SAPC						
Sample Ide	ntificat	ion	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	тРН (8	BTEX (8021											Samp	le Comr	nents
SS	09		s	2/16/2023	11:30	0.5'	Grab	1	×	х	х				_									
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				V																				
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Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be llable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 PN	Dia do Stuf	2.16.23 15	24		
3			4		
5			6		nited Date 08/25/2020 Pey 20

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-4117-1

 SDG Number: 03D2057073

Login Number: 4117 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

Job Number: 890-4117-1 SDG Number: 03D2057073

Login Number: 4117 **List Source: Eurofins Midland** List Number: 2 List Creation: 02/21/23 08:18 AM

Creator: Teel, Brianna

Client: Ensolum

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	

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/23/2023 11:48:32 AM

JOB DESCRIPTION

MCA 400 SDG NUMBER 03D2057073

JOB NUMBER

890-4118-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

Authorization

Generated 2/23/2023 11:48:32 AM

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

Client: Ensolum
Project/Site: MCA 400
Laboratory Job ID: 890-4118-1
SDG: 03D2057073

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Definitions/Glossary

 Client: Ensolum
 Job ID: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

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
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

LOD

These commonly used abbreviations may or may not be present in this report.
Listed under the "D" column to designate that the result is reported on a dry weight basis
Percent Recovery
Contains Free Liquid
Colony Forming Unit
Contains No Free Liquid
Duplicate Error Ratio (normalized absolute difference)
Dilution Factor
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)

LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

Limit of Detection (DoD/DOE)

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 I	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)

RI	Reporting Limit or Requested Limit (Radiochemistry)
114	reporting Entire or requested Entire (readloonernistry)

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: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

Job ID: 890-4118-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4118-1

Receipt

The sample was received on 2/16/2023 3:24 PM. 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 4.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS08 (890-4118-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46929 and analytical batch 880-46928 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46823 and analytical batch 880-46829 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

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

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Matrix: Solid

Lab Sample ID: 890-4118-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

Client Sample ID: SS08

Date Collected: 02/16/23 11:20 Date Received: 02/16/23 15:24

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 07:42	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 07:42	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 07:42	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/22/23 09:16	02/23/23 07:42	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 07:42	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/22/23 09:16	02/23/23 07:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130			02/22/23 09:16	02/23/23 07:42	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/22/23 09:16	02/23/23 07:42	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/23/23 12:18	1
	•	, , ,	•					
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 02/22/23 16:01	
Analyte Total TPH		Qualifier U	49.8		<u>D</u>	Prepared		
Analyte	Result <49.8	Qualifier U	49.8		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result <49.8 sel Range Orga Result	Qualifier U nics (DRO) Qualifier	RL 49.8 (GC)	mg/Kg		<u> </u>	02/22/23 16:01	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: 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 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:49	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: 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	02/22/23 16:01 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10	Result 49.8 sel Range Orga Result <49.8 49.8	Qualifier U nics (DRO) Qualifier U U *1	RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg		Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:49	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.8 sel Range Orga Result <49.8 <49.8	Qualifier U nics (DRO) Qualifier U U*1	RL 49.8 (GC) RL 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:49 02/21/23 18:49 02/21/23 18:49	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U nics (DRO) Qualifier U U*1	RL 49.8 (GC) RL 49.8 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:49 02/21/23 18:49	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U*1	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared	02/22/23 16:01 Analyzed 02/21/23 18:49 02/21/23 18:49 02/21/23 18:49 Analyzed	Dil Fac
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 o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U*1 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 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:49 02/21/23 18:49 Analyzed 02/21/23 18:49	Dil Fac
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	Qualifier U nics (DRO) Qualifier U U*1 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 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 18:49 02/21/23 18:49 Analyzed 02/21/23 18:49	Dil Fac Dil Fac 1 Dil Fac 1 Dil Fac 1 Dil Fac

Surrogate Summary

 Client: Ensolum
 Job ID: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

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)	
890-4118-1	SS08	127	99	
890-4123-A-1-B MS	Matrix Spike	82	85	
890-4123-A-1-C MSD	Matrix Spike Duplicate	100	108	
LCS 880-46929/1-A	Lab Control Sample	92	107	
LCSD 880-46929/2-A	Lab Control Sample Dup	103	110	
MB 880-46868/5-A	Method Blank	82	104	
MB 880-46929/5-A	Method Blank	85	99	

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)	
880-24982-A-1-B MS	Matrix Spike	117	106	
880-24982-A-1-C MSD	Matrix Spike Duplicate	120	109	
890-4118-1	SS08	88	87	
LCS 880-46823/2-A	Lab Control Sample	127	129	
LCSD 880-46823/3-A	Lab Control Sample Dup	114	108	
MB 880-46823/1-A	Method Blank	104	108	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Released to Imaging: 10/4/2023 10:47:40 AM

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Client: Ensolum Job ID: 890-4118-1 Project/Site: MCA 400 SDG: 03D2057073

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46868/5-A

Matrix: Solid Analysis Batch: 46928 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46868

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	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	02/21/23 14:3-	02/22/23 11:49	1
1,4-Difluorobenzene (Surr)	104		70 - 130	02/21/23 14:3	02/22/23 11:49	1

Lab Sample ID: MB 880-46929/5-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 46929 **Analysis Batch: 46928**

MR MR Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 02/22/23 09:16 02/23/23 02:51 Toluene <0.00200 U 0.00200 mg/Kg 02/22/23 09:16 02/23/23 02:51 Ethylbenzene <0.00200 U 0.00200 mg/Kg 02/22/23 09:16 02/23/23 02:51 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 02/22/23 09:16 02/23/23 02:51 o-Xylene <0.00200 U 0.00200 mg/Kg 02/22/23 09:16 02/23/23 02:51 02/22/23 09:16 Xylenes, Total <0.00400 U 0.00400 02/23/23 02:51 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/22/23 09:16	02/23/23 02:51	1
1,4-Difluorobenzene (Surr)	99		70 - 130	02/22/23 09:16	02/23/23 02:51	1

Lab Sample ID: LCS 880-46929/1-A Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Solid Analysis Batch: 46928

o-Xylene

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1023 mg/Kg 102 70 - 130 Toluene 0.100 0.1011 mg/Kg 101 70 - 130 Ethylbenzene 0.100 0.09373 mg/Kg 94 70 - 130 0.200 m-Xylene & p-Xylene 0.1915 mg/Kg 96 70 - 130

0.09836

mg/Kg

0.100

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	92	70 _ 130
1.4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: LCSD 880-46929/2-A

Matrix: Solid

Analysis Batch: 46928			Batch:	46929					
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1102		mg/Kg		110	70 - 130	7	35

Eurofins Carlsbad

Prep Type: Total/NA

Prep Batch: 46929

70 - 130

Client Sample ID: Lab Control Sample Dup

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Page 8 of 20

Prep Batch: 46929

Prep Batch: 46929

Prep Type: Total/NA

Client Sample ID: Matrix Spike Duplicate

QC Sample Results

Client: Ensolum Job ID: 890-4118-1 Project/Site: MCA 400 SDG: 03D2057073

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

Lab Sample ID: LCSD 880-46929/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 46928

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.1089		mg/Kg		109	70 - 130	7	35
Ethylbenzene	0.100	0.1027		mg/Kg		103	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2128		mg/Kg		106	70 - 130	11	35
o-Xylene	0.100	0.1094		mg/Kg		109	70 - 130	11	35

LCSD LCSD %Recovery Qualifier Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 103 1,4-Difluorobenzene (Surr) 110 70 - 130

Lab Sample ID: 890-4123-A-1-B MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 46928

-	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00202	U F2 F1	0.101	0.04951	F1	mg/Kg		49	70 - 130
Toluene	0.00490	F1	0.101	0.07116	F1	mg/Kg		66	70 - 130
Ethylbenzene	0.00362		0.101	0.07403		mg/Kg		70	70 - 130
m-Xylene & p-Xylene	0.00658	F1	0.202	0.1234	F1	mg/Kg		58	70 - 130
o-Xylene	0.00316	F1	0.101	0.06386	F1	mg/Kg		60	70 - 130

MS MS %Recovery Qualifier Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 82 1,4-Difluorobenzene (Surr) 85 70 - 130

Lab Sample ID: 890-4123-A-1-C MSD

Matrix: Solid

Analysis Batch: 46928

Analysis Batch: 46928									Prep	Batch:	46929
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U F2 F1	0.0992	0.09288	F2	mg/Kg		93	70 - 130	61	35
Toluene	0.00490	F1	0.0992	0.09288		mg/Kg		89	70 - 130	26	35
Ethylbenzene	0.00362		0.0992	0.08391		mg/Kg		81	70 - 130	13	35
m-Xylene & p-Xylene	0.00658	F1	0.198	0.1714		mg/Kg		83	70 - 130	33	35
o-Xylene	0.00316	F1	0.0992	0.08869		mg/Kg		86	70 - 130	33	35

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

MSD MSD

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

Matrix: Solid

Analysis Batch, 46020

Lab Sample ID: MB 880-46823/1-A

Analysis Batch: 40029							Prep Batci	1: 40023
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1

(GRO)-C6-C10

Eurofins Carlsbad

Prep Type: Total/NA

Drop Botoby 46022

Client Sample ID: Method Blank

 Client: Ensolum
 Job ID: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

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

MB MB

Lab Sample ID: MB 880-46823/1-A

Matrix: Solid

Analysis Batch: 46829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46823

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			02/21/23 08:38	02/21/23 08:17	1
o-Terphenvl	108		70 - 130			02/21/23 08:38	02/21/23 08:17	1

Lab Sample ID: LCS 880-46823/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 46829 Prep Batch: 46823 LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 1049 105 70 - 130 mg/Kg (GRO)-C6-C10 1000 Diesel Range Organics (Over 1212 121 70 - 130 mg/Kg C10-C28) LCS LCS Qualifier Surrogate %Recovery Limits 1-Chlorooctane 70 - 130 127 o-Terphenyl 129 70 - 130

Lab Sample ID: LCSD 880-46823/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 46829** Prep Batch: 46823 Spike LCSD LCSD %Rec **RPD** Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D Gasoline Range Organics 1000 857.5 mg/Kg 86 70 - 130 20

(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)			1000	955.2 *1	mg/Kg	96	70 - 130
	LCSD	LCSD					
Surrogate	%Recovery	Qualifier	Limits				
1-Chlorooctane	114		70 - 130				

70 - 130

70 - 130

108

106

Lab Sample ID: 880-24982-A-1-B MS

Matrix: Solid

Analysis Batch: 46829

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46823

Analysis Batch: 46829									Prep	Batch: 46823
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1193		mg/Kg		117	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U *1	997	1034		mg/Kg		102	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	117		70 - 130							

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o-Terphenyl

o-Terphenyl

Job ID: 890-4118-1 SDG: 03D2057073

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

Lab Sample ID: 880-24982-A-1-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 46829 Prep Type: Total/NA Prep Batch: 46823

Sample Sample Spike MSD MSD RPD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U 998 987.5 mg/Kg 97 70 - 130 19 20 (GRO)-C6-C10 998 Diesel Range Organics (Over <49.9 U*1 1068 mg/Kg 105 70 - 130 3

C10-C28)

Client: Ensolum

Project/Site: MCA 400

MSD MSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	120	70 _ 130
o-Terphenyl	109	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46828/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 46871

мв мв

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 02/21/23 15:17

Lab Sample ID: LCS 880-46828/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	236.5	-	mg/Kg		95	90 - 110	

Lab Sample ID: LCSD 880-46828/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	243.9		mg/Kg		98	90 - 110	3	20	

Lab Sample ID: 890-4116-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Sample	Sample	Бріке	IVIS	M2				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	132		251	370.5		mg/Kg		95	90 - 110	

Lab Sample ID: 890-4116-A-1-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 46871

-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	132		251	371.3		mg/Kg		95	90 - 110	0	20

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Prep Type: Soluble

Prep Type: Soluble

QC Association Summary

 Client: Ensolum
 Job ID: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

GC VOA

Prep Batch:	46868
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46868/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 46928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Total/NA	Solid	8021B	46929
MB 880-46868/5-A	Method Blank	Total/NA	Solid	8021B	46868
MB 880-46929/5-A	Method Blank	Total/NA	Solid	8021B	46929
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	8021B	46929
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46929
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46929
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46929

Prep Batch: 46929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Total/NA	Solid	5035	_
MB 880-46929/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 47044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Total/NA	Solid	8015NM Prep	
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24982-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24982-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Total/NA	Solid	8015B NM	46823
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015B NM	46823
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46823
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46823
880-24982-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	46823
880-24982-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46823

Analysis Batch: 46964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Total/NA	Solid	8015 NM	

QC Association Summary

 Client: Ensolum
 Job ID: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

HPLC/IC

Leach Batch: 46828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Soluble	Solid	DI Leach	
MB 880-46828/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4116-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4116-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4118-1	SS08	Soluble	Solid	300.0	46828
MB 880-46828/1-A	Method Blank	Soluble	Solid	300.0	46828
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	300.0	46828
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46828
890-4116-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	46828
890-4116-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46828

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Lab Chronicle

Client: Ensolum Job ID: 890-4118-1 Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS08 Lab Sample ID: 890-4118-1 Date Collected: 02/16/23 11:20

Matrix: Solid

Date Received: 02/16/23 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 07:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47044	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46964	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	46823	02/21/23 12:10	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 18:49	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1			46871	02/21/23 16:49	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: 890-4118-1

 Project/Site: MCA 400
 SDG: 03D2057073

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	T104704400-22-25	06-30-23
The following analytes	are included in this report by	it the leberatory is not contiffi	iad butba gavarning authority. This list was	
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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13

Method Summary

Client: Ensolum Job ID: 890-4118-1 SDG: 03D2057073 Project/Site: MCA 400

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

Protocol References:

DI Leach

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Deionized Water Leaching Procedure

Laboratory References:

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

Eurofins Carlsbad

EET MID

ASTM

Sample Summary

Client: Ensolum Project/Site: MCA 400 Job ID: 890-4118-1 SDG: 03D2057073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4118-1	SS08	Solid	02/16/23 11:20	02/16/23 15:24	0.5'

3

4

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8

9

11

12

Received by OCD: 7/13/2023 8:47:56 PM

Environment Testing Xenco

Chain of Custody

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

Work Order No:

Page

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Project Manager:	Josh Adams				Bill to: (if different)			Kalei Jennings					Work Order Comments											
Company Name:	Ensolum, LLC					Company Name:			Ensolum, LLC						Program: UST/PST PRP Brownfields RRC Superfund									
Address:	601 N Marienfeld St Suite 400				Address:				601 N Marienfeld St Suite 400						State of Project:									
City, State ZIP:	te ZIP: Midland, TX 79701					City, State ZIP:			Midland, TX 79701						Reporting: Level II									
Phone:	303-517-8437				Email:	jadams	@enso	lum.c	com, kjennings@ensolum.com					Deliverables: EDD ADaPT Other:										
Project Name:	MCA 400				Turn Around				ANALYSIS R					SIS RE	EQUEST				Preservative Codes					
Project Number:			205707		✓ Routine	Rus	h	Pres. Code										-			Non	e: NO	DI Wa	ter: H ₂ O
Project Location:		Lea C	County,	NM	Due Date:																Coo	l: Cool	MeOh	l: Me
Sampler's Name:		Dmitry Nikanorov			TAT starts the day received by								CORRECT THE TRANSPORT OF THE						HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na		HNO ₃	HN		
PO#:					the lab, if red	ceived by 4:30pm						'			TOTAL CONTROL						: Na			
SAMPLE RECEIPT		Temp Bla		Yes No	Wet Ice:	Yes	No	neters	300.0)										H ₃ P	O ₄ : HP				
Samples Received	Intact: (es)		No	Thermometer	r ID:	TNM-20-		ara d												NaHSO ₄ : NABIS				
Cooler Custody Sea	is: Yes No		NA	Correction Fa	actor:	-9	0.0	a a	CHLORIDES (EPA:				I MINISTER CONTRACTOR CONTRACTOR					Na ₂ S ₂ O ₃ : NaSO ₃						
Sample Custody Se	als:	als: Yes No NHA Temperature Corrected Te		Temperature	Reading:	14	4.2						890-4118 Chain of Custody			19				Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC				
Total Containers:				mperature:	1 4,0		4		015)	8021		1 1 1 1 1				+ $+$ $+$ $+$ $+$			H+Ascor	oic Acid: S	APC			
Sample Ide	ntification Matrix		Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	1 .	CHLOR	TPH (8015)	BTEX (8021										Sample Comments		nts	
SS	08		S	2/16/2023	11:20	0.5'	Grab	1	х	х	х													
																1_			_	_				
													_	_	_	-		\dashv	\dashv	-				
			 				-	_	-	_	-		-+	+	-	+	+	-+	-	-				
				17					-		-		-		_	+	+ -		-	_	_			
			1	N				-+-						++++				+						
		1														=	1		##	-	+			
	1																							
.40	-																							
								11.0				01.0	0 0		F. 6	14- 1	4- 14-	NI: IZ	Co. ^	~ 6:0	No. C	TI Co	II V Zn	

Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed 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 Tl 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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 00	Ansunda Istut	2-16-23 15	34		
3			4		
5			6		oviced Date: 08/25/2020 Rev. 2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-4118-1 SDG Number: 03D2057073

Login Number: 4118 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: 890-4118-1

SDG Number: 03D2057073

Login Number: 4118 **List Source: Eurofins Midland** List Number: 2 List Creation: 02/21/23 08:18 AM

Creator: Teel, Brianna

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	

Eurofins Carlsbad

<6mm (1/4").



