

Incident ID	NAPP2229033410
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Charles Beauvais

Title: Senior Environmental Engineer

Signature: Charles R. Beauvais

Date: 2/27/2023

email: Charles.R.Beauvais@conocophillips.com

Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon

Date: 02/28/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 6/29/2023

Printed Name: Robert Hamlet

Title: Environmental Specialist - Advanced



February 27, 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
Triste Draw 5 Federal 001H
Incident Number NAPP2229033410
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Triste Draw 5 Federal 001H (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address waste-containing soil resulting from a release of produced water onto an adjacent right-of-way (ROW) to the Site. Based on field observations, excavation activities, and laboratory analytical results from the soil sampling events, COG is submitting this *Closure Request*, describing remediation that has occurred and requesting no further action for Incident Number NAPP2229033410.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit A, Section 12, Township 24 South, Range 31 East, in Eddy County, New Mexico (32.238333°, -103.723333°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On October 5, 2022, corrosion of a salt water disposal (SWD) pipeline resulted in the release of approximately 5.84 barrels (bbls) of produced water onto the pipeline ROW. No free-standing fluids were recovered. COG reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) on October 5, 2022 and submitted a Release Notification Form C-141 (Form C-141) on October 17, 2022. The release was assigned Incident Number NAPP2229033410.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-04672 POD 1, located approximately 0.5 miles northwest of the Site. The groundwater well has a reported depth to groundwater, measured in September 2022, greater than 110 feet bgs. Ground surface elevation at the

groundwater well location is 3,527 feet above mean sea level (amsl), which is approximately 13 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 7,089 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 I Closure Criteria (Closure Criteria) apply:

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

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On October 21, 2022 and December 12, 2022, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven preliminary assessment soil samples (SS01 through SS07) were collected within and around the release extent, as defined by observed surficial soil staining, at a depth of 0.2 feet bgs, to assess the lateral extent of the release. The preliminary 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 preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. A photographic log is included in Appendix B.

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

Laboratory analytical results for preliminary soil samples SS01 through SS03 indicated TPH and/or chloride concentrations were in compliance with the Site Closure Criteria; however, the COC concentrations did exceed the reclamation requirement. Laboratory analytical results for preliminary soil samples SS04 through SS07 indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

Based on visible staining in the release area and laboratory analytical results for the preliminary soil samples, excavation of waste-containing soil appeared warranted.

EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS

Between December 12, 2022, and January 4, 2023, Ensolum personnel were at the Site to oversee excavation activities. Impacted soil was excavated as indicated by visible staining and laboratory analytical results for the preliminary soil samples SS01 through SS03. Excavation activities were performed using a backhoe, hydrovac, and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride.

Following removal of impacted soil, 5-point composite excavation confirmation soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The excavation confirmation samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 through FS04 were collected from the floor of the excavation at an approximate depth of 4 feet bgs. Confirmation soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. The excavation confirmation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3. Photographic documentation of the excavation is included in Appendix B.

Laboratory analytical results for excavation floor samples FS01 through FS04 and sidewall sample SW02 indicated all COC concentrations were compliant with the applicable Closure Criteria. Laboratory analytical results for excavation sidewall sample SW01 indicated the chloride concentration was compliant with the Site Closure Criteria, but exceeded the reclamation requirement. Additional soil was removed from the area associated with soil sample SW01 and another 5-point composite excavation confirmation soil sample (SW03) was collected following the same procedure described above.

Laboratory analytical results for soil sample SW03 indicated all COC concentrations were compliant with Closure Criteria and/or the reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

The final excavation area measured approximately 600 square feet in areal size. A total of approximately 89 cubic yards of waste-containing soil was removed, transported and properly disposed of at R360 Environmental Solutions in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the October 5, 2022, release of produced water. Laboratory analytical results for the final excavation confirmation soil samples indicated concentrations of all COCs were compliant with the Site Closure Criteria and reclamation requirement. Based on the laboratory analytical results, no further remediation appears warranted. COG will backfill the excavation with material purchased locally, recontour the Site to match pre-existing site conditions and re-seed the disturbed area with the appropriate BLM seed mixture during the next possible growing season for optimal vegetation growth.

Excavation of waste-containing soil has mitigated adverse conditions at this Site. Depth to water has been estimated to be greater than 100 feet bgs and no sensitive receptors were identified near the release extent. COG believes the remedial actions are protective of human health, the environment, and

COG Operating, LLC
Closure Request
Triste Draw 5 Federal 001H

February 27, 2023

Page 4

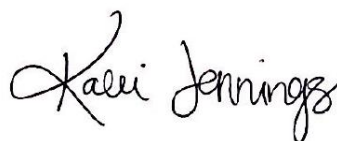
groundwater. As such, COG respectfully requests closure for Incident Number NAPP2229033410. The Final C-141 is included in Appendix E.