April 11, 2023

KALEI JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: MCA 400

Enclosed are the results of analyses for samples received by the laboratory on 04/05/23 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Reported: 04/11/2023

Project Name: MCA 400
Project Number: 03D2057073

Project Location: 32.805161,-103.760712

Sampling Date: 03/31/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 04 0.5' (H231591-01)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.02	101	2.00	1.46	
Toluene*	<0.050	0.050	04/07/2023	ND	2.00	100	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/07/2023	ND	2.04	102	2.00	1.15	
Total Xylenes*	<0.150	0.150	04/07/2023	ND	6.16	103	6.00	0.726	
Total BTEX	<0.300	0.300	04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed Method Blan		BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1650	16.0	04/06/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0	10.0	04/08/2023	ND					
Surrogate: 1-Chlorooctane	87.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	93.3	% 49.1-14	8						

A ... - I. ... - d D. ... 311 /

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Celey D. Keene



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Sampling Date: 03/31/2023

Reported: 04/11/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact Sample Received By: Project Number: 03D2057073 Shalyn Rodriguez

Project Location: 32.805161,-103.760712

Sample ID: SS 04A 1.0' (H231591-02)

BTEX 8021B	mg	'kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.02	101	2.00	1.46	
Toluene*	<0.050	0.050	04/07/2023	ND	2.00	100	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/07/2023	ND	2.04	102	2.00	1.15	
Total Xylenes*	<0.150 0.150		04/07/2023	ND	6.16	103	6.00	0.726	
Total BTEX	<0.300 0.300		04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 % 71.5-13		4						
Chloride, SM4500CI-B	mg,	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	04/06/2023 ND		432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0 10.0		04/08/2023	ND					
Surrogate: 1-Chlorooctane	86.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	93.4	% 49.1-14	8						

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Celey D. Keene



03/31/2023

Soil

Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Reported: 04/11/2023

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Sampling Date:

Sampling Type:

Project Location: 32.805161,-103.760712

Sample ID: SS 07A 1.0' (H231591-03)

BTEX 8021B	mg	/kg	Analyze	ed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/06/2023	ND	2.14	107	2.00	6.73	
Toluene*	<0.050	0.050	04/06/2023	ND	2.17	108	2.00	6.51	
Ethylbenzene*	<0.050	0.050	04/06/2023	ND	2.12	106	2.00	8.03	
Total Xylenes*	<0.150 0.150		04/06/2023	ND	6.63	111	6.00	8.73	
Total BTEX	<0.300 0.300		04/06/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 % 71.5-13-		4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/06/2023 ND		432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0 10.0		04/08/2023	ND					
Surrogate: 1-Chlorooctane	85.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	91.7	% 49.1-14	8						

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Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Sampling Date: 03/31/2023

Reported: 04/11/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: 1H /

Project Location: 32.805161,-103.760712

Sample ID: SS 08A 1.0' (H231591-04)

RTFY 8021R

B1EX 8021B	mg/	кд	Anaiyze	a By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.14	107	2.00	6.73	
Toluene*	<0.050	0.050	04/07/2023 ND		2.17	108	2.00	6.51	
Ethylbenzene*	<0.050	0.050	04/07/2023	ND	2.12	106	2.00	8.03	
Total Xylenes*	<0.150	0.150	04/07/2023	ND	6.63	111	6.00	8.73	
Total BTEX	<0.300 0.300		04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID 103 %		% 71.5-13	4						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/06/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0	10.0	04/08/2023	ND					
Surrogate: 1-Chlorooctane	88.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.2	% 49.1-14	8						

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Celey & Keene



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Sampling Date: 03/31/2023

Reported: 04/11/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Project Location: 32.805161,-103.760712

Sample ID: SS 09A 1.0' (H231591-05)

True Value QC	RPD	Qualifier
2.00	6.73	
2.00	6.51	
2.00	8.03	
6.00	8.73	
True Value QC	RPD	Qualifier
400	0.00	
True Value QC	RPD	Qualifier
200	3.01	
200	7.34	
_	200	200 3.01

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Celey D. Keene



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Sampling Date: 03/31/2023

Reported: 04/11/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: JH/

Project Location: 32.805161,-103.760712

Sample ID: SS 01A 1.0' (H231591-06)

BTEX 8021B

DILX GOZID	ıııg,	, kg	Alldiyzo	.u Dy. 3117					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.14	107	2.00	6.73	
Toluene*	<0.050	0.050	04/07/2023	ND	2.17	108	2.00	6.51	
Ethylbenzene*	<0.050	0.050	04/07/2023	ND	2.12	106	2.00	8.03	
Total Xylenes*	<0.150	0.150	04/07/2023	ND	6.63	111	6.00	8.73	
Total BTEX	<0.300	0.300	04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 % 71.5-13		4						
Chloride, SM4500Cl-B	oride, SM4500Cl-B mg/kg								
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	04/06/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0 10.0		04/08/2023	ND					
Surrogate: 1-Chlorooctane	86.6 % 48.2-134		4						
Surrogate: 1-Chlorooctadecane	93.5	% 49.1-14	8						

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Celey D. Keene



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Sampling Date: 03/31/2023

Reported: 04/11/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: 1H /

Project Location: 32.805161,-103.760712

Sample ID: SS 02A 1.0' (H231591-07)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	a By: JH/					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.14	107	2.00	6.73	
Toluene*	<0.050	0.050	04/07/2023	ND	2.17	108	2.00	6.51	
Ethylbenzene*	<0.050	0.050	04/07/2023	ND	2.12	106	2.00	8.03	
Total Xylenes*	<0.150	0.150	04/07/2023	ND	6.63	111	6.00	8.73	
Total BTEX	<0.300 0.300		04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 % 71.5-13		4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	04/06/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0	10.0	04/08/2023	ND					
Surrogate: 1-Chlorooctane	90.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.4	% 49.1-14	8						

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Celey D. Keene



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Reported: 04/11/2023

Project Name: MCA 400
Project Number: 03D2057073

Project Location: 32.805161,-103.760712

Sampling Date: 03/31/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 03A 1.0' (H231591-08)

BTEX 8021B	mg	/kg	Analyze	ed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.14	107	2.00	6.73	
Toluene*	<0.050	0.050	04/07/2023	ND	2.17	108	2.00	6.51	
Ethylbenzene*	< 0.050	0.050	04/07/2023	ND	2.12	106	2.00	8.03	
Total Xylenes*	<0.150	0.150	04/07/2023	ND	6.63	111	6.00	8.73	
Total BTEX	<0.300	0.300	04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 % 71.5-13		4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	04/06/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0	10.0	04/08/2023	ND					
Surrogate: 1-Chlorooctane	90.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.8	% 49.1-14	8						

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Celey D. Keine



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Sampling Date: 03/31/2023

Reported: 04/11/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: JH/

Project Location: 32.805161,-103.760712

Sample ID: SS 05A 1.0' (H231591-09)

BTEX 8021B

	9,	9	7	7: 5::.,					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.14	107	2.00	6.73	
Toluene*	<0.050	0.050	04/07/2023	ND	2.17	108	2.00	6.51	
Ethylbenzene*	<0.050	0.050	04/07/2023	ND	2.12	106	2.00	8.03	
Total Xylenes*	<0.150	0.150	04/07/2023	ND	6.63	111	6.00	8.73	
Total BTEX	<0.300	0.300	04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 % 71.5-13		4						
Chloride, SM4500CI-B	lloride, SM4500Cl-B mg/kg								
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	04/06/2023	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0	10.0	04/08/2023	ND					
Surrogate: 1-Chlorooctane	78.3 % 48.2-134		4						
Surrogate: 1-Chlorooctadecane	84.5	% 49.1-14	8						

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Celey D. Keene



Analytical Results For:

ENSOLUM, LLC KALEI JENNINGS 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received: 04/05/2023 Sampling Date: 03/31/2023

Reported: 04/11/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: 1H /

Project Location: 32.805161,-103.760712

Sample ID: SS 06A 1.0' (H231591-10)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	a By: JH/					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2023	ND	2.14	107	2.00	6.73	
Toluene*	<0.050	0.050	04/07/2023	ND	2.17	108	2.00	6.51	
Ethylbenzene*	<0.050	0.050	04/07/2023	ND	2.12	106	2.00	8.03	
Total Xylenes*	<0.150	0.150	04/07/2023	ND	6.63	111	6.00	8.73	
Total BTEX	<0.300 0.300		04/07/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 % 71.5-13		4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	04/06/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/08/2023	ND	179	89.5	200	3.01	
DRO >C10-C28*	<10.0	10.0	04/08/2023	ND	167	83.3	200	7.34	
EXT DRO >C28-C36	<10.0	10.0	04/08/2023	ND					
Surrogate: 1-Chlorooctane	74.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	79.7	% 49.1-14	8						

Cardinal Laboratories *=Accredited Analyte

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Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

ecovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

-	(575) 393-2326	FAX (5/5) 393-	2476											>	F-C	1										
Company Nam	e: Ensolum, LLC										B]//	L TO		V				ANA	LYS	IS R	REQL	JEST			
Project Manage	er: Kalei Jennings								P.0	0. #	t				0				Т	T	T	T	T	\top	\top	T
Address: 601 N	Marienfeld Street, S	uite 400							Co	mp	any:	En	solum, L	LC	100									- 1		
City: Midland		State: TX	Zij	o: 79	9701				Att	n: k	Kalei .	Jei	nnings		7				1							
Phone #: 817-6	83-2503	Fax #:							Ad	dre	ss:				10											
Project #: 03D2	057073	Project Own	er:						Cit	y:					18						1			1		
Project Name:	MCA 400								Sta	ite:		2	Zip:		ak.											
Project Locatio	n: 32.805161,-103.760	0712							Pho	one	#:				A			()			1					
Sampler Name:	Peter Van Patten								Fax	x #:					竹	0										
FOR LAB USE ONLY			Τ.	Г	L	M	ATRI	X		PRE	SERV	V.	SAM	PLING	10	10	2				1					
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL		DATE	TIME	Chlorides	TPH (80	DIEX (805									
1	5504	0.5	C	1							1	13	3.31-23	1330	V	V	V	7				T				\neg
2	5504A	1.0	C	1		1	1				1	3	7-31-23	1335	V	V	V									
3	5507A	1.0	(3			1				1	13	-31-23	1340	V	1	V									\Box
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5	5509A	1.0'	C	1		4	1				V	13	1-31-23	1350	V	V	V							1		
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			\vdash	Н	H	+	+	H	+	+	+	₽	-			-	_	_			-	-	1	+	_	\perp
			+	H		+	+		+	+	+	+				-					-	+	+	+	-	+
LEASE NOTE: Liability an	d Damages. Cardinal's liability and c	lient's exclusive remedy for	any claim	arisino	a whet	her bas	ed in no	niract o	r tort s	thall b	a fmited	to the	a amount paid	by the eligat for												\perp

TLEAGE NOT 2: Listing and Damages. Cardinars liability and clients exclusive remedy for any claim arising whether based in contract or fort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date:	Received By:	Verbal Result: ☐ Yes	No Add'I Phone #:
12-16 vat	4523 Time:	San linin	All Results are emailed.	Please provide Email address:
100	1400	Droaldon)	(Kjennings@e	usdem, com
Relinquished By:	Date:	Received By:	REMARKS:	an incled about a
	Time:		U * customer	- pequested change from
			CL 30e	to CL 4500 serdigue
Delivered By: (Circle One)	Observed Temp. °C			Standard Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact Yes Yes	(Initials) Thermometer ID #113 Correction Factor -0.5°C	Rush Cool Intact Observed Temp. °C
FURM-006 R 3.2 10/07/21	10 11		Control of the Contro	No No Corrected Temp, °C

Released to Imaging: 10/4/2023 10:47:40 AM



101 East Marland, Hobbs, NM 88240

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	(575) 393-2326 F	AX (575) 393-	2476												W.	0										
Company Nam	e: Ensolum, LLC								Г		1	BI	LL TO		(0)	5		Α	NAL	YSIS	REC	QUES	ST.			
Project Manag	er: Kalei Jennings								P.	0. #	:															
Address: 601 N	Marienfeld Street, Su	uite 400							Co	omp	any	: E	nsolum, L	LC	ğ											
City: Midland		State: TX	Zip	: 79	701				At	tn: I	Kale	i Je	ennings		\$											
Phone #: 817-6	83-2503	Fax #:							Address:		1															
Project #: 03D2	2057073	Project Own	er:						Cit	ty:					8											
Project Name:	MCA 400								Sta	ate:			Zip:		if									7 8		
Project Location	on: 32.805161,-103.760	712							Ph	one	#:				EPA		_									
	: Peter Van Patten		_	_	_				_	x #:		_			ill	6	8021)									
FOR LAB USE ONLY			0.	ı		M	IATR	X	Т	PRI	ESE	RV.	SAME	PLING	5	0	18									
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chloride	TPH (8	BTEX (
6	5501A	1.0'	C	1			1				V		3-31-23	1245	/	1	V									
7	5502A	1.0	C	1		1	1				V		3-31-23	1250	V	V	V									
8	5503A	1.0	C	1			1				1		3:3(-23	1755	V	V	7									
9	5505A	1.0'	4	5			V		17		V		3-31-23	1300	1	V	V									
10	550 6A	1.0'	C	1			1				V		3-31-23	1305	1	V	\vee				_	_				
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EASE NOTE: Liability	and Damanas. Cardinal's liability and a	lante audunius esmadu for	new clair		o uhali	ar bar	od in o	potract	or fort	Ibeda	ha limi	and to	the amount naid	by the client for	The Char											_

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Relinquished By:	Date:	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
He Vitale	Time: 1400	Stockenus	Kjennings Censolum, com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition CHECKED BY:	Turnaround Time: Standard ☑ Bacteria (only) Sample Condition Rush ☐ Cool Intact Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C	182 Tyes Yes	Thermometer ID #113

[†] Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



May 23, 2023

KALEI JENNINGS
ENSOLUM
3122 NATIONAL PARKS HWY
CARLSBAD, NM 88220

RE: MCA 400

Enclosed are the results of analyses for samples received by the laboratory on 05/18/23 12:41.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023 Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Project Location: MAVERICK 32.805161,-103.760712

Sample ID: SS 10 .5 (H232525-01)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.7	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/19/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/21/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/21/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/21/2023	ND					
Surrogate: 1-Chlorooctane	107	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	117	% 49.1-14	8						

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Celey D. Keene



Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact Sample Received By: Project Number: 03D2057073 Shalyn Rodriguez

Project Location: MAVERICK 32.805161,-103.760712

Sample ID: SS 10 A 1 (H232525-02)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/21/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/21/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/21/2023	ND					
Surrogate: 1-Chlorooctane	130 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	143 9	% 49.1-14	8						

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Celey D. Keene



Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: JH

Project Location: MAVERICK 32.805161,-103.760712

mg/kg

Sample ID: SS 11 .5 (H232525-03)

BTEX 8021B

	9/	9	71.14.1, = 0	,					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.2	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/22/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/22/2023	ND					
Surrogate: 1-Chlorooctane	107	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact Sample Received By: Project Number: 03D2057073 Shalyn Rodriguez

Project Location: MAVERICK 32.805161,-103.760712

Sample ID: SS 11 A 1 (H232525-04)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/21/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/21/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/21/2023	ND					
Surrogate: 1-Chlorooctane	125 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	144 9	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact Sample Received By: Shalyn Rodriguez Project Number: 03D2057073

Project Location: MAVERICK 32.805161,-103.760712

Sample ID: SS 12 .5 (H232525-05)

BTEX 8021B	mg/	'kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/22/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/22/2023	ND					
Surrogate: 1-Chlorooctane	125 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	121	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: JH

Project Location: MAVERICK 32.805161,-103.760712

mg/kg

Sample ID: SS 12 A 1 (H232525-06)

BTEX 8021B

DILX GOZID	ıııg,	, kg	Andryzo	.u Dy. 311					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/19/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/19/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/19/2023	ND					
Surrogate: 1-Chlorooctane	133	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	148	% 49.1-14	8						

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05/17/2023

Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date:

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: JH

Project Location: MAVERICK 32.805161,-103.760712

mg/kg

Sample ID: SS 13 .5 (H232525-07)

BTEX 8021B

	<u> </u>			• •					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/19/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/19/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/19/2023	ND					
Surrogate: 1-Chlorooctane	120	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	135	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact Sample Received By: Project Number: 03D2057073 Shalyn Rodriguez

Analyzed By: JH

Project Location: MAVERICK 32.805161,-103.760712

mg/kg

Sample ID: SS 13 A 1 (H232525-08)

BTEX 8021B

DILX GOZID	ıııg,	- Kg	Andryzo	.u Dy. 311					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.5	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg/	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/19/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/19/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/19/2023	ND					
Surrogate: 1-Chlorooctane	128 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	144 9	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Project Location: MAVERICK 32.805161,-103.760712

Sample ID: SS 14 .5 (H232525-09)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/19/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/19/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/19/2023	ND					
Surrogate: 1-Chlorooctane	125	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	141	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: JH

Project Location: MAVERICK 32.805161,-103.760712

mg/kg

Sample ID: SS 14 A 1 (H232525-10)

BTEX 8021B

	9,	9	7	7: 5::					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/19/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/19/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/19/2023	ND					
Surrogate: 1-Chlorooctane	126	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	141	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Analyzed By: JH

Project Location: MAVERICK 32.805161,-103.760712

mg/kg

Sample ID: SS 15 .5 (H232525-11)

BTEX 8021B

	9/	9	7111411720	,					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.4	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/22/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/22/2023	ND					
Surrogate: 1-Chlorooctane	112 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109	% 49.1-14	8						

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Analytical Results For:

ENSOLUM KALEI JENNINGS 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received: 05/18/2023 Sampling Date: 05/17/2023

Reported: 05/23/2023 Sampling Type: Soil

Project Name: MCA 400 Sampling Condition: Cool & Intact
Project Number: 03D2057073 Sample Received By: Shalyn Rodriguez

Applyzod By: 14

Project Location: MAVERICK 32.805161,-103.760712

ma/ka

Sample ID: SS 15 A 1 (H232525-12)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	a By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2023	ND	2.29	115	2.00	3.84	
Toluene*	<0.050	0.050	05/20/2023	ND	2.27	113	2.00	4.19	
Ethylbenzene*	<0.050	0.050	05/20/2023	ND	2.35	118	2.00	5.70	
Total Xylenes*	<0.150	0.150	05/20/2023	ND	6.89	115	6.00	6.03	
Total BTEX	<0.300	0.300	05/20/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	05/19/2023	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/21/2023	ND	177	88.3	200	3.74	
DRO >C10-C28*	<10.0	10.0	05/21/2023	ND	188	94.2	200	5.97	
EXT DRO >C28-C36	<10.0	10.0	05/21/2023	ND					
Surrogate: 1-Chlorooctane	117	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	128	% 49.1-14	8						

Cardinal Laboratories *=Accredited Analyte

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Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

ecovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 15 of 16

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: Ensolum, LLC			BILL TO	ANALYSIS REQUEST
Project Manager: \\O\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Jennings		P.O. #: O. C.	
Address: 3122 Nat	1 Parts Hu	NW	Company:	
city: Paytobad	State: NW		Attn:	
Phone #: 505 240 79	514 Fax #:		Address:	
Project #: 06D20570	13 Project Owner	er: Maverick	City:	
Project Name: MA 4	00		State: Zip:	
Project Location: 27 \$	05/6/1,703.	760712	Phone #:	
Sampler Name: WIM	na Falco	Mata	Fax #: PRESERV SAMPLING	
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING	
Lab I.D. Sample	I.D. Depth (feet)	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL	SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	We have
15510	.5	G1 X	X 517/8 0930	$\times \times \times $
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5 55 12	1	1111	095	
6 SS 12H	.5		1000	
7 00 15 8 KC 12 N	1		005	
9 20 191	.5		1010	
10 55 14A	1	111 1	stead or but shall be limited to the amount paid by the client for	

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Relinquished By: Refinquished By:	Date:	Received By: Received By:	All Results are emailed. Please provide Email address: REMARKS: All Results are emailed. Please provide Email address: REMARKS:	ate
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. *Co	Cool Intact (Initials) Yes Yes No No No	Turnaround Time: Standard Rush Good Intact Observed Temp. "C Thermometer ID #113 Cerrection Factor -0.5"C	

Received by OCD: 7/13/2023 8:47:56 PM



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

	(373) 000 2020 11								1100	ALC:	RII	LL TO					ANA	LYSIS	KEC	UESI		
Company Name:	Ensolum, LLC							-	20		1	^								T		
Project Manager	: Maly Jen	MINGS,		_				-	2.0.		V	·O										
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city: COU	sperd	State: WW	Zip:	8	12	20		1	Attn	:				1 1				1 1		- 1		
Phone #:	68 7503	Fax #:						1	Addı	ress	:							1 1				
Project #: (38	D7157073	Project Owner	r: /	Mo	14	in(5		City:									1 1				
Project Name: \	M14400		,	4.1.					State	e:		Zip:		1				1 1				
Project Location	22505161	-118,76	00	16	1			F	Pho	ne #	:					5		1. 4				
Sampler Name:	Tillinund	Fala	W	ight	a			_	Fax				100	4 1		2						
FOR LAB USE ONLY	June		П			MA	TRIX		P	RES	ERV.	SAMP	LING			12.						
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	OIL	SLUDGE	OTHER:	ACID/BASE:	OTHER:	DATE	TIME	RICK	Hdy	OMIO						
H232525	6515	-5	A	7		X		0,		X		5/17/23	1020	X	X	X						-
12	SSISA	,5 1	04	1		X				1	1	5/17/13	1075	X	X	X		-		-	-	
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		a a training and the	anu ela	in aris	ing whe	dher bas	ed in co	entract o	or tort.	snall be	e imited	to the amount pa	m my mic output it		10							

analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any cla service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, under by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Relinquished By:	Date:	Received By: Received By:	Verbal Result: Yes No Add Frione All Results are emailed. Please provide Email address: REMARKS:
Delivered By: (Circle One)	Time:	Sample Condition CHECKED BY: Cool Intact (Initials)	Thermometer ID #113 Cool Intact Observed Temp. C
Sampler - UPS - Bus - Other: Co	rrected lemp. U	No No No	Cerrection Factor -0.5°C No Corrected Temp. C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/23/2023 12:28:09 PM

JOB DESCRIPTION

MCA 400 SDG NUMBER 03D2057073

JOB NUMBER

890-4119-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

Authorization

Generated 2/23/2023 12:28:09 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

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2/23/2023

Client: Ensolum
Project/Site: MCA 400
Laboratory Job ID: 890-4119-1
SDG: 03D2057073

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Definitions/Glossary

 Client: Ensolum
 Job ID: 890-4119-1

 Project/Site: MCA 400
 SDG: 03D2057073

Qualifiers

GC VOA Qualifier

 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

*1 LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

Glossary

MCL

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

Example 2 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)

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

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

NC Not Calculated

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

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

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

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Case Narrative

Client: Ensolum Job ID: 890-4119-1 Project/Site: MCA 400 SDG: 03D2057073

Job ID: 890-4119-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4119-1

Receipt

The sample was received on 2/16/2023 3:24 PM. 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 4.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-4119-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46929 and analytical batch 880-46928 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46823 and analytical batch 880-46829 recovered outside control limits for the following analytes: Diesel Range Organics (Over

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: 890-4119-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-4119-1

 Project/Site: MCA 400
 SDG: 03D2057073

Client Sample ID: SS04

Date Collected: 02/16/23 10:30 Date Received: 02/16/23 15:24

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202	mg/Kg		02/22/23 09:16	02/23/23 08:03	
Toluene	<0.00202	U	0.00202	mg/Kg		02/22/23 09:16	02/23/23 08:03	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/22/23 09:16	02/23/23 08:03	
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/22/23 09:16	02/23/23 08:03	
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/22/23 09:16	02/23/23 08:03	
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/22/23 09:16	02/23/23 08:03	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	111		70 - 130			02/22/23 09:16	02/23/23 08:03	
1,4-Difluorobenzene (Surr)	118		70 - 130			02/22/23 09:16	02/23/23 08:03	
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/23/23 12:18	
Analyte	Daguilé	O						
riidiyio	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
<u> </u>	944	Qualifier	RL 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/22/23 16:01	Dil Fa
Total TPH	944		50.0		<u>D</u>	Prepared		Dil Fa
Total TPH Method: SW846 8015B NM - Dies	944 sel Range Orga		50.0		<u>D</u> 	Prepared Prepared		
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	944 sel Range Orga	nics (DRO)	50.0 (GC)	mg/Kg			02/22/23 16:01	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	944 sel Range Orga Result	nics (DRO)	50.0 (GC)	mg/Kg		Prepared	02/22/23 16:01 Analyzed	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	944 sel Range Orga Result 434	nics (DRO) Qualifier	50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg		Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 19:33	Dil Fa
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 434 510	nics (DRO) Qualifier *1	50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 19:33 02/21/23 19:33	Dil Fa
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	944 sel Range Orga Result 434 510 <50.0	nics (DRO) Qualifier *1	50.0 (GC) RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 19:33 02/21/23 19:33	Dil Fa
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	sel Range Orga Result 434 510 <50.0 %Recovery	nics (DRO) Qualifier *1	50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared	02/22/23 16:01 Analyzed 02/21/23 19:33 02/21/23 19:33 02/21/23 19:33 Analyzed	Dil Fa
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 o-Terphenyl	944 sel Range Orga Result 434 510 <50.0 %Recovery 98 107	nics (DRO) Qualifier *1 U Qualifier	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 19:33 02/21/23 19:33 02/21/23 19:33 Analyzed 02/21/23 19:33	Dil Fa
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 o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte	944 sel Range Orga Result 434 510 <50.0	nics (DRO) Qualifier *1 U Qualifier	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/21/23 12:10 02/21/23 12:10 02/21/23 12:10 Prepared 02/21/23 12:10	02/22/23 16:01 Analyzed 02/21/23 19:33 02/21/23 19:33 02/21/23 19:33 Analyzed 02/21/23 19:33	Dil Fa

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Surrogate Summary

Job ID: 890-4119-1 Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4119-1	SS04	111	118
890-4123-A-1-B MS	Matrix Spike	82	85
890-4123-A-1-C MSD	Matrix Spike Duplicate	100	108
LCS 880-46929/1-A	Lab Control Sample	92	107
LCSD 880-46929/2-A	Lab Control Sample Dup	103	110
MB 880-46868/5-A	Method Blank	82	104
MB 880-46929/5-A	Method Blank	85	99

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

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

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

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
80-24982-A-1-B MS	Matrix Spike	117	106	
80-24982-A-1-C MSD	Matrix Spike Duplicate	120	109	
90-4119-1	SS04	98	107	
.CS 880-46823/2-A	Lab Control Sample	127	129	
.CSD 880-46823/3-A	Lab Control Sample Dup	114	108	
/IB 880-46823/1-A	Method Blank	104	108	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-4119-1 SDG: 03D2057073 Project/Site: MCA 400

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46868/5-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46868

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	1

MB MB

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	82	70 - 130
1,4-Difluorobenzene (Surr)	104	70 ₋ 130

Dil Fac Prepared Analyzed 02/21/23 14:34 02/22/23 11:49 02/21/23 14:34 02/22/23 11:49

Lab Sample ID: MB 880-46929/5-A	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 46928	Prep Batch: 46929
MB MB	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		02/22/23 09:16	02/23/23 02:51	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prep	pared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/22/2	23 09:16	02/23/23 02:51	1
1,4-Difluorobenzene (Surr)	99		70 - 130	02/22/2	23 09:16	02/23/23 02:51	1

Lab Sample ID: LCS 880-46929/1-A

Matrix: Solid Analysis Batch: 46928 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 46929

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1023		mg/Kg		102	70 - 130	
Toluene	0.100	0.1011		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.09373		mg/Kg		94	70 - 130	
m-Xylene & p-Xylene	0.200	0.1915		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09836		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	92	70 _ 130
1.4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: LCSD 880-46929/2-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Lab Control Sample Dup)
Prep Type: Total/NA	4

Prep Batch: 46929

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1102		mg/Kg		110	70 - 130	7	35

QC Sample Results

Client: Ensolum Job ID: 890-4119-1 Project/Site: MCA 400 SDG: 03D2057073

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

Lab Sample ID: LCSD 880-46929/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 46928 Prep Batch: 46929 Spike LCSD LCSD %Rec

							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.1089		mg/Kg		109	70 - 130	7	35
Ethylbenzene	0.100	0.1027		mg/Kg		103	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2128		mg/Kg		106	70 - 130	11	35
o-Xylene	0.100	0.1094		mg/Kg		109	70 - 130	11	35
1000 1000									

	LUSD	LUSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-4123-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 46928

o-Xylene

Prep Batch: 46929 MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene U F2 F1 0.101 0.04951 F1 70 - 130 <0.00202 mg/Kg 49 Toluene 0.00490 F1 0.101 0.07116 F1 66 70 - 130 mg/Kg Ethylbenzene 0.00362 0.101 0.07403 70 70 - 130 mg/Kg 0.202 m-Xylene & p-Xylene 0.00658 F1 0.1234 F1 58 70 - 130 mg/Kg

0.06386 F1

mg/Kg

60

70 - 130

	MS N	//S	
Surrogate	%Recovery C	Qualifier	Limits
4-Bromofluorobenzene (Surr)	82		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

0.00316 F1

Lab Sample ID: 890-4123-A-1-C MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

0.101

Matrix: Solid Analysis Batch: 46928

Prep Batch: 46929 %Rec Spike MSD MSD RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00202 U F2 F1 0.0992 0.09288 mg/Kg 93 70 - 130 61 35 Toluene 0.00490 0.0992 0.09288 mg/Kg 89 70 - 130 26 35 Ethylbenzene 0.00362 0.0992 0.08391 mg/Kg 81 70 - 130 13 35 0.00658 F1 0.198 0.1714 83 70 - 130 35 m-Xylene & p-Xylene mg/Kg 33 0.0992 o-Xylene 0.00316 F1 0.08869 mg/Kg 70 - 130 33 35

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

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

Lab Sample ID: MB 880-46823/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed <50.0 U 50.0 mg/Kg 02/21/23 08:38 02/21/23 08:17 Gasoline Range Organics

(GRO)-C6-C10

Analysis Batch: 46829

Eurofins Carlsbad

Prep Batch: 46823

o-Terphenyl

02/21/23 08:17

02/21/23 08:38

 Client: Ensolum
 Job ID: 890-4119-1

 Project/Site: MCA 400
 SDG: 03D2057073

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

108

Lab Sample ID: MB 880-46823/1-A

Matrix: Solid

Analysis Batch: 46829

MR MR

MR MR

	MID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
	MP	МВ						
	IVID	INID						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			02/21/23 08:38	02/21/23 08:17	1

70 - 130

- Lab Sample ID: LCS 880-46	823/2-A						Client	Sample	ID: Lab Control S
Matrix: Solid							Prep Type: T		
Analysis Batch: 46829									Prep Batch
_			Spike	LCS	LCS				%Rec
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics			1000	1049		mg/Kg		105	70 - 130
(GRO)-C6-C10									
Diesel Range Organics (Over			1000	1212		mg/Kg		121	70 - 130
C10-C28)									
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	127		70 - 130						
o-Terphenyl	129		70 - 130						

Lab Sample ID: LCSD 880-46823/3-A Matrix: Solid Analysis Batch: 46829				Clier	nt San	nple ID:		ol Sampl Type: To Batch:	tal/NA
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	857.5		mg/Kg		86	70 - 130	20	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	955.2	*1	mg/Kg		96	70 - 130	24	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-24982-A Matrix: Solid Analysis Batch: 46829	A-1-B MS							Client	Prep 1	: Matrix Spike Type: Total/NA Batch: 46823
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1193		mg/Kg		117	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U *1	997	1034		mg/Kg		102	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane			70 - 130							
o-Terphenyl	106		70 - 130							

Job ID: 890-4119-1

Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

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

Lab Sample ID: 880-24982-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 46829 Prep Batch: 46823

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<49.9	U	998	987.5		mg/Kg		97	70 - 130	19	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<49.9	U *1	998	1068		mg/Kg		105	70 - 130	3	20	

C10-C28)

MSD MSD Qualifier Limits Surrogate %Recovery

70 - 130 1-Chlorooctane 120 o-Terphenyl 109 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46828/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Soluble

Analysis Batch: 46871

MB MB Result Qualifier RL Unit Analyte D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 02/21/23 15:17

Lab Sample ID: LCS 880-46828/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid Prep Type: Soluble

Analysis Batch: 46871

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 236.5 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-46828/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 46871

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier Unit %Rec RPD Limits Limit

Chloride 250 243.9 98 90 - 110 mg/Kg

Lab Sample ID: 890-4116-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 46871

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

Chloride 251 90 - 110 132 mg/Kg 370.5

Lab Sample ID: 890-4116-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 46871