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

Sincerely,
Ensolum, LLC



Hadlie Green
Staff Geologist



Kalei Jennings
Senior Scientist

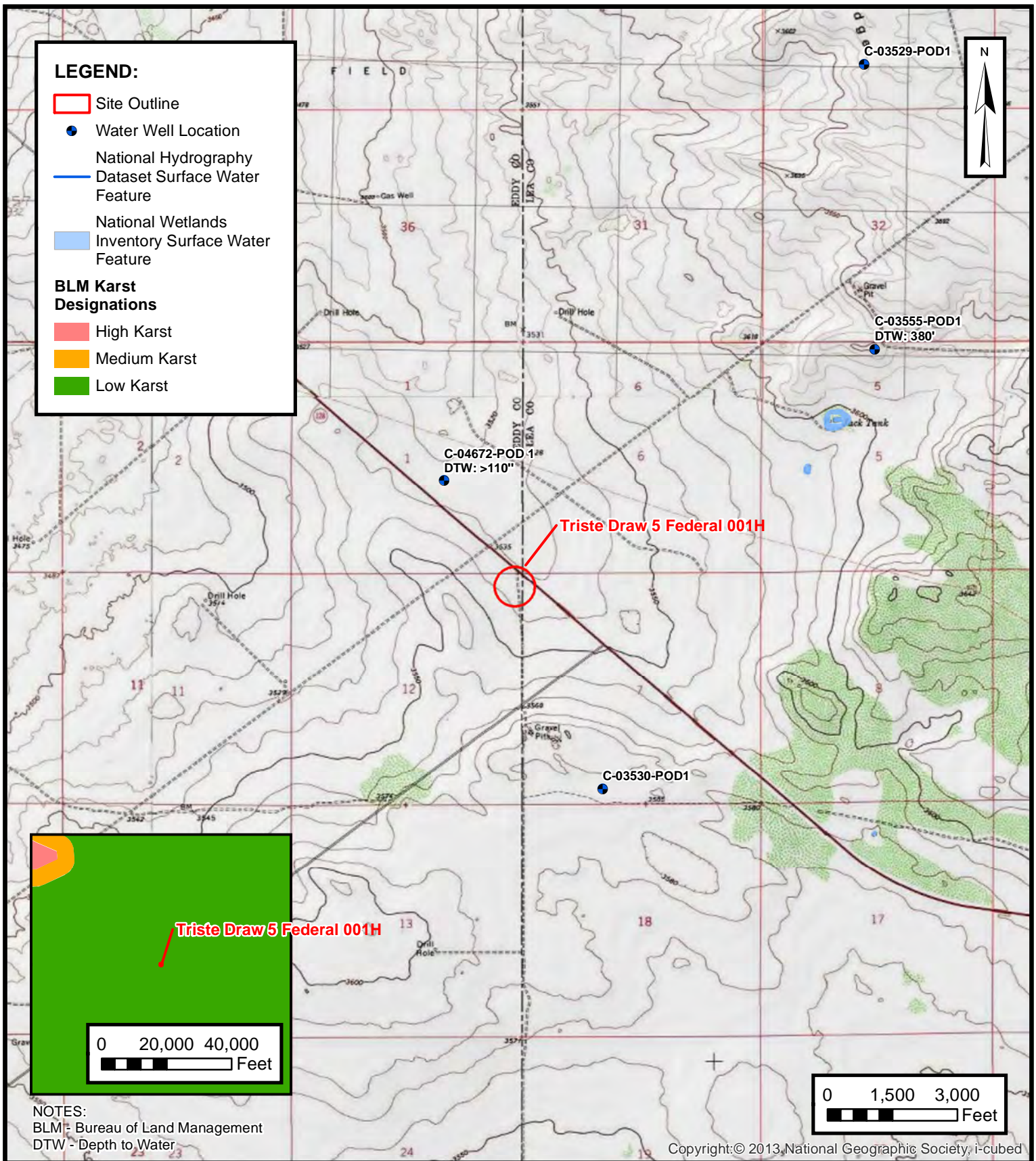
cc: Charles Beauvais, COG Operating, LLC
Bureau of Land Management

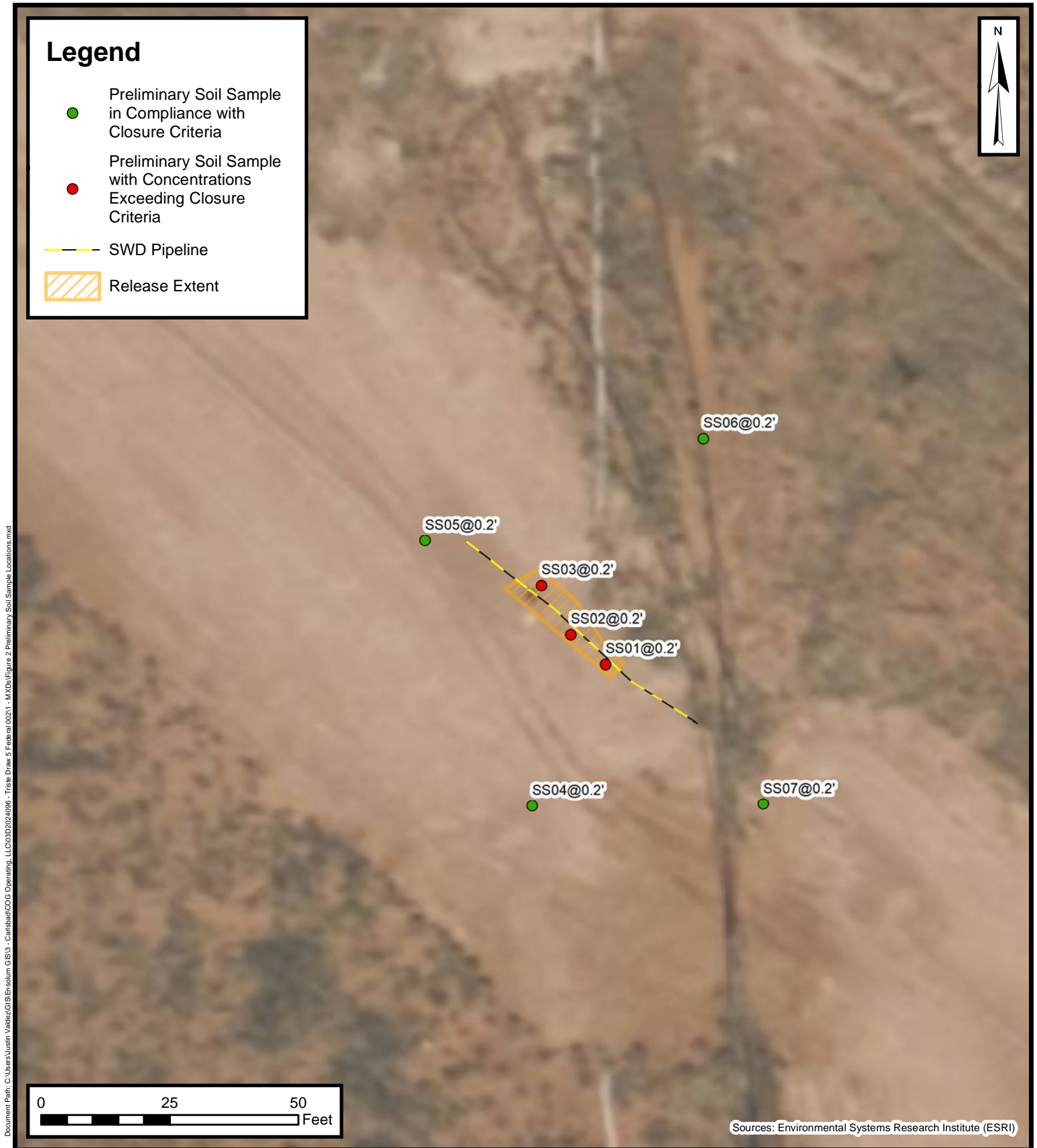
Appendices:

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



FIGURES

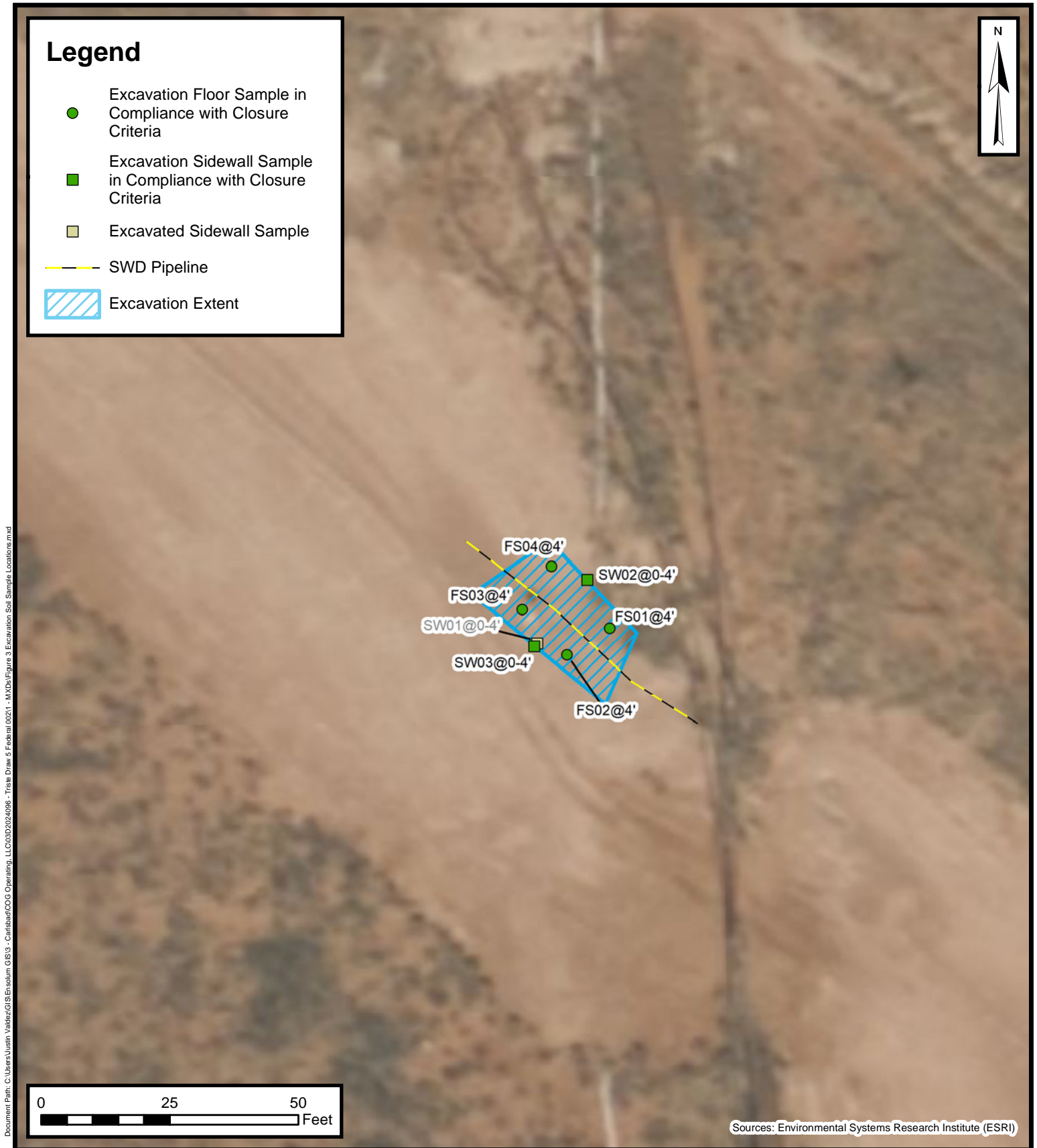




Preliminary Soil Sample Locations

COG Operating, LLC
 Triste Draw 5 Federal 002
 Incident Number: NAPP2229033410
 Unit A, Sec 12, T24S, R31E
 Eddy County, New Mexico

FIGURE
 2



Excavation Soil Sample Locations

COG Operating, LLC
Triste Draw 5 Federal 002
Incident Number NAPP2229033410
Unit A, Sec 12, T24S, R31E
Eddy County, New Mexico

FIGURE
3



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Triste Draw 5 Federal 001H
 COG Operating, LLC
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Preliminary Assessment Soil Samples										
SS01	10/21/2022	0.2	<0.00201	<0.00402	<49.9	69.3	<49.9	69.3	69.3	4,390*
SS02	10/21/2022	0.2	<0.00198	<0.00396	<49.9	169	<49.9	169	169	12,800*
SS03	10/21/2022	0.2	0.00316	0.00877	<49.9	723	<49.9	723	723	7,260*
SS04	10/21/2022	0.2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	14.6*
SS05	10/21/2022	0.2	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	42.9*
SS06	12/12/2022	0.2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05*
SS07	12/12/2022	0.2	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	<4.97*
Excavation Floor Soil Samples										
FS01	12/14/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	18,500
FS02	12/14/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	13,000
FS03	12/14/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	5,640
FS04	12/14/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	9,090
Excavation Sidewall Soil Samples										
SW01	12/13/2022	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	717*
SW02	12/20/2022	0 - 4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	32.1*
SW03	01/04/2023	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	413*

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.*Gray* text represents samples that have been excavated

* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard for chloride in the top 4 feet is 600 mg/kg.



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) C-04672 POD 1		WELL TAG ID NO.		OSE FILE NO(S). C-04672			
	WELL OWNER NAME(S) OXY US INC				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS PO BOX 4294				CITY HOUSTON	STATE TX	ZIP 77210	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 14	SECONDS 41.51	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE -103	43	43.43	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE PROXIMITY 31								
2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1184		NAME OF LICENSED DRILLER RUSSELL SOUTHERLAND			NAME OF WELL DRILLING COMPANY WEST TEXAS WATER WELL SERVICE		
	DRILLING STARTED 09/01/2022		DRILLING ENDED 09/01/2022		DEPTH OF COMPLETED WELL (FT) 110	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
				NO CASING IN HOLE				
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
				N/A				

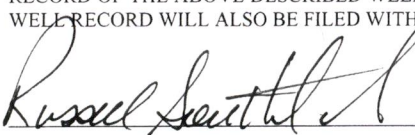
FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4672	POD NO. 1	TRN NO. 134614
LOCATION 245.31E.01 214	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	10		RED SAND, TOPSOIL	Y ✓ N	
	10	20		CALICHIE	Y ✓ N	
	20	37		RED SANDY CLAY	Y ✓ N	
	37	40		SANDSTONE	Y ✓ N	
	40	50		LIGHT RED SANDY CLAY	Y ✓ N	
	50	78		RED CLAY W/ SANDSTONE	Y ✓ N	
	78	88		RED CLAY	Y ✓ N	
	88	91		SANDSTONE	Y ✓ N	
	91	93		RED CLAY	Y ✓ N	
	93	100		SANDSTONE	Y ✓ N	
	100	110		RED SANDSTONE	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input checked="" type="checkbox"/> OTHER – SPECIFY: DRY HOLE					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	

5. TEST; RIG SUPERVISION	WELL TEST	
	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.	
MISCELLANEOUS INFORMATION:		
<div style="text-align: right;">05E DIT SEP 26 2022 PM3:23</div>		
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: RUSSELL SOUTHERLAND		

6. SIGNATURE
BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.
<div style="display: flex; justify-content: space-between;"> <div>  SIGNATURE OF DRILLER / PRINT SIGNEE NAME </div> <div> RUSSELL SOUTHERLAND DATE </div> </div>



Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 734614
File Nbr: C 04672
Well File Nbr: C 04672 POD 1

Oct. 04, 2022

BEAUX JENNINGS
ENSOLUM LLC
601 N. MARIENFELD ST SUITE 400
MIDLAND, TX 79701

Greetings:

The above numbered permit was issued in your name on 09/22/2022.

The Well Record was received in this office on 09/26/2022, stating that it had been completed on 09/01/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 09/22/2023.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in cursive script that reads "Vanessa Clements".

Vanessa Clements
(575) 622-6521

drywell

Mike A. Hamman, P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 734614
File Nbr: C 04672
Well File Nbr: C 04672 POD 1

Oct. 04, 2022

WADE DITTRICH
OXY USA INC.
P.O. BOX 4294
HOUSTON, TX 77210

Greetings:

The above numbered permit was issued in your name on 09/22/2022.

The Well Record was received in this office on 09/26/2022, stating that it had been completed on 09/01/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 09/22/2023.

If you have any questions, please feel free to contact us.

Sincerely,


Vanessa Clements
(575) 622-6521


drywell



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	Tw	Rng	X	Y
NA	C 03555 POD1	2	2	1	05	24S	32E	622748	3569233 

Driller License: 1654 **Driller Company:** NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC

Driller Name:

Drill Start Date: 10/20/2013 **Drill Finish Date:** 10/21/2013 **Plug Date:**

Log File Date: 11/07/2013 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 5 GPM

Casing Size: 6.00 **Depth Well:** 600 feet **Depth Water:** 380 feet

Water Bearing Stratifications:	Top	Bottom	Description
	475	550	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	460	520

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.

2/21/23 3:00 PM

POINT OF DIVERSION SUMMARY



APPENDIX B

Photographic Log



Photographic Log

COG Operating, LLC

Triste Draw 5 Federal 001H

Incident Number NAPP2229033410



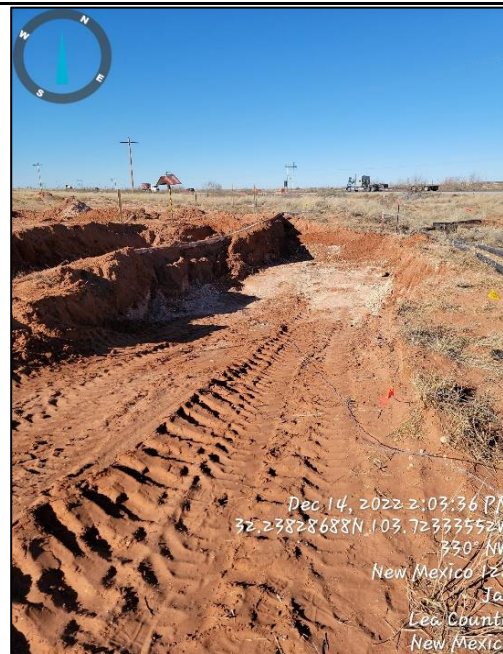
Photograph: 1 Date: 10/5/2022
Description: Soil staining in release footprint
View: Northwest



Photograph: 2 Date: 10/21/2022
Description: Soil staining in release footprint
View: Southwest



Photograph: 3 Date: 12/14/2022
Description: Ongoing excavation activities
View: Northwest



Photograph: 4 Date: 12/14/2022
Description: Ongoing excavation activities
View: Northwest