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

251 95 Chloride 132 371.3 90 - 110 20 mg/Kg 0

QC Association Summary

 Client: Ensolum
 Job ID: 890-4119-1

 Project/Site: MCA 400
 SDG: 03D2057073

GC VOA

Prep Batch:	46868
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46868/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 46928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Total/NA	Solid	8021B	46929
MB 880-46868/5-A	Method Blank	Total/NA	Solid	8021B	46868
MB 880-46929/5-A	Method Blank	Total/NA	Solid	8021B	46929
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	8021B	46929
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46929
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46929
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46929

Prep Batch: 46929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Total/NA	Solid	5035	
MB 880-46929/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 47045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24982-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24982-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Total/NA	Solid	8015B NM	46823
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015B NM	46823
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46823
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46823
880-24982-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	46823
880-24982-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46823

Analysis Batch: 46965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Total/NA	Solid	8015 NM	

QC Association Summary

 Client: Ensolum
 Job ID: 890-4119-1

 Project/Site: MCA 400
 SDG: 03D2057073

HPLC/IC

Leach Batch: 46828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Soluble	Solid	DI Leach	
MB 880-46828/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4116-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4116-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4119-1	SS04	Soluble	Solid	300.0	46828
MB 880-46828/1-A	Method Blank	Soluble	Solid	300.0	46828
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	300.0	46828
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46828
890-4116-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	46828
890-4116-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46828

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Lab Chronicle

Client: Ensolum Job ID: 890-4119-1 Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS04

Lab Sample ID: 890-4119-1 Date Collected: 02/16/23 10:30

Matrix: Solid

Date Received: 02/16/23 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 08:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47045	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46965	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46823	02/21/23 12:10	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 19:33	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1			46871	02/21/23 16:55	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: 890-4119-1 Project/Site: MCA 400 SDG: 03D2057073

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date 06-30-23	
		ELAP	T104704400-22-25		
The following analytes	are included in this report by		and the state of the second control of the s		
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for	
,	• '	Matrix	ed by the governing authority. This list ma	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

Method Summary

 Client: Ensolum
 Job ID: 890-4119-1

 Project/Site: MCA 400
 SDG: 03D2057073

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

Client: Ensolum Project/Site: MCA 400 Job ID: 890-4119-1

SDG: 03D2057073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4119-1	SS04	Solid	02/16/23 10:30	02/16/23 15:24	0.5'

Received by OCD: 7/13/2023 8:47:56 PM

Environment Testing

Xenco

Chain of Custody

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

Work Order No:	

Project Manager:	Josh	Adams				Bill to: (if	f different)		Kalei	Jennir	ngs										Work Order Comments				
Company Name:	Enso	lum, LLC				Compan	y Name:		Ensol	um, Ll	_C						Program: UST/PST PRP Brownfields RRC Superfund State of Project:								
Address:	601 N	N Marienfe	eld St S	uite 400		Address	X.		601 N	Marie	enfeld S	St Suite	400												
City, State ZIP:	Midla	nd, TX 79	701			City, Sta	ite ZIP:		Midla	nd, TX	79701	1					Reporting: Level II Level III PST/UST TRRP Level IV								
Phone:	303-5	17-8437			Email:	jadams	@ensolu	um.c	om, k	ennir	ıgs@e	ensolu	m.cor	n			Deliverables: EDD A				ADaP	т 🗆 С	other:		
Project Name:		M	CA 400		Turr	Around					-			ANA	YSIS	REQ	UEST						Pres	ervative	Codes
Project Number:		03D	205707	'3	✓ Routine	Rus		Pres. Code													<u> </u>		None: NO	DI	Water: H ₂ O
Project Location:		Lea C	County,	NM	Due Date:																l	İ	Cool: Cool	Me	eOH: Me
Sampler's Name:	Dmitry Nikanorov		TAT starts th							İ	ł	Ī	Ī	1	i		İ	HCL: HC HNO ₃ : HN							
PO #:			the lab, if received by 4:30pm			- 11									H ₂ S0 ₄ : H ₂ NaOH: Na										
SAMPLE RECE	PT	Temp E									H₃PO₄: HP														
Samples Received I	ntact:	(Yes)	No	Thermometer	ID:	TAM	207	araı	300.0)														NaHSO ₄ : N		
Cooler Custody Seals: Sample Custody Seals:		Yes No	-	Correction Factorian Temperature		7	. 4	4	PA:				89	0-411	9 Cha	ain of (of Custody					Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn			
		Yes No	NIA			-4			ES (E	_	=										/	NaOH+Aso			
Total Containers:			,					# of	RIDE	8015	(802												Macrinis		2: 07 11 0
Sample Ide	tificat	ion	Matrix	Date Sampled	Time Sampled	Depth		# of Cont	CHLORIDES (EPA:	TPH (8015)	BTEX (8021												Sam	ple Com	ments
SSC	14		s	2/16/2023	10:30	0.5'	Grab	1	х	х	х							-				-			
			-																						
			1																						
		1	2	7																					
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Total 200.7 / 6		200.8 / 6			CRA 13PF															Se			Na Sr TI S / 245.1 / 74		
	_																			s and					
Notice: Signature of this of service. Eurofins Xen of Eurofins Xenco. A min	on will be	a liable only f	or the cos	t of samples and	shall not assure	e any rest	onsibility fo	or any	losses	or expe	nses in	curred b	y the cl	lient if s	uch los	ses are	due to	circums	tances t	eyond	the con	itrol			
Relinguished by					d hv: (Signa		T			/Time						Signati					by: (S			Date	e/Time

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-4119-1

 SDG Number: 03D2057073

Login Number: 4119 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: 890-4119-1 SDG Number: 03D2057073

Login Number: 4119 **List Source: Eurofins Midland** List Number: 2

List Creation: 02/21/23 08:18 AM

Creator: Teel, Brianna

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	

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/23/2023 11:48:53 AM

JOB DESCRIPTION

MCA 400 SDG NUMBER 03D2057073

JOB NUMBER

890-4120-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Authorization

Generated 2/23/2023 11:48:53 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies Page 2 of 20

Client: Ensolum Laboratory Job ID: 890-4120-1 Project/Site: MCA 400 SDG: 03D2057073

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Definitions/Glossary

Job ID: 890-4120-1 Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

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**

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: 890-4120-1

 Project/Site: MCA 400
 SDG: 03D2057073

Job ID: 890-4120-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4120-1

Receipt

The sample was received on 2/16/2023 3:24 PM. 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 4.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS07 (890-4120-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46929 and analytical batch 880-46928 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

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

HPLC/IC

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

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Matrix: Solid

Lab Sample ID: 890-4120-1

Job ID: 890-4120-1

Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS07 Date Collected: 02/16/23 11:25 Date Received: 02/16/23 15:24

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:16	02/23/23 09:10	
Toluene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:16	02/23/23 09:10	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:16	02/23/23 09:10	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/22/23 09:16	02/23/23 09:10	
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/22/23 09:16	02/23/23 09:10	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/22/23 09:16	02/23/23 09:10	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	115		70 - 130			02/22/23 09:16	02/23/23 09:10	
1,4-Difluorobenzene (Surr)	103		70 - 130			02/22/23 09:16	02/23/23 09:10	
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/23/23 12:18	
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/23/23 11:59	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/22/23 16:36	02/23/23 04:53	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/22/23 16:36	02/23/23 04:53	
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/23 16:36	02/23/23 04:53	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	95		70 - 130			02/22/23 16:36	02/23/23 04:53	
o-Terphenyl	95		70 - 130			02/22/23 16:36	02/23/23 04:53	
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
•		-						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

4.97

mg/Kg

<4.97 U

Eurofins Carlsbad

02/21/23 17:01

Chloride

Surrogate Summary

 Client: Ensolum
 Job ID: 890-4120-1

 Project/Site: MCA 400
 SDG: 03D2057073

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Rec
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-4120-1	SS07	115	103	
890-4123-A-1-B MS	Matrix Spike	82	85	
890-4123-A-1-C MSD	Matrix Spike Duplicate	100	108	
LCS 880-46929/1-A	Lab Control Sample	92	107	
LCSD 880-46929/2-A	Lab Control Sample Dup	103	110	
MB 880-46868/5-A	Method Blank	82	104	
MB 880-46929/5-A	Method Blank	85	99	

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)	
890-4120-1	SS07	95	95	
890-4153-A-1-G MS	Matrix Spike	117	104	
890-4153-A-1-H MSD	Matrix Spike Duplicate	98	89	
LCS 880-46977/2-A	Lab Control Sample	98	88	
LCSD 880-46977/3-A	Lab Control Sample Dup	100	91	
MB 880-46977/1-A	Method Blank	126	127	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-4120-1 Project/Site: MCA 400 SDG: 03D2057073

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46868/5-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46868

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	•
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	•

MB MB

Surrogate	%Recovery	Qualifier	Limits	Pr
4-Bromofluorobenzene (Surr)	82		70 - 130	02/21
1.4-Difluorobenzene (Surr)	104		70 - 130	02/21

Prepared Analyzed Dil Fac 21/23 14:34 02/22/23 11:49 21/23 14:34 02/22/23 11:49

Lab Sample ID: MB 880-46929/5-A Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA Analysis Batch: 46928

Prep Batch: 46929

	III.D	W.D						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/22/23 09:16	02/23/23 02:51	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/22/23 09:1	02/23/23 02:51	1
1,4-Difluorobenzene (Surr)	99		70 - 130	02/22/23 09:1	02/23/23 02:51	1

Lab Sample ID: LCS 880-46929/1-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46929

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1023		mg/Kg		102	70 - 130	
Toluene	0.100	0.1011		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.09373		mg/Kg		94	70 - 130	
m-Xylene & p-Xylene	0.200	0.1915		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09836		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	92		70 - 130		
1,4-Difluorobenzene (Surr)	107		70 - 130		

Lab Sample ID: LCSD 880-46929/2-A

Released to Imaging: 10/4/2023 10:47:40 AM

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 46929

Spike LCSD LCSD RPD %Rec Result Qualifier Analyte Added Unit %Rec Limits RPD Limit Benzene 0.100 0.1102 mg/Kg 110 70 - 130

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Client: Ensolum Job ID: 890-4120-1 Project/Site: MCA 400 SDG: 03D2057073

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

Lab Sample ID: LCSD 880-46929/2-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 46929

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Toluene 0.100 0.1089 70 - 130 35 mg/Kg 109 7 Ethylbenzene 0.100 0.1027 mg/Kg 103 70 - 130 0.200 m-Xylene & p-Xylene 0.2128 mg/Kg 106 70 - 130 35 11 o-Xylene 0.100 0.1094 mg/Kg 109 70 - 130 11

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	103		70 - 130		
1,4-Difluorobenzene (Surr)	110		70 - 130		

Lab Sample ID: 890-4123-A-1-B MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 46928

Prep Type: Total/NA

Prep Batch: 46929

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1 F2	0.101	0.04951	F1	mg/Kg		49	70 - 130	
Toluene	0.00490	F1	0.101	0.07116	F1	mg/Kg		66	70 - 130	
Ethylbenzene	0.00362		0.101	0.07403		mg/Kg		70	70 - 130	
m-Xylene & p-Xylene	0.00658	F1	0.202	0.1234	F1	mg/Kg		58	70 - 130	
o-Xylene	0.00316	F1	0.101	0.06386	F1	mg/Kg		60	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	82	70 - 130
1,4-Difluorobenzene (Surr)	85	70 - 130

Lab Sample ID: 890-4123-A-1-C MSD

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 46929

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U F1 F2	0.0992	0.09288	F2	mg/Kg		93	70 - 130	61	35
Toluene	0.00490	F1	0.0992	0.09288		mg/Kg		89	70 - 130	26	35
Ethylbenzene	0.00362		0.0992	0.08391		mg/Kg		81	70 - 130	13	35
m-Xylene & p-Xylene	0.00658	F1	0.198	0.1714		mg/Kg		83	70 - 130	33	35
o-Xylene	0.00316	F1	0.0992	0.08869		mg/Kg		86	70 - 130	33	35

MSD MSD

Surrogate	76Recovery	Qualifier	LIIIIII
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

Lab Sample ID: MB 880-46977/1-A

Matrix: Solid

Analysis Batch: 46917

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

Prep Batch: 46977

	IVID	, MD						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		02/22/23 16:36	02/22/23 21:03	1
(CBO) C6 C10								

(GRO)-C6-C10

MD MD

Client: Ensolum Job ID: 890-4120-1 SDG: 03D2057073 Project/Site: MCA 400

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

Lab Sample ID: MB 880-46977/1-A

Lab Sample ID: LCS 880-46977/2-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 46917

Analysis Batch: 46917

Client	Sample	ID:	Method	Blank

Prep Type: Total/NA

Prep Batch: 46977

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		02/22/23 16:36	02/22/23 21:03	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/23 16:36	02/22/23 21:03	1

MB MB

MR MR

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	126		70 - 130	02/22/23 16:36	02/22/23 21:03	1
Į	o-Terphenyl	127		70 - 130	02/22/23 16:36	02/22/23 21:03	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46977

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 832.8 83 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 815.4 mg/Kg 82 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits		
1-Chlorooctane	98		70 - 130		
o-Terphenyl	88		70 - 130		

Lab Sample ID: LCSD 880-46977/3-A

Matrix: Solid

Analysis Batch: 46917

Prep Type: Total/NA

Prep Batch: 46977

	Spike	LCSD	LCSD			%Rec		RPD
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	878.3		mg/Kg	88	70 - 130	5	20
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	830.0		mg/Kg	83	70 - 130	2	20
C10-C28)								

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 100 70 - 130 o-Terphenyl 91 70 - 130

Lab Sample ID: 890-4153-A-1-G MS

Matrix: Solid

Analysis Batch: 46917

Cliont	Sample	ID· V	//atriv	Snika
CHEIL	Jailible	10. N	nauix	SUINE

Prep Type: Total/NA

Prep Batch: 46977

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <50.0 U 998 860.3 84 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 998 1043 70 - 130 Diesel Range Organics (Over 59.4 mg/Kg

C10-C28)

	INIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	104		70 - 130

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2/23/2023

Client: Ensolum Job ID: 890-4120-1 Project/Site: MCA 400 SDG: 03D2057073

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

Lab Sample ID: 890-4153-A-1-H MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 46917 Prep Batch: 46977

	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	997	988.5		mg/Kg		97	70 - 130	14	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	59.4		997	883.4		mg/Kg		83	70 - 130	17	20	
C10-C28)												

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 98 o-Terphenyl 89 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46828/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

мв мв

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 02/21/23 15:17

Lab Sample ID: LCS 880-46828/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	236.5		mg/Kg		95	90 - 110	

Lab Sample ID: LCSD 880-46828/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	243.9		mg/Kg	_	98	90 - 110	3	20	

Lab Sample ID: 890-4120-1 MS **Client Sample ID: SS07 Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	<4 97	П	249	240.7		ma/Ka		95	90 110	

Lab Sample ID: 890-4120-1 MSD **Client Sample ID: SS07**

Matrix: Solid

Analysis Batch: 46871

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	<4.97	U	249	240.4		mg/Kg		95	90 - 110	0	20

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Prep Type: Soluble

QC Association Summary

 Client: Ensolum
 Job ID: 890-4120-1

 Project/Site: MCA 400
 SDG: 03D2057073

GC VOA

Pre	n Ra	tch:	46868
1 10	p Da	wii.	+0000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46868/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 46928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4120-1	SS07	Total/NA	Solid	8021B	46929
MB 880-46868/5-A	Method Blank	Total/NA	Solid	8021B	46868
MB 880-46929/5-A	Method Blank	Total/NA	Solid	8021B	46929
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	8021B	46929
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46929
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46929
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46929

Prep Batch: 46929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4120-1	SS07	Total/NA	Solid	5035	
MB 880-46929/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 47046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4120-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 46917

Lab Sample ID 890-4120-1	Client Sample ID SS07	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 46977
MB 880-46977/1-A	Method Blank	Total/NA	Solid	8015B NM	46977
LCS 880-46977/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46977
LCSD 880-46977/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46977
890-4153-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	46977
890-4153-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46977

Prep Batch: 46977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4120-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-46977/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46977/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46977/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4153-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4153-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4120-1	SS07	Total/NA	Solid	8015 NM	

QC Association Summary

 Client: Ensolum
 Job ID: 890-4120-1

 Project/Site: MCA 400
 SDG: 03D2057073

HPLC/IC

Leach Batch: 46828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4120-1	SS07	Soluble	Solid	DI Leach	
MB 880-46828/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4120-1 MS	SS07	Soluble	Solid	DI Leach	
890-4120-1 MSD	SS07	Soluble	Solid	DI Leach	