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3268-1

Laboratory Sample Delivery Group: 03D2024096

Client Project/Site: Triste Draw 5 Federal #2

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Hadlie Green

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

11/1/2022 1:12:58 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Laboratory Job ID: 890-3268-1
SDG: 03D2024096

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Definitions/Glossary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%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
SQL	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: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Job ID: 890-3268-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-3268-1

Receipt

The samples were received on 10/21/2022 3:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3268-1), SS02 (890-3268-2) and SS03 (890-3268-3).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Client Sample ID: SS01

Lab Sample ID: 890-3268-1

Date Collected: 10/21/22 08:55

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/27/22 15:09	10/31/22 22:29	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/27/22 15:09	10/31/22 22:29	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/27/22 15:09	10/31/22 22:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/27/22 15:09	10/31/22 22:29	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/27/22 15:09	10/31/22 22:29	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/27/22 15:09	10/31/22 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	10/27/22 15:09	10/31/22 22:29	1
1,4-Difluorobenzene (Surr)	99		70 - 130	10/27/22 15:09	10/31/22 22:29	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	69.3		49.9	mg/Kg			10/28/22 09:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/26/22 08:47	10/28/22 00:53	1
Diesel Range Organics (Over C10-C28)	69.3		49.9	mg/Kg		10/26/22 08:47	10/28/22 00:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/26/22 08:47	10/28/22 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	10/26/22 08:47	10/28/22 00:53	1
o-Terphenyl	103		70 - 130	10/26/22 08:47	10/28/22 00:53	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4390		24.9	mg/Kg			10/27/22 03:35	5

Client Sample ID: SS02

Lab Sample ID: 890-3268-2

Date Collected: 10/21/22 09:00

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 22:50	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 22:50	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 22:50	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		10/27/22 15:09	10/31/22 22:50	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 22:50	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/27/22 15:09	10/31/22 22:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	10/27/22 15:09	10/31/22 22:50	1

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Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Client Sample ID: SS02

Lab Sample ID: 890-3268-2

Date Collected: 10/21/22 09:00

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	10/27/22 15:09	10/31/22 22:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	169		49.9	mg/Kg			10/28/22 09:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/26/22 08:47	10/28/22 01:14	1
Diesel Range Organics (Over C10-C28)	169		49.9	mg/Kg		10/26/22 08:47	10/28/22 01:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/26/22 08:47	10/28/22 01:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			10/26/22 08:47	10/28/22 01:14	1
o-Terphenyl	104		70 - 130			10/26/22 08:47	10/28/22 01:14	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12800		99.8	mg/Kg			10/27/22 03:40	20

Client Sample ID: SS03

Lab Sample ID: 890-3268-3

Date Collected: 10/21/22 09:10

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00316		0.00199	mg/Kg		10/27/22 15:09	10/31/22 23:10	1
Toluene	0.00561		0.00199	mg/Kg		10/27/22 15:09	10/31/22 23:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/27/22 15:09	10/31/22 23:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/27/22 15:09	10/31/22 23:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/27/22 15:09	10/31/22 23:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/27/22 15:09	10/31/22 23:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	10/27/22 15:09	10/31/22 23:10	1
1,4-Difluorobenzene (Surr)	101		70 - 130	10/27/22 15:09	10/31/22 23:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00877		0.00398	mg/Kg			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	723		49.9	mg/Kg			10/28/22 09:46	1

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Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Client Sample ID: SS03

Lab Sample ID: 890-3268-3

Date Collected: 10/21/22 09:10

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/26/22 08:47	10/28/22 07:00	1
Diesel Range Organics (Over C10-C28)	723		49.9	mg/Kg		10/26/22 08:47	10/28/22 07:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/26/22 08:47	10/28/22 07:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			10/26/22 08:47	10/28/22 07:00	1
o-Terphenyl	78		70 - 130			10/26/22 08:47	10/28/22 07:00	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7260		49.7	mg/Kg			10/27/22 03:45	10

Surrogate Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3268-1	SS01	92	99
890-3268-1 MS	SS01	99	107
890-3268-1 MSD	SS01	108	98
890-3268-2	SS02	101	101
890-3268-3	SS03	95	101
LCS 880-38031/1-A	Lab Control Sample	93	107
LCSD 880-38031/2-A	Lab Control Sample Dup	100	110
MB 880-38031/5-A	Method Blank	82	96
MB 880-38226/5-A	Method Blank	83	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3267-A-21-E MS	Matrix Spike	103	82
890-3267-A-21-F MSD	Matrix Spike Duplicate	78	71
890-3268-1	SS01	108	103
890-3268-2	SS02	111	104
890-3268-3	SS03	81	78
LCS 880-37863/2-A	Lab Control Sample	124	104
LCSD 880-37863/3-A	Lab Control Sample Dup	120	95
MB 880-37863/1-A	Method Blank	129	128
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38031/5-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38031

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/27/22 15:09	10/31/22 22:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	10/27/22 15:09	10/31/22 22:08	1
1,4-Difluorobenzene (Surr)	96		70 - 130	10/27/22 15:09	10/31/22 22:08	1

Lab Sample ID: LCS 880-38031/1-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1082		mg/Kg		108	70 - 130
Toluene	0.100	0.09302		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09102		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1840		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09049		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-38031/2-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1111		mg/Kg		111	70 - 130	3	35
Toluene	0.100	0.09423		mg/Kg		94	70 - 130	1	35
Ethylbenzene	0.100	0.09258		mg/Kg		93	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1885		mg/Kg		94	70 - 130	2	35
o-Xylene	0.100	0.09300		mg/Kg		93	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-3268-1 MS

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0990	0.09422		mg/Kg		95	70 - 130
Toluene	<0.00201	U	0.0990	0.07942		mg/Kg		80	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

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

Lab Sample ID: 890-3268-1 MS

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0990	0.07601		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1531		mg/Kg		77	70 - 130
o-Xylene	<0.00201	U	0.0990	0.07420		mg/Kg		75	70 - 130

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

Lab Sample ID: 890-3268-1 MSD

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08003		mg/Kg		81	70 - 130	16	35
Toluene	<0.00201	U	0.0990	0.07421		mg/Kg		74	70 - 130	7	35
Ethylbenzene	<0.00201	U	0.0990	0.08163		mg/Kg		82	70 - 130	7	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1632		mg/Kg		82	70 - 130	6	35
o-Xylene	<0.00201	U	0.0990	0.07909		mg/Kg		80	70 - 130	6	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-38226/5-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38226

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/31/22 09:37	10/31/22 11:33	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	10/31/22 09:37	10/31/22 11:33	1
1,4-Difluorobenzene (Surr)	90		70 - 130	10/31/22 09:37	10/31/22 11:33	1

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

Lab Sample ID: MB 880-37863/1-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37863

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/27/22 22:01	1

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

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

Lab Sample ID: MB 880-37863/1-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37863

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/27/22 22:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/27/22 22:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130			10/26/22 08:47	10/27/22 22:01	1
o-Terphenyl	128		70 - 130			10/26/22 08:47	10/27/22 22:01	1

Lab Sample ID: LCS 880-37863/2-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	810.3		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	944.6		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	124		70 - 130				
o-Terphenyl	104		70 - 130				

Lab Sample ID: LCSD 880-37863/3-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	806.8		mg/Kg		81	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	872.7		mg/Kg		87	70 - 130	8	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	120		70 - 130						
o-Terphenyl	95		70 - 130						

Lab Sample ID: 890-3267-A-21-E MS

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	828.2		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	998	996.7		mg/Kg		100	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	103		70 - 130						
o-Terphenyl	82		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

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

Lab Sample ID: 890-3267-A-21-F MSD

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	790.4		mg/Kg		79	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	878.3		mg/Kg		88	70 - 130	13	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	78		70 - 130								
o-Terphenyl	71		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37580/1-A

Matrix: Solid

Analysis Batch: 37848

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/27/22 01:23	1

Lab Sample ID: LCS 880-37580/2-A

Matrix: Solid

Analysis Batch: 37848

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	265.5		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-37580/3-A

Matrix: Solid

Analysis Batch: 37848

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	264.7		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3266-A-1-B MS

Matrix: Solid

Analysis Batch: 37848

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1270		1250	2611		mg/Kg		108	90 - 110

Lab Sample ID: 890-3266-A-1-C MSD

Matrix: Solid

Analysis Batch: 37848

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1270		1250	2623		mg/Kg		109	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

GC VOA

Prep Batch: 38031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Total/NA	Solid	5035	
890-3268-2	SS02	Total/NA	Solid	5035	
890-3268-3	SS03	Total/NA	Solid	5035	
MB 880-38031/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38031/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38031/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3268-1 MS	SS01	Total/NA	Solid	5035	
890-3268-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 38213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Total/NA	Solid	8021B	38031
890-3268-2	SS02	Total/NA	Solid	8021B	38031
890-3268-3	SS03	Total/NA	Solid	8021B	38031
MB 880-38031/5-A	Method Blank	Total/NA	Solid	8021B	38031
MB 880-38226/5-A	Method Blank	Total/NA	Solid	8021B	38226
LCS 880-38031/1-A	Lab Control Sample	Total/NA	Solid	8021B	38031
LCSD 880-38031/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38031
890-3268-1 MS	SS01	Total/NA	Solid	8021B	38031
890-3268-1 MSD	SS01	Total/NA	Solid	8021B	38031

Prep Batch: 38226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38226/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Total/NA	Solid	Total BTEX	
890-3268-2	SS02	Total/NA	Solid	Total BTEX	
890-3268-3	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 37863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Total/NA	Solid	8015NM Prep	
890-3268-2	SS02	Total/NA	Solid	8015NM Prep	
890-3268-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-37863/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37863/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3267-A-21-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3267-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Total/NA	Solid	8015B NM	37863
890-3268-2	SS02	Total/NA	Solid	8015B NM	37863
890-3268-3	SS03	Total/NA	Solid	8015B NM	37863
MB 880-37863/1-A	Method Blank	Total/NA	Solid	8015B NM	37863
LCS 880-37863/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37863

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

GC Semi VOA (Continued)

Analysis Batch: 37970 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-37863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37863
890-3267-A-21-E MS	Matrix Spike	Total/NA	Solid	8015B NM	37863
890-3267-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37863

Analysis Batch: 38077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Total/NA	Solid	8015 NM	
890-3268-2	SS02	Total/NA	Solid	8015 NM	
890-3268-3	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Soluble	Solid	DI Leach	
890-3268-2	SS02	Soluble	Solid	DI Leach	
890-3268-3	SS03	Soluble	Solid	DI Leach	
MB 880-37580/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37580/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37580/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3266-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3266-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 37848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3268-1	SS01	Soluble	Solid	300.0	37580
890-3268-2	SS02	Soluble	Solid	300.0	37580
890-3268-3	SS03	Soluble	Solid	300.0	37580
MB 880-37580/1-A	Method Blank	Soluble	Solid	300.0	37580
LCS 880-37580/2-A	Lab Control Sample	Soluble	Solid	300.0	37580
LCSD 880-37580/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37580
890-3266-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	37580
890-3266-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37580

Lab Chronicle

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Client Sample ID: SS01

Lab Sample ID: 890-3268-1

Date Collected: 10/21/22 08:55

Matrix: Solid

Date Received: 10/21/22 15:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	10/31/22 22:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38404	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38077	10/28/22 09:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	37863	10/26/22 08:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37970	10/28/22 00:53	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	37580	10/25/22 11:57	SMC	EET MID
Soluble	Analysis	300.0		5			37848	10/27/22 03:35	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-3268-2

Date Collected: 10/21/22 09:00

Matrix: Solid

Date Received: 10/21/22 15:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	10/31/22 22:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38404	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38077	10/28/22 09:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	37863	10/26/22 08:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37970	10/28/22 01:14	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	37580	10/25/22 11:57	SMC	EET MID
Soluble	Analysis	300.0		20			37848	10/27/22 03:40	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-3268-3