Analysis Batch: 46871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4120-1	SS07	Soluble	Solid	300.0	46828
MB 880-46828/1-A	Method Blank	Soluble	Solid	300.0	46828
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	300.0	46828
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46828
890-4120-1 MS	SS07	Soluble	Solid	300.0	46828
890-4120-1 MSD	SS07	Soluble	Solid	300.0	46828

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Lab Chronicle

 Client: Ensolum
 Job ID: 890-4120-1

 Project/Site: MCA 400
 SDG: 03D2057073

Client Sample ID: SS07 Lab Sample ID: 890-4120-1

Date Collected: 02/16/23 11:25 Matrix: Solid

Date Collected: 02/16/23 11:25 Matrix: Solid

Date Received: 02/16/23 15:24

	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	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 09:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47046	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47031	02/23/23 11:59	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46977	02/22/23 16:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46917	02/23/23 04:53	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1			46871	02/21/23 17:01	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: 890-4120-1

 Project/Site: MCA 400
 SDG: 03D2057073

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	T104704400-22-25	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 adalemy.	ay molade analytes for
the agency does not of Analysis Method		Matrix	Analyte	ay molade analytes for
9 ,	fer certification.	•	, , ,	

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Method Summary

 Client: Ensolum
 Job ID: 890-4120-1

 Project/Site: MCA 400
 SDG: 03D2057073

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
3015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum Project/Site: MCA 400 Job ID: 890-4120-1

SDG: 03D2057073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4120-1	SS07	Solid	02/16/23 11:25	02/16/23 15:24	0.5'

Received by OCD: 7/13/2023 8:47:56 PM

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Environment Testing Xenco

Chain of Custody

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

Work Order No:	

www.xenco.com

Project Manager:	Josh Adams				Bill to: (if	Kalei Jennings							Work Order Comments								
Company Name:	Ensolum, LLC				Compan	Ensolum, LLC							Program: UST/PST PRP Brownfields RRC Superfund State of Project: Reporting: Level II Level III PST/UST TRRP Level IV								
Address:	601 N Marienfeld St Suite 400				Address	601 N Marienfeld St Suite 400															
City, State ZIP:	Midland, TX 79701				City, Sta	Midland, TX 79701															
Phone:					jadams@ensolum.com, kjennings@ensolum.com							Deliverables: EDD ☐ ADaPT ☐ Other:									
Project Name:	MCA 400				Turr	Turn Around				ANALYSIS F						EQUEST				Presen	ative Codes
Project Number:		03D2057073		☑ Routine	e Rush		Pres. Code												None: NO	DI Water: H₂O	
Project Location:			county, I	NM	Due Date:														Cool: Cool	MeOH: Me	
Sampler's Name: PO #:				TAT starts the day received by the lab, if received by 4:30pm			હ							 				HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na			
SAMPLE RECE	IPT	Temp B	Blank:	(es)No	Wet Ice:	Yes	No	nete	6				111111		MI					H₃PO₄: HP	
Samples Received Cooler Custody Sea	als: Yes No N/A Correction F		actor:	TAMP		a a	DES (EPA: 300.0)				Obein of Cus			stody			NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn				
Sample Custody Se Total Containers:	als: Yes No N/A Temperature					()				5)	890-4120 Chain of Custody			1	NaOH+Ascorbic Acid: SAPC						
Sample Ide	entification Ma		Matrix	Date Sampled	Time Sampled	Depth			CHLORIDES	TPH (8015)	BTEX (8021									Sample	Comments
SS	07		S	2/16/2023	11:25	0.5'	Grab		х	x	х										
					/								-					-			
								-													
													1					_			
			X	11	1			-		-		-	+	+				+	-		
		/																			
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			1							1]		1	1 1	1					1	

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DIV	Visigla Steet	2.110.23 152	4		
3			4		
5			6		nined Date 08/25/2020 Rev 202

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4120-1

SDG Number: 03D2057073

Login Number: 4120 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: 890-4120-1

SDG Number: 03D2057073

List Source: Eurofins Midland List Creation: 02/21/23 08:18 AM

Creator: Teel, Brianna

Login Number: 4120

List Number: 2

<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 True tampered with. Samples were received on ice. True True Cooler Temperature is acceptable. Cooler Temperature is recorded. True COC is present. True COC is filled out in ink and legible. True COC is filled out with all pertinent information. True Is the Field Sampler's name present on COC? True There are no discrepancies between the containers received and the COC. True Samples are received within Holding Time (excluding tests with immediate True HTs) Sample containers have legible labels. True Containers are not broken or leaking. True Sample collection date/times are provided. True Appropriate sample containers are used. True Sample bottles are completely filled. True Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested True MS/MSDs

True

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Eurofins Carlsbad
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Containers requiring zero headspace have no headspace or bubble is

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/23/2023 11:49:40 AM

JOB DESCRIPTION

MCA 400 SDG NUMBER 03D2057073

JOB NUMBER

890-4121-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Authorization

Generated 2/23/2023 11:49:40 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of

Client: Ensolum
Project/Site: MCA 400
Laboratory Job ID: 890-4121-1
SDG: 03D2057073

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Definitions/Glossary

 Client: Ensolum
 Job ID: 890-4121-1

 Project/Site: MCA 400
 SDG: 03D2057073

Qualifiers

GC VOA
Qualifier

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

Qualifier Description

GC Semi VOA

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

HPLC/IC

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

Glossary

LOD

LOQ

MCL

MDA

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)

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)

Limit of Detection (DoD/DOE)

Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Activity (Radiochemistry)

 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: 890-4121-1

 Project/Site: MCA 400
 SDG: 03D2057073

Job ID: 890-4121-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4121-1

Receipt

The samples were received on 2/16/2023~3:24~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 $4.0^{\circ}C$

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4121-1), SS02 (890-4121-2), SS03 (890-4121-3), SS05 (890-4121-4) and SS06 (890-4121-5).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS01 (890-4121-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46929 and analytical batch 880-46928 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS03 (890-4121-3) and SS05 (890-4121-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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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Client: Ensolum Job ID: 890-4121-1 Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS01

Lab Sample ID: 890-4121-1 Date Collected: 02/16/23 10:00 Matrix: Solid

Date Received: 02/16/23 15:24

Samp	le C)ept	h: (0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 09:44	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 09:44	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 09:44	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/22/23 09:16	02/23/23 09:44	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/22/23 09:16	02/23/23 09:44	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/22/23 09:16	02/23/23 09:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65	S1-	70 - 130			02/22/23 09:16	02/23/23 09:44	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/22/23 09:16	02/23/23 09:44	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/23/23 12:18	1
: Method: SW846 8015 NM - Diese		ics (DRO) (GC)					·
• •			GC)	Unit	<u>D</u>	Prepared	Analyzed	
: Method: SW846 8015 NM - Diese		ics (DRO) (GC)		<u>D</u>	Prepared		
Method: SW846 8015 NM - Diese Analyte	Result 85.6	ics (DRO) ((Qualifier	RL 49.9	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	Result 85.6 sel Range Orga	ics (DRO) ((Qualifier	RL 49.9	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	Result 85.6 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 49.9 (GC)	Unit mg/Kg			Analyzed 02/23/23 11:59	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 85.6 sel Range Orga Result	Qualifier nics (DRO) Qualifier	(GC) RL RL RL	Unit mg/Kg		Prepared	Analyzed 02/23/23 11:59 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	Result 85.6 sel Range Orga Result <49.9	ics (DRO) (Oualifier nics (DRO) Qualifier U	(GC) RL 49.9 (GC) RL 49.9	Unit mg/Kg Unit mg/Kg		Prepared 02/22/23 10:27	Analyzed 02/23/23 11:59 Analyzed 02/22/23 18:55	Dil Fac Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 85.6 sel Range Orga Result <49.9 85.6	ics (DRO) (Oualifier nics (DRO) Qualifier U	(GC) RL 49.9 (GC) RL 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 02/22/23 10:27 02/22/23 10:27	Analyzed 02/23/23 11:59 Analyzed 02/22/23 18:55 02/22/23 18:55	Dil Fac Dil Fac 1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 85.6 sel Range Orga Result <49.9 85.6 449.9	ics (DRO) (Oualifier mics (DRO) Qualifier U	GC) RL 49.9 (GC) RL 49.9 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 02/22/23 10:27 02/22/23 10:27 02/22/23 10:27	Analyzed 02/23/23 11:59 Analyzed 02/22/23 18:55 02/22/23 18:55	Dil Fac Dil Fac 1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	ics (DRO) (Oualifier mics (DRO) Qualifier U	GC) RL 49.9 (GC) RL 49.9 49.9 49.9 Limits	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 02/22/23 10:27 02/22/23 10:27 02/22/23 10:27 Prepared	Analyzed 02/23/23 11:59 Analyzed 02/22/23 18:55 02/22/23 18:55 02/22/23 18:55 Analyzed	Dil Fac Dil Fac 1 Dil Fac 1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	ics (DRO) ((Qualifier nics (DRO) Qualifier U	GC) RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 02/22/23 10:27 02/22/23 10:27 02/22/23 10:27 Prepared 02/22/23 10:27	Analyzed 02/23/23 11:59 Analyzed 02/22/23 18:55 02/22/23 18:55 Analyzed 02/22/23 18:55	Dil Fac Dil Fac 1 Dil Fac 1 1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	ics (DRO) ((Qualifier nics (DRO) Qualifier U	GC) RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 02/22/23 10:27 02/22/23 10:27 02/22/23 10:27 Prepared 02/22/23 10:27	Analyzed 02/23/23 11:59 Analyzed 02/22/23 18:55 02/22/23 18:55 Analyzed 02/22/23 18:55	Dil Fac 1 Dil Fac 1 1 Dil Fac 1

Client Sample ID: SS02 Lab Sample ID: 890-4121-2 Matrix: Solid

Date Collected: 02/16/23 10:05 Date Received: 02/16/23 15:24

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/22/23 09:16	02/23/23 10:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/22/23 09:16	02/23/23 10:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/22/23 09:16	02/23/23 10:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/22/23 09:16	02/23/23 10:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/22/23 09:16	02/23/23 10:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/22/23 09:16	02/23/23 10:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/22/23 09:16	02/23/23 10:05	

Client: Ensolum Job ID: 890-4121-1 Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS02 Lab Sample ID: 890-4121-2 Matrix: Solid

Date Collected: 02/16/23 10:05 Date Received: 02/16/23 15:24

Sample Depth: 0.5'

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	120	70 - 130	02/22/23 09:16	02/23/23 10:05	1

Method: TAL SO	OP Total BTEX	- Total RTFY	Calculation
INICIIIOG. IAL O	JI IOLAI DI LA	- IUlai DILA	Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398 U	0.00398	ma/Ka			02/23/23 12:18	1

Mathed CMO4C CO4E NM Discal Dance Occasion (DI	201	1001	
Method: SW846 8015 NM - Diesel Range Organics (DI	くしょいし	((36.)	

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 U	49.9	ma/Ka			02/23/23 11:59	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

	o tago o. ga		(00)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/22/23 10:27	02/22/23 19:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/22/23 10:27	02/22/23 19:16	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/23 10:27	02/22/23 19:16	1
Surrogate	%Recovery	Qualifier	l imite			Prenared	Analyzod	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88	70 - 130	02/22/23 10:27	02/22/23 19:16	1
o-Terphenyl	86	70 - 130	02/22/23 10:27	02/22/23 19:16	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte		Qualifier RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	7270	50.0	mg/Kg			02/21/23 17:26	10	

Lab Sample ID: 890-4121-3 **Client Sample ID: SS03**

Date Collected: 02/16/23 10:10 Date Received: 02/16/23 15:24

Sample Depth: 0.5'

Method:	· SW846 802	1B - Volatile	Organic Co	ompounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.153		0.0397	mg/Kg		02/22/23 09:16	02/23/23 11:28	20
Toluene	< 0.0397	U	0.0397	mg/Kg		02/22/23 09:16	02/23/23 11:28	20
Ethylbenzene	< 0.0397	U	0.0397	mg/Kg		02/22/23 09:16	02/23/23 11:28	20
m-Xylene & p-Xylene	<0.0794	U	0.0794	mg/Kg		02/22/23 09:16	02/23/23 11:28	20
o-Xylene	< 0.0397	U	0.0397	mg/Kg		02/22/23 09:16	02/23/23 11:28	20
Xylenes, Total	<0.0794	U	0.0794	mg/Kg		02/22/23 09:16	02/23/23 11:28	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			02/22/23 09:16	02/23/23 11:28	20
1,4-Difluorobenzene (Surr)	131	S1+	70 - 130			02/22/23 09:16	02/23/23 11:28	20

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.153	0.0794	ma/Ka			02/23/23 12:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/23/23 11:59	1

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Matrix: Solid

Job ID: 890-4121-1

Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS03 Lab Sample ID: 890-4121-3 Date Collected: 02/16/23 10:10 Matrix: Solid

Date Received: 02/16/23 15:24 Sample Depth: 0.5'

Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		02/22/23 10:27	02/22/23 19:38	1
<50.0	U	50.0	mg/Kg		02/22/23 10:27	02/22/23 19:38	1
<50.0	U	50.0	mg/Kg		02/22/23 10:27	02/22/23 19:38	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
90		70 - 130			02/22/23 10:27	02/22/23 19:38	1
87		70 - 130			02/22/23 10:27	02/22/23 19:38	1
	<50.0 <50.0 <50.0 < %Recovery 90		<50.0 U 50.0 <50.0 U 50.0 <50.0 U 50.0 <60.0 U 50.0 60.0 WRecovery Qualifier Limits 60.0 To -130	<50.0	<50.0	<50.0	<50.0 U 50.0 mg/Kg 02/22/23 10:27 02/22/23 19:38 <50.0

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier Analyzed Analyte RL Unit D Prepared Dil Fac 10800 02/21/23 17:45 Chloride 99.6 mg/Kg

Client Sample ID: SS05 Lab Sample ID: 890-4121-4 Date Collected: 02/16/23 10:35 **Matrix: Solid**

Date Received: 02/16/23 15:24

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	0.172		0.0396	mg/Kg		02/22/23 09:16	02/23/23 11:49	20
Toluene	< 0.0396	U	0.0396	mg/Kg		02/22/23 09:16	02/23/23 11:49	20
Ethylbenzene	< 0.0396	U	0.0396	mg/Kg		02/22/23 09:16	02/23/23 11:49	20
m-Xylene & p-Xylene	<0.0792	U	0.0792	mg/Kg		02/22/23 09:16	02/23/23 11:49	20
o-Xylene	< 0.0396	U	0.0396	mg/Kg		02/22/23 09:16	02/23/23 11:49	20
Xylenes, Total	<0.0792	U	0.0792	mg/Kg		02/22/23 09:16	02/23/23 11:49	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/22/23 09:16	02/23/23 11:49	20
1,4-Difluorobenzene (Surr)	134	S1+	70 - 130			02/22/23 09:16	02/23/23 11:49	20
Analyte Total BTEX	0.172	Qualifier	0.0792	Mg/Kg	<u>D</u>	Prepared	Analyzed 02/23/23 12:18	
Total BTEX Method: SW846 8015 NM - Diese	0.172 el Range Organ	ics (DRO) (0.0792 GC)	mg/Kg	<u> </u>		02/23/23 12:18	1
Total BTEX Method: SW846 8015 NM - Diese Analyte	0.172 el Range Organ Result	ics (DRO) (C	0.0792 GC)	mg/Kg	<u>D</u>	Prepared	02/23/23 12:18 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result <49.8	ics (DRO) ((Qualifier U	0.0792 GC) RL 49.8	mg/Kg	<u> </u>		02/23/23 12:18	1
Total BTEX Method: SW846 8015 NM - Diese Analyte	el Range Organ Result <49.8 sel Range Organ	ics (DRO) ((Qualifier	0.0792 GC) RL 49.8	mg/Kg	<u> </u>		02/23/23 12:18 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	el Range Organ Result <49.8 sel Range Organ	Qualifier U nics (DRO) Qualifier	0.0792 GC) RL 49.8	mg/Kg Unit mg/Kg	<u>D</u>	Prepared	02/23/23 12:18 Analyzed 02/23/23 11:59	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result <49.8 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U nics (DRO) Qualifier U	0.0792 GC) RL 49.8 (GC) RL	mg/Kg Unit mg/Kg Unit	<u>D</u>	Prepared Prepared	02/23/23 12:18 Analyzed 02/23/23 11:59 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	el Range Organ Result <49.8 Sel Range Orga Result <49.8 <49.8	ics (DRO) (O Qualifier U nics (DRO) Qualifier U	0.0792 RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg Unit mg/Kg	<u>D</u>	Prepared Prepared 02/22/23 10:27	02/23/23 12:18 Analyzed 02/23/23 11:59 Analyzed 02/22/23 20:00	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result 49.8 Sel Range Orga Result 49.8 49.8 49.8	cics (DRO) (On Qualifier Unics (DRO) Qualifier U	0.0792 RL 49.8 (GC) RL 49.8 49.8	mg/Kg Unit mg/Kg Unit mg/Kg mg/Kg	<u>D</u>	Prepared Prepared 02/22/23 10:27 02/22/23 10:27	02/23/23 12:18 Analyzed 02/23/23 11:59 Analyzed 02/22/23 20:00 02/22/23 20:00	Dil Fac Dil Fac 1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	el Range Organ Result 49.8 Sel Range Orga Result 49.8 49.8 49.8 49.8	cics (DRO) (On Qualifier Unics (DRO) Qualifier U	0.0792 RL 49.8 (GC) RL 49.8 49.8 49.8	mg/Kg Unit mg/Kg Unit mg/Kg mg/Kg	<u>D</u>	Prepared Prepared 02/22/23 10:27 02/22/23 10:27	02/23/23 12:18 Analyzed 02/23/23 11:59 Analyzed 02/22/23 20:00 02/22/23 20:00 02/22/23 20:00	Dil Fac Dil Fac 1 Dil Fac

Project/Site: MCA 400

Client: Ensolum Job ID: 890-4121-1 SDG: 03D2057073

Lab Sample ID: 890-4121-4

Date Collected: 02/16/23 10:35 Date Received: 02/16/23 15:24

Client Sample ID: SS05

Matrix: Solid

Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion C	lethod: EPA 300.0 - Anions, Ion Chromatography - Soluble							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	8460	100	mg/Kg			02/21/23 17:51	20	

Client Sample ID: SS06 Lab Sample ID: 890-4121-5

Date Collected: 02/16/23 10:40 Date Received: 02/16/23 15:24

Matrix: Solid

Sample Depth: 0.5'

Analyte

Total BTEX

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 10:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 10:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 10:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/22/23 09:16	02/23/23 10:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 10:26	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/22/23 09:16	02/23/23 10:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			02/22/23 09:16	02/23/23 10:26	1
1,4-Difluorobenzene (Surr)	112		70 - 130			02/22/23 09:16	02/23/23 10:26	1

Method: SW846 8015 NM - Diesel	Range Organi	cs (DRO) (GO	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	723		50.0	mg/Kg			02/23/23 11:59	1
Method: SW846 8015B NM - Diese	el Range Orga	nics (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	275		50.0	mg/Kg		02/22/23 10:27	02/22/23 20:21	1

0.00399

Unit

mg/Kg

Prepared

Analyzed

02/23/23 12:18

Result Qualifier

<0.00399 U

1
1
Dil Fac
1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	Э									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Chloride	6300		49.8	mg/Kg			02/21/23 17:57	10				

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Dil Fac

Surrogate Summary

Client: Ensolum Job ID: 890-4121-1 Project/Site: MCA 400 SDG: 03D2057073

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Re
		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-4121-1	SS01	65 S1-	99	
390-4121-2	SS02	106	120	
390-4121-3	SS03	102	131 S1+	
390-4121-4	SS05	104	134 S1+	
390-4121-5	SS06	108	112	
390-4123-A-1-B MS	Matrix Spike	82	85	
390-4123-A-1-C MSD	Matrix Spike Duplicate	100	108	
CS 880-46929/1-A	Lab Control Sample	92	107	
CSD 880-46929/2-A	Lab Control Sample Dup	103	110	
MB 880-46868/5-A	Method Blank	82	104	
MB 880-46929/5-A	Method Blank	85	99	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1CO1	OTPH1	
Sample ID	Client Sample ID	(70-130)	(70-130)	
-4121-1	SS01	98	94	
-4121-2	SS02	88	86	
-4121-3	SS03	90	87	
-4121-4	SS05	89	87	
-4121-5	SS06	95	99	
880-46937/2-A	Lab Control Sample	120	109	
O 880-46937/3-A	Lab Control Sample Dup	122	110	
880-46937/1-A	Method Blank	125	124	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-4121-1 SDG: 03D2057073 Project/Site: MCA 400

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46868/5-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46868

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	_	02/21/23 14:34	02/22/23 11:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		02/21/23 14:34	02/22/23 11:49	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	
4-Bromofluorobenzene (Surr)	82		70 - 130	
1,4-Difluorobenzene (Surr)	104		70 - 130	

Dil Fac Prepared Analyzed 02/21/23 14:34 02/22/23 11:49 02/21/23 14:34 02/22/23 11:49

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

Prep Batch: 46929

Analysis Batch: 46928 мв мв

Lab Sample ID: MB 880-46929/5-A

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/22/23 09:16	02/23/23 02:51	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prep	pared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/22/2	23 09:16	02/23/23 02:51	1
1,4-Difluorobenzene (Surr)	99		70 - 130	02/22/2	23 09:16	02/23/23 02:51	1

Lab Sample ID: LCS 880-46929/1-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 46929

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1023		mg/Kg		102	70 - 130	
Toluene	0.100	0.1011		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.09373		mg/Kg		94	70 - 130	
m-Xylene & p-Xylene	0.200	0.1915		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09836		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	r Limits
4-Bromofluorobenzene (Surr)	92	70 - 130
1.4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: LCSD 880-46929/2-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46929

•	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1102		mg/Kg		110	70 - 130	7	35

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QC Sample Results

Client: Ensolum Job ID: 890-4121-1 SDG: 03D2057073 Project/Site: MCA 400

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

Lab Sample ID: LCSD 880-46929/2-A

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46929

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.1089		mg/Kg		109	70 - 130	7	35
Ethylbenzene	0.100	0.1027		mg/Kg		103	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2128		mg/Kg		106	70 - 130	11	35
o-Xylene	0.100	0.1094		mg/Kg		109	70 - 130	11	35

LCSD LCSD

Surrogate	%Recovery (Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-4123-A-1-B MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 46928

Prep Type: Total/NA

Prep Batch: 46929

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1 F2	0.101	0.04951	F1	mg/Kg		49	70 - 130	
Toluene	0.00490	F1	0.101	0.07116	F1	mg/Kg		66	70 - 130	
Ethylbenzene	0.00362		0.101	0.07403		mg/Kg		70	70 - 130	
m-Xylene & p-Xylene	0.00658	F1	0.202	0.1234	F1	mg/Kg		58	70 - 130	
o-Xylene	0.00316	F1	0.101	0.06386	F1	mg/Kg		60	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	82	70 - 130
1,4-Difluorobenzene (Surr)	85	70 - 130

Lab Sample ID: 890-4123-A-1-C MSD

Matrix: Solid

Analysis Batch: 46928

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46929

		Sample	Sample	Spike	MSD	MSD				%Rec		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Benzene	<0.00202	U F1 F2	0.0992	0.09288	F2	mg/Kg		93	70 - 130	61	35
	Toluene	0.00490	F1	0.0992	0.09288		mg/Kg		89	70 - 130	26	35
	Ethylbenzene	0.00362		0.0992	0.08391		mg/Kg		81	70 - 130	13	35
	m-Xylene & p-Xylene	0.00658	F1	0.198	0.1714		mg/Kg		83	70 - 130	33	35
	o-Xylene	0.00316	F1	0.0992	0.08869		mg/Kg		86	70 - 130	33	35
ı												

MSD MSD

Surroyate	76Recovery	Qualifier	Lillits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

Lab Sample ID: MB 880-46937/1-A

Matrix: Solid

Analysis Batch: 46917

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

Prep Batch: 46937

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		02/22/23 10:27	02/22/23 09:13	1
(GRO)-C6-C10								

 Client: Ensolum
 Job ID: 890-4121-1

 Project/Site: MCA 400
 SDG: 03D2057073

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

Lab Sample ID: MB 880-46937/1-A

Matrix: Solid

Analysis Batch: 46917

MB MB

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46937

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		02/22/23 10:27	02/22/23 09:13	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/23 10:27	02/22/23 09:13	1
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			02/22/23 10:27	02/22/23 09:13	1
o-Terphenyl	124		70 - 130			02/22/23 10:27	02/22/23 09:13	1

_										
Lab Sample ID: LCS 880-469 Matrix: Solid	937/2-A						Client	Sample	ID: Lab Control S Prep Type: T	
Analysis Batch: 46917									Prep Batch	
,,			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			999	1012		mg/Kg		101	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over			999	996.5		mg/Kg		100	70 - 130	
C10-C28)										
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	120		70 - 130							
o-Terphenyl	109		70 - 130							

Lab Sample ID: LCSD 880-46937/3-A Matrix: Solid Analysis Batch: 46917	Matrix: Solid Analysis Batch: 46917					nple ID:		ol Samplo Type: Toto Batch:	tal/NA
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	999	930.7		mg/Kg		93	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	999	999.6		mg/Kg		100	70 - 130	0	20

C10-C28)			
	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	110		70 - 130
1-Chlorooctane	%Recovery 122		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46828/1-A		Client Sample ID: Method Blank						
Matrix: Solid							Prep Type:	Soluble
Analysis Batch: 46871								
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5 00	ma/Ka			02/21/23 15:17	

QC Sample Results

Client: Ensolum Job ID: 890-4121-1 Project/Site: MCA 400 SDG: 03D2057073

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-46828/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 46871

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 236.5 mg/Kg 95 90 - 110

Lab Sample ID: LCSD 880-46828/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 46871

Spike LCSD LCSD %Rec RPD Added Limit Analyte Result Qualifier Unit D %Rec Limits RPD Chloride 250 243.9 mg/Kg 98 90 - 110 3

Lab Sample ID: 890-4120-A-1-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Soluble

Analysis Batch: 46871

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit Limits Chloride <4.97 U 249 240.7 90 - 110 mg/Kg

Lab Sample ID: 890-4120-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 46871

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Qualifier Unit %Rec RPD Limit Result Limits 240.4 Chloride <4.97 249 95 90 - 110 0 20 mg/Kg

QC Association Summary

 Client: Ensolum
 Job ID: 890-4121-1

 Project/Site: MCA 400
 SDG: 03D2057073

GC VOA

Prep Batch: 46868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46868/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 46928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4121-1	SS01	Total/NA	Solid	8021B	46929
890-4121-2	SS02	Total/NA	Solid	8021B	46929
890-4121-3	SS03	Total/NA	Solid	8021B	46929
890-4121-4	SS05	Total/NA	Solid	8021B	46929
890-4121-5	SS06	Total/NA	Solid	8021B	46929
MB 880-46868/5-A	Method Blank	Total/NA	Solid	8021B	46868
MB 880-46929/5-A	Method Blank	Total/NA	Solid	8021B	46929
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	8021B	46929
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46929
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46929
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46929

Prep Batch: 46929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4121-1	SS01	Total/NA	Solid	5035	 -
890-4121-2	SS02	Total/NA	Solid	5035	
890-4121-3	SS03	Total/NA	Solid	5035	
890-4121-4	SS05	Total/NA	Solid	5035	
890-4121-5	SS06	Total/NA	Solid	5035	
MB 880-46929/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 47047

Lab Sample ID 890-4121-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method Total BTEX	Prep Batch
890-4121-2	SS02	Total/NA	Solid	Total BTEX	
890-4121-3	SS03	Total/NA	Solid	Total BTEX	
890-4121-4	SS05	Total/NA	Solid	Total BTEX	
890-4121-5	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 46917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4121-1	SS01	Total/NA	Solid	8015B NM	46937
890-4121-2	SS02	Total/NA	Solid	8015B NM	46937
890-4121-3	SS03	Total/NA	Solid	8015B NM	46937
890-4121-4	SS05	Total/NA	Solid	8015B NM	46937
890-4121-5	SS06	Total/NA	Solid	8015B NM	46937
MB 880-46937/1-A	Method Blank	Total/NA	Solid	8015B NM	46937
LCS 880-46937/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46937
LCSD 880-46937/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46937

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QC Association Summary

Client: Ensolum Job ID: 890-4121-1 Project/Site: MCA 400 SDG: 03D2057073

GC Semi VOA

Prep Batch: 46937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4121-1	SS01	Total/NA	Solid	8015NM Prep	
890-4121-2	SS02	Total/NA	Solid	8015NM Prep	
890-4121-3	SS03	Total/NA	Solid	8015NM Prep	
890-4121-4	SS05	Total/NA	Solid	8015NM Prep	
890-4121-5	SS06	Total/NA	Solid	8015NM Prep	
MB 880-46937/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46937/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46937/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4121-1	SS01	Total/NA	Solid	8015 NM	
890-4121-2	SS02	Total/NA	Solid	8015 NM	
890-4121-3	SS03	Total/NA	Solid	8015 NM	
890-4121-4	SS05	Total/NA	Solid	8015 NM	
890-4121-5	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46828

I ah Sampla ID	Client Semple ID	Pron Type	Matrix	Method	Dron Potob
Lab Sample ID 890-4121-1	Client Sample ID SS01	Prep Type Soluble	Solid	DI Leach	Prep Batch
890-4121-2	SS02	Soluble	Solid	DI Leach	
890-4121-3	SS03	Soluble	Solid	DI Leach	
890-4121-4	SS05	Soluble	Solid	DI Leach	
890-4121-5	SS06	Soluble	Solid	DI Leach	
MB 880-46828/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4120-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4120-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 46871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4121-1	SS01	Soluble	Solid	300.0	46828
890-4121-2	SS02	Soluble	Solid	300.0	46828
890-4121-3	SS03	Soluble	Solid	300.0	46828
890-4121-4	SS05	Soluble	Solid	300.0	46828
890-4121-5	SS06	Soluble	Solid	300.0	46828
MB 880-46828/1-A	Method Blank	Soluble	Solid	300.0	46828
LCS 880-46828/2-A	Lab Control Sample	Soluble	Solid	300.0	46828
LCSD 880-46828/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46828
890-4120-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	46828
890-4120-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	46828

Client: Ensolum Job ID: 890-4121-1 Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS01 Lab Sample ID: 890-4121-1

Date Collected: 02/16/23 10:00 Matrix: Solid Date Received: 02/16/23 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 09:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47047	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47026	02/23/23 11:59	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46937	02/22/23 10:27	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46917	02/22/23 18:55	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		10			46871	02/21/23 17:20	CH	EET MID

Client Sample ID: SS02 Lab Sample ID: 890-4121-2

Date Collected: 02/16/23 10:05 Matrix: Solid Date Received: 02/16/23 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 10:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47047	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47026	02/23/23 11:59	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46937	02/22/23 10:27	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46917	02/22/23 19:16	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		10			46871	02/21/23 17:26	CH	EET MID

Client Sample ID: SS03 Lab Sample ID: 890-4121-3 Date Collected: 02/16/23 10:10

Date Received: 02/16/23 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	46928	02/23/23 11:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47047	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47026	02/23/23 11:59	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46937	02/22/23 10:27	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46917	02/22/23 19:38	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		20			46871	02/21/23 17:45	CH	EET MID

Client Sample ID: SS05 Lab Sample ID: 890-4121-4 Date Collected: 02/16/23 10:35 **Matrix: Solid**

Date Received: 02/16/23 15:24

	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	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	46928	02/23/23 11:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47047	02/23/23 12:18	AJ	EET MID

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Matrix: Solid

Client: Ensolum Job ID: 890-4121-1 Project/Site: MCA 400 SDG: 03D2057073

Client Sample ID: SS05 Lab Sample ID: 890-4121-4

Date Collected: 02/16/23 10:35 Matrix: Solid Date Received: 02/16/23 15:24

	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			47026	02/23/23 11:59	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	46937	02/22/23 10:27	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46917	02/22/23 20:00	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		20			46871	02/21/23 17:51	CH	EET MID

Client Sample ID: SS06 Lab Sample ID: 890-4121-5

Date Collected: 02/16/23 10:40 Matrix: Solid

Date Received: 02/16/23 15:24

	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	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 10:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47047	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47026	02/23/23 11:59	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46937	02/22/23 10:27	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46917	02/22/23 20:21	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46828	02/21/23 09:25	KS	EET MID
Soluble	Analysis	300.0		10			46871	02/21/23 17:57	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-4121-1

 Project/Site: MCA 400
 SDG: 03D2057073

Laboratory: Eurofins Midland

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

Authority	Pr	Program		Expiration Date
Texas	NE	ELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report by	it the leberatory is not contiffi	iad butba gavarning authority. This list was	
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: 890-4121-1 Client: Ensolum Project/Site: MCA 400 SDG: 03D2057073

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum Project/Site: MCA 400 Job ID: 890-4121-1 SDG: 03D2057073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4121-1	SS01	Solid	02/16/23 10:00	02/16/23 15:24	0.5'
890-4121-2	SS02	Solid	02/16/23 10:05	02/16/23 15:24	0.5'
890-4121-3	SS03	Solid	02/16/23 10:10	02/16/23 15:24	0.5'
890-4121-4	SS05	Solid	02/16/23 10:35	02/16/23 15:24	0.5'
890-4121-5	SS06	Solid	02/16/23 10:40	02/16/23 15:24	0.5'

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Received by OCD: 7/13/2023 8:47:56 PM