Date Collected: 10/21/22 09:10

Matrix: Solid

Date Received: 10/21/22 15:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	10/31/22 23:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38404	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38077	10/28/22 09:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	37863	10/26/22 08:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37970	10/28/22 07:00	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	37580	10/25/22 11:57	SMC	EET MID
Soluble	Analysis	300.0		10			37848	10/27/22 03:45	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3268-1
SDG: 03D2024096

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3268-1	SS01	Solid	10/21/22 08:55	10/21/22 15:27	0.2'
890-3268-2	SS02	Solid	10/21/22 09:00	10/21/22 15:27	0.2'
890-3268-3	SS03	Solid	10/21/22 09:10	10/21/22 15:27	0.2'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
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


Chain of Custody

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Aaron	Bill to: (if different)	Traki Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 Nat'l Parks Hwy
City, State ZIP:	Portland, MN 55720	City, State ZIP:	Portland, MN, 55720
Phone:	952-557-8895	Email:	traki@ensolum.com

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

Project Name:		Trish Davis Siderney #2		Turn Around		9	
Project Number:		03D2024096		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush			
Project Location:		32.75833 -108.12333		Due Date:			
Sampler's Name:		Juliana Falconiata		TAT starts the day received by the lab if received by 4:30pm			
PO #:							
SAMPLE RECEIPT							
Samples Received Intact:		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Correction Factor:		TAN-005	
Sample Custody Seals:		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Temperature Reading:		3.4	
Total Containers:				Corrected Temperature:		3.2	
Parameters				Pres. Code			
TEX							
PH							
Fluorides							
ANALYSIS REQUEST							
 890-3268 Chain of Custody							
Preservative Codes							
None: NO		DI Water: H ₂ O		Cool: Cool		MeOH: Me	
HCL: HCl		HNO ₃ : HN		H ₂ SO ₄ : H ₂		NaOH: Na	
H ₃ PO ₄ : HP		NaHSO ₄ : NABIS		Na ₂ S ₂ O ₅ : NaSO ₃		Zn Acetate+NaOH: Zn	
NaOH+Ascorbic Acid: SAPC							

[illegible]

Notice: Signature of this document and a relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the costs 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 Xeno. A minimum charge of \$35.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously, negated or modified.

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed				TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471	
<p>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.</p>							
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		
<i>Jalmonpa</i>	<i>Swanda Stuf</i>	10/31/22 15:37					

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3268-1

SDG Number: 03D2024096

Login Number: 3268

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3268-1

SDG Number: 03D2024096

Login Number: 3268

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 10/25/22 11:05 AM

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



Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3269-1

Laboratory Sample Delivery Group: 03D2024096

Client Project/Site: Triste Draw 5 Federal #2

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Hadlie Green

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

11/1/2022 1:12:58 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Laboratory Job ID: 890-3269-1
SDG: 03D2024096

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Definitions/Glossary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%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
SQL	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: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Job ID: 890-3269-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-3269-1

Receipt

The samples were received on 10/21/2022 3:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS04 (890-3269-1) and SS05 (890-3269-2).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Client Sample ID: SS04

Lab Sample ID: 890-3269-1

Date Collected: 10/21/22 09:15

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 23:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 23:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 23:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/27/22 15:09	10/31/22 23:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 23:31	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/27/22 15:09	10/31/22 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	10/27/22 15:09	10/31/22 23:31	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/27/22 15:09	10/31/22 23:31	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/28/22 09:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/28/22 01:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/28/22 01:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/28/22 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	10/26/22 08:47	10/28/22 01:35	1
o-Terphenyl	94		70 - 130	10/26/22 08:47	10/28/22 01:35	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.6		5.00	mg/Kg			10/26/22 19:31	1

Client Sample ID: SS05

Lab Sample ID: 890-3269-2

Date Collected: 10/21/22 09:20

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 23:51	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 23:51	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 23:51	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		10/27/22 15:09	10/31/22 23:51	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/27/22 15:09	10/31/22 23:51	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		10/27/22 15:09	10/31/22 23:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	10/27/22 15:09	10/31/22 23:51	1

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Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Client Sample ID: SS05

Lab Sample ID: 890-3269-2

Date Collected: 10/21/22 09:20

Matrix: Solid

Date Received: 10/21/22 15:27

Sample Depth: 0.2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	77		70 - 130	10/27/22 15:09	10/31/22 23:51	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/28/22 09:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/28/22 01:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/28/22 01:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/28/22 01:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			10/26/22 08:47	10/28/22 01:57	1
o-Terphenyl	89		70 - 130			10/26/22 08:47	10/28/22 01:57	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.9		5.01	mg/Kg			10/26/22 19:39	1

Surrogate Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3268-A-1-C MS	Matrix Spike	99	107
890-3268-A-1-D MSD	Matrix Spike Duplicate	108	98
890-3269-1	SS04	97	94
890-3269-2	SS05	86	77
LCS 880-38031/1-A	Lab Control Sample	93	107
LCSD 880-38031/2-A	Lab Control Sample Dup	100	110
MB 880-38031/5-A	Method Blank	82	96
MB 880-38226/5-A	Method Blank	83	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3267-A-21-E MS	Matrix Spike	103	82
890-3267-A-21-F MSD	Matrix Spike Duplicate	78	71
890-3269-1	SS04	101	94
890-3269-2	SS05	93	89
LCS 880-37863/2-A	Lab Control Sample	124	104
LCSD 880-37863/3-A	Lab Control Sample Dup	120	95
MB 880-37863/1-A	Method Blank	129	128
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38031/5-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38031

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/27/22 15:09	10/31/22 22:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/27/22 15:09	10/31/22 22:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	10/27/22 15:09	10/31/22 22:08	1
1,4-Difluorobenzene (Surr)	96		70 - 130	10/27/22 15:09	10/31/22 22:08	1

Lab Sample ID: LCS 880-38031/1-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1082		mg/Kg		108	70 - 130
Toluene	0.100	0.09302		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09102		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1840		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09049		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-38031/2-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1111		mg/Kg		111	70 - 130	3	35
Toluene	0.100	0.09423		mg/Kg		94	70 - 130	1	35
Ethylbenzene	0.100	0.09258		mg/Kg		93	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1885		mg/Kg		94	70 - 130	2	35
o-Xylene	0.100	0.09300		mg/Kg		93	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-3268-A-1-C MS