Environment Testing Xenco

Chain of Custody

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

Work Order No:		

www.xenco.com

Project Manager:	Josh Adams				Bill to: (if	different	t)	Kalei Jennings					Work Order Comments												
	Ensolur	m, LLC				Compan	y Name	9:	Enso	lum, Ll	.c						Program: UST/PST PRP Brownfields RRC Superfund								
	601 N N	Marienfeld	d St Si	uite 400		Address: 601 N Marienfeld St Suite 400				State of Project:															
City, State ZIP:	Midland	d, TX 797	01			City, State ZIP: Midla				Midland, TX 79701					Reporting: Level II Level III PST/UST TRRP Level IV										
	303-51	7-8437			Email:	jadams	@ensc	lum.c	om, k	jennin	gs@e	nsolu	m.con	Ū			Deliv	erables:	EDD			ADaP	т 🗆 С	Other:	
Project Name:		MC	A 400		Turr	Around								ANAL	YSIS	REQ	UEST						Pres	ervativ	ve Codes
Project Number:			05707	3	☑ Routine	Rus	h	Pres. Code															None: NO		DI Water: H ₂ 0
Project Location:		Lea Co	untv. I	VM	Due Date:																		Cool: Cool		MeOH: Me
Sampler's Name:	ampler's Name: Dmitry Nikanorov				TAT starts the day receive													HCL: HC HNO3: HN							
PO#:				the lab, if re	ceived by 4	1:30pm	m <u>v</u>												H ₂ S0 ₄ : H ₂ NaOH: Na						
SAMPLE RECEI	PT	Temp Bla	ank:	Yes) No	Wet Ice:			nete	6				IIII	MIM				H II II					H₃PO₄: HP		
Samples Received In	tact:	res 1	V2	Thermomete	r ID:	TAM-	207	ara	300.0)				IIIII										NaHSO ₄ : N		
Cooler Custody Seals			actor:	-0	.2	a	PA:					MININ N				Na ₂ S ₂ O ₃ : NaSO ₃									
Sample Custody Sea							CHLORIDES (EPA:	015)	(8021		890-4121 Chain of Custody			uy Z	Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC										
Total Containers:			mperature:												1 1 1 1 1				NaOH+ASCOIDIC ACId. SAFC						
Sample Iden	tification	n	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp		CHLOF	TPH (8015)	втех (Sam	ple Co	omments
SS0	1		S	2/16/2023	10:00	0.5'	Grab	1	х	х	х												1		
SSO	2		S ,	2/16/2023	10:05	0.5	Grab	1	x_	x	x														
SS0:	3		S	2/16/2023	10:10	0.5'	Grab	1	х	х	×														
SS0	5	9	sˈ	2/16/2023	10:35	0.5'	Grab	1	x	×	x														
SSO	6	9	S	2/16/2023	10:40	0.5'	Grab	1	x	x	×														
		1																							
									<u></u>																
	/	TO	1																						
										_												_	 		
Total 200.7 / 60	10 2	200.8 / 60	20:	85	CRA 13PI	PM Tex	as 11	AI S	b As	Ba B	е В	Cd C	a Cr	Co C	u Fe	Pb I	vig M	n Mo	Ni K	Se	Ag Si	iO ₂ N	la Sr TI S	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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
P(V	America Stut	2-16:23 152	4		
		4			
		6			evised Date: 08/25/2020 Rev

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-4121-1

 SDG Number: 03D2057073

Login Number: 4121 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: 890-4121-1

SDG Number: 03D2057073

Login Number: 4121 **List Source: Eurofins Midland** List Number: 2

List Creation: 02/21/23 08:18 AM

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

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings Ensolum 601 N. Marienfeld St.

Suite 400 Midland, Texas 79701

Generated 4/3/2023 1:48:40 PM

JOB DESCRIPTION

Maverick MCA 400 SDG NUMBER Lea County NM

JOB NUMBER

890-4359-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Authorization

Generated 4/3/2023 1:48:40 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Client: Ensolum
Project/Site: Maverick MCA 400

Laboratory Job ID: 890-4359-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum Job ID: 890-4359-1
Project/Site: Maverick MCA 400 SDG: Lea County NM

NM

Qualifiers

GC VOA

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier Qualifier Description

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

HPLC/IC

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

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

NC Not Calculated

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

 NEG
 Negative / Absent

 POS
 Positive / Present

 PQL
 Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: Maverick MCA 400

Job ID: 890-4359-1

SDG: Lea County NM

Job ID: 890-4359-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4359-1

Receipt

The sample was received on 3/20/2023 9:01 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 2.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-4359-1).

GC VOA

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

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4352-A-1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: SS04 (890-4359-1). 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

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

Client Sample Results

Client: Ensolum Job ID: 890-4359-1 Project/Site: Maverick MCA 400 SDG: Lea County NM

Client Sample ID: SS04

Released to Imaging: 10/4/2023 10:47:40 AM

Date Received: 03/20/23 09:01

Lab Sample ID: 890-4359-1 Date Collected: 03/17/23 10:45 Matrix: Solid

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/27/23 16:41	03/30/23 16:22	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/27/23 16:41	03/30/23 16:22	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/27/23 16:41	03/30/23 16:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/27/23 16:41	03/30/23 16:22	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/27/23 16:41	03/30/23 16:22	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/27/23 16:41	03/30/23 16:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			03/27/23 16:41	03/30/23 16:22	1
1,4-Difluorobenzene (Surr)	106		70 - 130			03/27/23 16:41	03/30/23 16:22	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			03/31/23 12:09	1
	•		•					
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte	•	Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/27/23 11:30	Dil Fac
Analyte Total TPH	Result < 50.0	Qualifier U	50.0		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die	Result <50.0 sel Range Organia	Qualifier U	50.0		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics	Result <50.0 sel Range Organia	Qualifier Unics (DRO) Qualifier	RL 50.0	mg/Kg		<u> </u>	03/27/23 11:30	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: 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 50.0 (GC)	mg/Kg		Prepared	03/27/23 11:30 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	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 03/24/23 16:46	03/27/23 11:30 Analyzed 03/26/23 19:29	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 03/24/23 16:46 03/24/23 16:46	03/27/23 11:30 Analyzed 03/26/23 19:29 03/26/23 19:29	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	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 03/24/23 16:46 03/24/23 16:46 03/24/23 16:46	03/27/23 11:30 Analyzed 03/26/23 19:29 03/26/23 19:29 03/26/23 19:29	Dil Fac
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	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 03/24/23 16:46 03/24/23 16:46 03/24/23 16:46 Prepared	03/27/23 11:30 Analyzed 03/26/23 19:29 03/26/23 19:29 03/26/23 19:29 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion	Result <50.0	Qualifier U nics (DRO) Qualifier U U Qualifier S1+ S1+	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 03/24/23 16:46 03/24/23 16:46 03/24/23 16:46 Prepared 03/24/23 16:46	03/27/23 11:30 Analyzed 03/26/23 19:29 03/26/23 19:29 Analyzed 03/26/23 19:29	Dil Fac 1 Dil Fac 1 1 Dil Fac 1 1 Dil Fac
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 o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U Qualifier S1+ S1+	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 03/24/23 16:46 03/24/23 16:46 03/24/23 16:46 Prepared 03/24/23 16:46	03/27/23 11:30 Analyzed 03/26/23 19:29 03/26/23 19:29 Analyzed 03/26/23 19:29	1 Dil Fac 1 1 1 1 Dil Fac 1

Surrogate Summary

Client: Ensolum Job ID: 890-4359-1 Project/Site: Maverick MCA 400 SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

•				Percent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-26282-A-81-G MS	Matrix Spike	103	108	
880-26282-A-81-H MSD	Matrix Spike Duplicate	96	105	
890-4359-1	SS04	99	106	
LCS 880-49668/1-A	Lab Control Sample	97	110	
LCSD 880-49668/2-A	Lab Control Sample Dup	99	108	
MB 880-49668/5-A	Method Blank	86	101	
Surrogate Legend				
BFB = 4-Bromofluoroben	zene (Surr)			
DFBZ = 1,4-Difluorobenz	ene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4352-A-1-B MS	Matrix Spike	79	76
890-4359-1	SS04	167 S1+	154 S1+
LCS 880-49456/2-A	Lab Control Sample	77	83
LCSD 880-49456/3-A	Lab Control Sample Dup	76	85
MB 880-49456/1-A	Method Blank	107	111

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum

Job ID: 890-4359-1

SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49668/5-A

Lab Sample ID: LCS 880-49668/1-A

Matrix: Solid

Matrix: Solid Analysis Batch: 49921

Project/Site: Maverick MCA 400

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49668

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/27/23 16:41	03/30/23 12:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/27/23 16:41	03/30/23 12:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/27/23 16:41	03/30/23 12:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/27/23 16:41	03/30/23 12:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/27/23 16:41	03/30/23 12:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/27/23 16:41	03/30/23 12:49	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	_	03/27/23 16:41	03/30/23 12:49	1
1,4-Difluorobenzene (Surr)	101		70 - 130		03/27/23 16:41	03/30/23 12:49	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49668

Analysis Batch: 49921 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1106 mg/Kg 111 70 - 130 Toluene 0.100 0.1078 mg/Kg 108 70 - 130 0.100 0.09809 Ethylbenzene mg/Kg 98 70 - 130 0.200 0.1929 96 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.09750 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-49668/2-A

Analysis Batch: 49921

Prep Type: Total/NA Prep Batch: 49668

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1093		mg/Kg		109	70 - 130	1	35	
Toluene	0.100	0.1087		mg/Kg		109	70 - 130	1	35	
Ethylbenzene	0.100	0.09789		mg/Kg		98	70 - 130	0	35	
m-Xylene & p-Xylene	0.200	0.1927		mg/Kg		96	70 - 130	0	35	
o-Xylene	0.100	0.09709		mg/Kg		97	70 - 130	0	35	

LCSD LCSD

Surrogate	%Recovery Qu	alifier Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: 880-26282-A-81-G MS

Matrix: Solid

Analysis Batch: 49921

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

Prep Batch: 49668

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.1028		mg/Kg	_	103	70 - 130	
Toluene	<0.00200	U	0.0998	0.1021		mg/Kg		101	70 - 130	

Client: Ensolum

Project/Site: Maverick MCA 400

Job ID: 890-4359-1

SDG: Lea County NM

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

Lab Sample ID: 880-26282-A-81-G MS

Lab Sample ID: 880-26282-A-81-H MSD

Matrix: Solid

Matrix: Solid

Analysis Batch: 49921

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49668

Sample	Sample	Spike	MS	MS				%Rec	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
<0.00200	U	0.0998	0.09248		mg/Kg		93	70 - 130	
<0.00401	U	0.200	0.1819		mg/Kg		91	70 - 130	
<0.00200	U	0.0998	0.09104		mg/Kg		91	70 - 130	
	<0.00200	Result Qualifier	Result Qualifier Added <0.00200	Result Qualifier Added Result <0.00200	Result Qualifier Added Result Qualifier <0.00200	Result Qualifier Added Result Qualifier Unit <0.00200	Result Qualifier Added Result Qualifier Unit D <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec Limits <0.00200

MS MS

Surrogate	%Recovery Quali	ifier Limits
4-Bromofluorobenzene (Surr)	103	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49668

Analysis Batch: 49921 Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.0990 Benzene <0.00200 U 0.09538 mg/Kg 96 70 - 130 8 35 Toluene 0.09252 92 <0.00200 U 0.0990 mg/Kg 70 - 130 10 35 Ethylbenzene <0.00200 U 0.0990 0.08453 mg/Kg 85 70 - 130 9 35 <0.00401 U 0.198 0.1662 70 - 130 35 m-Xylene & p-Xylene mg/Kg 9 <0.00200 U 0.0990 0.08314 84 70 - 130 o-Xylene mg/Kg

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-49456/1-A

Matrix: Solid

Analysis Batch: 49514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49456

	IIID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 16:46	03/26/23 08:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 16:46	03/26/23 08:27	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 16:46	03/26/23 08:27	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130		03/24/23 16:46	03/26/23 08:27	1
o-Terphenyl	111		70 - 130	1	03/24/23 16:46	03/26/23 08:27	1

Lab Sample ID: LCS 880-49456/2-A

Matrix: Solid

Released to Imaging: 10/4/2023 10:47:40 AM

Analysis Batch: 49514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49456

	Spike	: LCS	LCS				%Rec	
Analyte	Added	l Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	882.5		mg/Kg	_	88	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	790.5		mg/Kg		79	70 - 130	
C10-C28)								

Job ID: 890-4359-1

Client: Ensolum Project/Site: Maverick MCA 400

SDG: Lea County NM

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

Lab Sample ID: LCS 880-49456/2-A

Lab Sample ID: LCSD 880-49456/3-A

Lab Sample ID: 890-4352-A-1-B MS

Matrix: Solid

(GRO)-C6-C10

Matrix: Solid

Analysis Batch: 49514

Analysis Batch: 49514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49456

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 77 70 - 130 o-Terphenyl 83 70 - 130

Client Sample ID: Lab Control Sample Dup

70 - 130

80

Prep Type: Total/NA

2

Matrix: Solid Analysis Batch: 49514 Prep Batch: 49456 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 935.9 94 70 - 1306 20 Gasoline Range Organics mg/Kg

802.7

Diesel Range Organics (Over 1000 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 76 85 70 - 130 o-Terphenyl

Client Sample ID: Matrix Spike

03/31/23 22:20

Prep Type: Total/NA

Prep Batch: 49456

Sample Sample MS MS Spike Analyte Result Qualifier hahhA Result Qualifier Unit %Rec Limits D Gasoline Range Organics <49.9 U 998 831.5 mg/Kg 79 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 998 797.6 mg/Kg 80 70 - 130

C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 79 70 - 130 o-Terphenyl 76

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49881/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analyte

Chloride

Analysis Batch: 50038

MB MB Dil Fac Result Qualifier RL Unit D Prepared Analyzed

mg/Kg

mg/Kg

5.00 Lab Sample ID: LCS 880-49881/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Analysis Batch: 50038

Spike LCS LCS %Rec Result Analyte Added Qualifier Limits Unit Chloride 250 263.2 mg/Kg 105 90 - 110

<5.00 U

Eurofins Carlsbad

Prep Type: Soluble

20

QC Sample Results

Client: Ensolum Job ID: 890-4359-1 Project/Site: Maverick MCA 400

SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-49881/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 50038

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	263.2		mg/Kg		105	90 - 110	0	20	

Lab Sample ID: 890-4352-A-11-D MS Client Sample ID: Matrix Spike **Matrix: Solid**

Prep Type: Soluble

Analysis Batch: 50038

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	33.6		252	285.7		mg/Kg		100	90 - 110	

Lab Sample ID: 890-4352-A-11-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Soluble

Analysis Batch: 50038

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	33.6		252	285.7		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum

Project/Site: Maverick MCA 400

Job ID: 890-4359-1 SDG: Lea County NM

GC VOA

Prep Batch: 49668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4359-1	SS04	Total/NA	Solid	5035	
MB 880-49668/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49668/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49668/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26282-A-81-G MS	Matrix Spike	Total/NA	Solid	5035	
880-26282-A-81-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4359-1	SS04	Total/NA	Solid	8021B	49668
MB 880-49668/5-A	Method Blank	Total/NA	Solid	8021B	49668
LCS 880-49668/1-A	Lab Control Sample	Total/NA	Solid	8021B	49668
LCSD 880-49668/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49668
880-26282-A-81-G MS	Matrix Spike	Total/NA	Solid	8021B	49668
880-26282-A-81-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49668

Analysis Batch: 50036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4359-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49456

Lab Sample ID 890-4359-1	Client Sample ID SS04	Prep Type Total/NA	Matrix Solid	Method Prep Batch
MB 880-49456/1-A	Method Blank	Total/NA	Solid	8015NM Prep
LCS 880-49456/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep
LCSD 880-49456/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep
890-4352-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep

Analysis Batch: 49514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4359-1	SS04	Total/NA	Solid	8015B NM	49456
MB 880-49456/1-A	Method Blank	Total/NA	Solid	8015B NM	49456
LCS 880-49456/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49456
LCSD 880-49456/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49456
890-4352-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49456

Analysis Batch: 49621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4359-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49881

Released to Imaging: 10/4/2023 10:47:40 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4359-1	SS04	Soluble	Solid	DI Leach	
MB 880-49881/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49881/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49881/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4352-A-11-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4352-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Eurofins Carlsbad

Page 12 of 21

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QC Association Summary

Client: Ensolum

Project/Site: Maverick MCA 400

Job ID: 890-4359-1

SDG: Lea County NM

HPLC/IC

Analysis Batch: 50038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4359-1	SS04	Soluble	Solid	300.0	49881
MB 880-49881/1-A	Method Blank	Soluble	Solid	300.0	49881
LCS 880-49881/2-A	Lab Control Sample	Soluble	Solid	300.0	49881
LCSD 880-49881/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49881
890-4352-A-11-D MS	Matrix Spike	Soluble	Solid	300.0	49881
890-4352-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49881

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Date Received: 03/20/23 09:01

Lab Chronicle

Client: Ensolum Job ID: 890-4359-1 Project/Site: Maverick MCA 400 SDG: Lea County NM

Client Sample ID: SS04 Lab Sample ID: 890-4359-1 Date Collected: 03/17/23 10:45

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	49668	03/27/23 16:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49921	03/30/23 16:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50036	03/31/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			49621	03/27/23 11:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49456	03/24/23 16:46	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49514	03/26/23 19:29	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49881	03/29/23 16:18	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50038	04/01/23 00:21	SMC	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum

Project/Site: Maverick MCA 400

Job ID: 890-4359-1

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	T104704400-22-25	06-30-23
The following analytes are included in this report, but the laborate the agency does not offer certification.		t the laboratory is not certifi	ed by the governing authority. This list ma	y include analytes for w
the agency does not of	• •	t the laboratory to not oor tin	ed by the governing additionty. This list the	ay include analytes for v
the agency does not of Analysis Method	• •	Matrix	Analyte	y molude analytes for v
0 ,	fer certification.	•	, , ,	

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Method Summary

Client: Ensolum

Project/Site: Maverick MCA 400

Job ID: 890-4359-1

SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

1.

Sample Summary

Client: Ensolum

Project/Site: Maverick MCA 400

Job ID: 890-4359-1 SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4359-1	SS04	Solid	03/17/23 10:45	03/20/23 09:01	0.5'

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eurofins

Environment Testing Xenco

Chain of Custody

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

Work Order	No:			
AAOIK OIGEI	NO.	 	 	_

www.xenco.com

Project Manager:	Kalei	Jennings	3			Bill to: (it	differen	1)	Kalei	Jenni	ngs								Wo	rk Ord	der Co	omments		
Company Name:	Enso	lum, LLC				Compar	y Name):	Enso	lum, L	LC					Pro	gram: US	ST/PST	PF	RP[] B	3rownfi	ields 🗌 RF	RC Supe	erfund 🗌
Address:	601 N	Marienf	eld St S	uite 400		Address	:		601 N	Marie	enfeld	St Suite	e 400				e of Pro							
City, State ZIP:	Midla	nd, TX 79	9701			City, Sta	te ZIP:		Midla	nd, TX	7970	1				1						UST 🗌 TF		evel IV
Phone:	817-6	83-2503			Email	kjennin	gs@en	solun	.com	, dnik	anoro	v@en:	solum.	com		Deli	verables:	EDD		Al	DaPT I	☐ Ot	her:	
Project Name:		Maver	ick MCA	400	Tur	1 Around							-	NALY	SIS RE	QUES	T					Prese	rvative Co	des
Project Number:		030	205707	73	✓ Routine	Rus	h	Pres. Code													N	lone: NO	DI Wa	ater: H ₂ O
Project Location:		Lea (County,	NM	Due Date:																С	Cool: Cool	MeOH	ł: Me
Sampler's Name: PO #:		Dmitr	y Nikano	orov	TAT starts the the lab, if re			<u>ة</u>					<u> </u> 		: 110441114	HWW		Ċ				ICL: HC I ₂ S0 ₄ : H ₂	HNO₃ NaOH	
SAMPLE RECE	IPT	Temp I	Blank:	Yes No	Wet Ice:	Yes	No	neters	6	l					Millin	HWI						1 ₃ PO ₄ ; HP		
Samples Received Cooler Custody Sea Sample Custody Sea	als:	Yes No		Thermometer Correction Fa Temperature	actor:	1MT 0-	2	Parar	CHLORIDES (EPA: 300.0)				890-43	59 Cha	ain of Cu	ustody					N	NaHSO₄: NA Na₂S₂O₃: Na In Acetate+	aSO ₃	
Total Containers:				Corrected Te	mperature:		\mathcal{O}		DES	15)	1021		1	- 1	-	1					N	IaOH+Asco	orbic Acid: S	SAPC
Sample Ide	ntificati	ion	Matrix	Date Sampled	Time Sampled	Depth		# of Cont	CHLOR	TPH (8015)	BTEX (8021											Samp	le Comme	ents
SS	04		S	3/17/2023	10:45	0.5'	Grab	1	Х	Х	Х				.	-	-			+	+			
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Total 200.7 / 6	010	200.8 / 6	3020:	8R	CRA 13PF	PM Tex	as 11	AI St) As	Ba E	Be B	Cd Ca	a Cr C	Co Cu	Fe Pb	Mg I	/in Mo	Ni K	Se A	g SíC) ₂ Na	Sr TI Sr	U V Zn	

Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed

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 II Sh U V Zh TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631/245.1/7470 /7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
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1211 W Florida Ave

1211 W Florida Ave
Midland TX 79701

Chain of Custody Record



👶 eurofins

Environment Testing

4/3/2023

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Released to Imaging: 10/4/2023 10:47:40 AM

Phone 432-704-5440														Σ						1	Environme	ent lesting
Client Information (Sub Contract Lab)	Sampler ⁻	ampler Lab PM Kramer Je					essica					C	amer 1	racking	No(s)			COC No. 880-6566 1				
Shipping/Receiving	Phone	none E-Mail						Gramer@et.eurofinsus.com					tate of		***************************************	******	······································	Page.				
Company Eurofins Environment Testing South Centr					Acc	reditat	tions Re	quired					New Mexico					Job #: 890-4359-1				
Address	Due Date Requeste	d		·	-	LAF	- 1636	15											359-1 rvation C	odee		
1211 W Florida Ave City	3/24/2023	······································							Α	naly	sis	Requ	este	d				A HC		N		
Midland	TAT Requested (da	ıys):				V											3,	B Na	ОН	N		ļ
State Zip: TX 79701						d) (g)	Ŧ										ļ		Acetate ric Acid HSO4	Ç	Na2O4S Na2SO3	
Phone ⁻ 432-704-5440(Tel)	PO#				IJ		FLEE										2002	F Me G Am	OH nchlor	S	Na2S2O3 H2SO4 TSP Dode	cabudrata
Email	WO #:				၂원	_	(MOC	lorid	×									I Ice	corbic Acid	י נ ע	Acetone	canydrate
Project Name	Project #:			·	- 2	₹	<u>a</u>	Ď	BE							ļ	2	K ED		٧	V pH 4-5	1
Maverick MCA 400	89000094				됞	S	ν,	EAC	8								i i	L ED.			Trizma other (spe	cifv)
Site	SSOW#				Sample	اڠ	16NM	ا ا	Si (B								Containers					,,
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water S=solid, O=waste/oil, IT=Tissue, A=A!	ld Filtered	Perform MS/MS	8016MOD_NM/8016NM_S_Prep (MOD) Full 8016MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV							Total Number of		Special	lnet	ructions/l	Jota
		\gg	Preservat		′⊠	Ż	717		1		regrange			1			$-\sqrt{2}$	1 -	Special	IIISL	uctions/i	vote:
SS04 (890-4359-1)	3/17/23	10 45		Solid	ΪĬ		x x	x	x	x			1		1		1			Same and the same of the same		
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Note Since laboratory accreditations are subject to change, Eurofins Environment laboratory does not currently maintain accreditation in the State of Origin listed aboratory does not surrently maintain accreditation status should be brought to Eurofins Environment Testing South Cen																						
Possible Hazard Identification		······································																	ger than			
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Deliverable Requested I II III IV Other (specify)	Primary Delivera	able Rank. 2	2			Spec					equire	ement					, ., .,				NOITE	
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Relinquished by	Date/Time ⁻		Company				Received by						Date/Time.				C	ompany				
Custody Seals Intact: Custody Seal No Δ Yes Δ No						C	Cooler T	emper	ature(s) °C ar	nd Oth	er Rem	arks.	····	<u></u>					L		

Ver 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4359-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 4359 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: 890-4359-1 SDG Number: Lea County NM

List Source: Eurofins Midland

List Source: Eurotins Midland
List Creation: 03/21/23 11:22 AM

List Number: 2 Creator: Teel, Brianna

Login Number: 4359

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

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APPENDIX E

NMOCD Notifications

From: Enviro, OCD, EMNRD

To: Kalei Jennings

Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD

Subject: RE: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 3/20/2023)

Date: Thursday, March 16, 2023 8:16:44 AM

Attachments: image005.jpg

image006.png image007.png image008.png image009.png

[**EXTERNAL EMAIL**]

Kalei,

Kalei,

Thank you for the notification. The notification requirement is two full business days which for sampling on Monday would be at the lates at the end of the workday on Wednesday. If you can please provide specific times and dates of sampling in all future communications also, please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you for your cooperation.

JH

Jocelyn Harimon • Environmental Specialist

Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

http://www.emnrd.nm.gov



From: Kalei Jennings <kjennings@ensolum.com>

Sent: Thursday, March 16, 2023 7:29 AM

To: Enviro, OCD, EMNRD < OCD.Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 3/20/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Permian, LLC (Maverick) plans to complete sampling activities at the following sites the week of March 20, 2023.

- SEMU Permian 37 / NAPP2305453661
- EVGSAU 2963-001/ NAPP2235371799
- Grayburg Eumont Straw Battery/ NAPP2302036818
- MCA 351/ NAPP2302034681
- MCA 254/ NAPP2302035947
- MCA 400/NAPP2305455050

Thank you,



From: Enviro, OCD, EMNRD
To: Kalei Jennings

Subject: RE: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 3/27/2023)

Date: Thursday, March 23, 2023 3:23:38 PM

Attachments: <u>image005.jpg</u>

image006.png image007.png image008.png image009.png

[**EXTERNAL EMAIL**]

Kalei,

Please disregard my previous email. My apologies. I see that you will begin sampling on 03/28/2023 and that you have provided dates for each site. Thank you!

Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon • Environmental Specialist

Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

http://www.emnrd.nm.gov



From: Kalei Jennings <kjennings@ensolum.com>

Sent: Thursday, March 23, 2023 1:47 PM

To: Enviro, OCD, EMNRD < OCD.Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 3/27/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All.

Maverick Permian, LLC (Maverick) plans to complete sampling activities at the following site the week of March 27, 2023.

- Grayburg Eumont Straw Battery/ NAPP2302036818
 - Sampling Date: 3/28/2023 & 3/29/2023
- MCA 351/ NAPP2302034681

• Sampling Date: 3/30/2023 & 3/31/2023

• MCA 254/ NAPP2302035947

• Sampling Date: 3/28/2023 & 3/29/2023

• MCA 400/NAPP230545505

• Sampling Date: 3/29/2023

• MCA 301/ NAPP230755601

• Sampling Date: 3/31/2023

• SC Federal Battery / NAPP2303272686

• Sampling Date: 3/28/2023 & 3/29/2023

• MCA 151 / NAPP2235377174

• Sampling Date: 3/28/2023

Thank you,



Kalei Jennings

Senior Scientist 817-683-2503

Ensolum, LLC

From: Enviro, OCD, EMNRD

To: Kalei Jennings

Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD

Subject: RE: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 5/15/2023)

Date: Friday, May 12, 2023 3:08:14 PM

Attachments: <u>image005.jpg</u>

image006.png image007.png image008.png image009.png

[**EXTERNAL EMAIL**]

Kalei,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon • Environmental Specialist

Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

http://www.emnrd.nm.gov



From: Kalei Jennings <kjennings@ensolum.com>

Sent: Friday, May 12, 2023 2:47 PM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 5/15/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Permian, LLC (Maverick) plans to complete sampling activities at the following site the week of May 15, 2023.

EVGSAU 2418-001 / NAPP2231954757

• Sampling Date: 5/17/2023 & 5/18/2023

EVGSAU 2963-001/ NAPP2235371799

• Sampling Date: 5/17/2023 & 5/18/2023

- MCA 400 / NAPP2305455050
 - Sampling Date: 5/17/2023
- EVGSAU 2437-001/ NAPP2303273838
 - Sampling Date: 5/17/2023 & 5/18/2023

Thank you,



Kalei Jennings Senior Scientist 817-683-2503 Ensolum, LLC



APPENDIX F

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NAPP2305455050
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Maverick Permian, LLC					OGRID: 331199				
Contact Name	Contact Name: Bryce Wagoner					Contact Telephone: 928-241-1862			
Contact email:	Contact email: Bryce.Wagoner@mavresources.com					(assigned by OCD) NAPP2305455050			
Contact mailin 1410 NW Cou		Hobbs, NM 88240							
			Location	of R	elease So	ource			
Latitude 32.80	5161		(NAD 83 in dec	cimal de	Longitude - grees to 5 decin	-103.760712			
Site Name MC	CA 400				Site Type				
Date Release D	Discovered 1	February 13, 2023	}		API# (if app	plicable) 30-025-38973			
Unit Letter	Section	Township	Range		Coun	nty			
L	27	17S	32E	Le	a				
		Federal Tr	Nature and	d Vo	lume of 1	Release c justification for the volumes provided below)			
Crude Oil		Volume Release	d (bbls) 3 bbls			Volume Recovered (bbls) 0.5 bbls			
Produced V	Vater	Volume Release	d (bbls) 12.6 bbls			Volume Recovered (bbls) 2 bbls			
		Is the concentrat	ion of dissolved c >10,000 mg/l?	chloride	e in the	☐ Yes ☒ No			
Condensate	e	Volume Release				Volume Recovered (bbls)			
Natural Ga	s	Volume Release	d (Mcf)			Volume Recovered (Mcf)			
Other (desc	cribe)	Volume/Weight	Released (provide)	Volume/Weight Recovered (provide units)				
	as caused by the location	and recovered ap				urred on and off pad. A vacuum truck was g fluids. The source of the release has been stopped			

Received by OCD: 7/13/2023 8:47:56 PM Form C-141 State of New Mexico Page 2 Oil Conservation Division

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Incident ID	NAPP2305455050
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
☐ Yes ⊠ No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
	Initial Response
The responsible p	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
☐ The source of the rele	ease has been stopped.
☐ The impacted area ha	s been secured to protect human health and the environment.
Released materials ha	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain why:
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are public health or the environment failed to adequately investigation	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have atteand remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name:Bryce	Wagoner Title:Permian HSE Specialist II
Signature: My My	Date:
	ner@mavresources.com Telephone:928-241-1862
OCD Only	
Received by:	Date:

NAPP2305455050

	Pooled Fluids on the Surface									
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries *edges of pool where depth is 0. don't count shared boundaries	Oil-Water Ratio (%)	Pooled Area (ft ²)	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	40.0	75.0	1.0	4.0	0.20	3000.0	0.0	11.1	2.23	8.90
Rectangle B					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Total Volume (bbls): 11.13 2.23 8.90								8.90	

				Sul	bsurface Fluids	3				
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) *10% in consolidated sediments after rain to 50% in sand with no precipitation	Oil-Water Ratio (%)	Area (ft²)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	40.0	75.0	1.0	0.1	0.20	3000.0	44.5	4.5	0.89	3.6
Rectangle B						0.0	0.0	0.0	0.00	0.0
Rectangle C						0.0	0.0	0.0	0.00	0.0
Rectangle D						0.0	0.0	0.0	0.00	0.0
Rectangle E						0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J					_	0.0	0.0	0.0	0.00	0.0
						Total Vol	ume (bbls):	4.45	0.89	3.56

TOTAL RELEASE VOLUME (bbls): 15.6

ate of New Mexico

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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>>100</u> (ft bgs)					
Did this release impact groundwater or surface water?	☐ Yes ⊠ No					
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No					
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No					
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No					
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No					
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No					
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No					
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No					
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No					
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No					
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No					
Did the release impact areas not on an exploration, development, production, or storage site?	X Yes No					
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.						
Characterization Report Checklist: Each of the following items must be included in the report.						
 ✓ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wel ✓ Field data ✓ Data table of soil contaminant concentration data ✓ Depth to water determination 	ls.					

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.

Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release

Photographs including date and GIS information

□ Laboratory data including chain of custody

Boring or excavation logs

Topographic/Aerial maps

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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:
email:Bryce.Wagoner@mavresources.com Telephone: _928-241-1862
OCD Only
Received by: Shelly Wells Date: _7/14/2023

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)	2
☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)	
□ Description of remediation activities	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rule and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name:Bryce Wagoner Title: HSE Permian Specialist II Signature: Date: Telephone: 928.241.1862	S
email:Bryce.Wagoner@mavresources.com Telephone:928-241-1862	
OCD Only	
Received by: Shelly Wells Date: 7/14/2023	
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate at remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.	
Closure Approved by: Nelson Velez Date: 10/04/2023	
Closure Approved by: Nelson Velez Printed Name: Nelson Velez Date: 10/04/2023 Title: Environmental Specialist – Adv	

Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling operations.

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 240133

CONDITIONS

Operator:	OGRID:
Maverick Permian LLC	331199
1000 Main Street, Suite 2900	Action Number:
Houston, TX 77002	240133
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created	Condition	Condition
Ву		Date
nvelez	Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling operations.	10/4/2023