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0990	0.09422		mg/Kg		95	70 - 130
Toluene	<0.00201	U	0.0990	0.07942		mg/Kg		80	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

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

Lab Sample ID: 890-3268-A-1-C MS

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0990	0.07601		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1531		mg/Kg		77	70 - 130
o-Xylene	<0.00201	U	0.0990	0.07420		mg/Kg		75	70 - 130

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

Lab Sample ID: 890-3268-A-1-D MSD

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 38031

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08003		mg/Kg		81	70 - 130	16	35
Toluene	<0.00201	U	0.0990	0.07421		mg/Kg		74	70 - 130	7	35
Ethylbenzene	<0.00201	U	0.0990	0.08163		mg/Kg		82	70 - 130	7	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1632		mg/Kg		82	70 - 130	6	35
o-Xylene	<0.00201	U	0.0990	0.07909		mg/Kg		80	70 - 130	6	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-38226/5-A

Matrix: Solid

Analysis Batch: 38213

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38226

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/31/22 09:37	10/31/22 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	10/31/22 09:37	10/31/22 11:33	1
1,4-Difluorobenzene (Surr)	90		70 - 130	10/31/22 09:37	10/31/22 11:33	1

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

Lab Sample ID: MB 880-37863/1-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37863

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/27/22 22:01	1

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

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

Lab Sample ID: MB 880-37863/1-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37863

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/27/22 22:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/26/22 08:47	10/27/22 22:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130			10/26/22 08:47	10/27/22 22:01	1
o-Terphenyl	128		70 - 130			10/26/22 08:47	10/27/22 22:01	1

Lab Sample ID: LCS 880-37863/2-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	810.3		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	944.6		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	124		70 - 130				
o-Terphenyl	104		70 - 130				

Lab Sample ID: LCSD 880-37863/3-A

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	806.8		mg/Kg		81	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	872.7		mg/Kg		87	70 - 130	8	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	120		70 - 130						
o-Terphenyl	95		70 - 130						

Lab Sample ID: 890-3267-A-21-E MS

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	828.2		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	998	996.7		mg/Kg		100	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	103		70 - 130						
o-Terphenyl	82		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

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

Lab Sample ID: 890-3267-A-21-F MSD

Matrix: Solid

Analysis Batch: 37970

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 37863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	790.4		mg/Kg		79	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	878.3		mg/Kg		88	70 - 130	13	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	78		70 - 130								
o-Terphenyl	71		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37786/1-A

Matrix: Solid

Analysis Batch: 37915

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/26/22 18:24	1

Lab Sample ID: LCS 880-37786/2-A

Matrix: Solid

Analysis Batch: 37915

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	252.5		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-37786/3-A

Matrix: Solid

Analysis Batch: 37915

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.8		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-3267-A-21-B MS

Matrix: Solid

Analysis Batch: 37915

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0		252	293.1		mg/Kg		105	90 - 110

Lab Sample ID: 890-3267-A-21-C MSD

Matrix: Solid

Analysis Batch: 37915

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	30.0		252	286.9		mg/Kg		102	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

GC VOA

Prep Batch: 38031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Total/NA	Solid	5035	
890-3269-2	SS05	Total/NA	Solid	5035	
MB 880-38031/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38031/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38031/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3268-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3268-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Total/NA	Solid	8021B	38031
890-3269-2	SS05	Total/NA	Solid	8021B	38031
MB 880-38031/5-A	Method Blank	Total/NA	Solid	8021B	38031
MB 880-38226/5-A	Method Blank	Total/NA	Solid	8021B	38226
LCS 880-38031/1-A	Lab Control Sample	Total/NA	Solid	8021B	38031
LCSD 880-38031/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38031
890-3268-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	38031
890-3268-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38031

Prep Batch: 38226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38226/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Total/NA	Solid	Total BTEX	
890-3269-2	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 37863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Total/NA	Solid	8015NM Prep	
890-3269-2	SS05	Total/NA	Solid	8015NM Prep	
MB 880-37863/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37863/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3267-A-21-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3267-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Total/NA	Solid	8015B NM	37863
890-3269-2	SS05	Total/NA	Solid	8015B NM	37863
MB 880-37863/1-A	Method Blank	Total/NA	Solid	8015B NM	37863
LCS 880-37863/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37863
LCSD 880-37863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37863
890-3267-A-21-E MS	Matrix Spike	Total/NA	Solid	8015B NM	37863
890-3267-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37863

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

GC Semi VOA

Analysis Batch: 38078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Total/NA	Solid	8015 NM	
890-3269-2	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Soluble	Solid	DI Leach	
890-3269-2	SS05	Soluble	Solid	DI Leach	
MB 880-37786/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37786/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37786/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3267-A-21-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3267-A-21-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 37915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3269-1	SS04	Soluble	Solid	300.0	37786
890-3269-2	SS05	Soluble	Solid	300.0	37786
MB 880-37786/1-A	Method Blank	Soluble	Solid	300.0	37786
LCS 880-37786/2-A	Lab Control Sample	Soluble	Solid	300.0	37786
LCSD 880-37786/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37786
890-3267-A-21-B MS	Matrix Spike	Soluble	Solid	300.0	37786
890-3267-A-21-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37786

Lab Chronicle

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Client Sample ID: SS04
Date Collected: 10/21/22 09:15
Date Received: 10/21/22 15:27

Lab Sample ID: 890-3269-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	10/31/22 23:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38405	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38078	10/28/22 09:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	37863	10/26/22 08:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37970	10/28/22 01:35	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	37786	10/25/22 10:39	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37915	10/26/22 19:31	CH	EET MID

Client Sample ID: SS05
Date Collected: 10/21/22 09:20
Date Received: 10/21/22 15:27

Lab Sample ID: 890-3269-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	38031	10/27/22 15:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	10/31/22 23:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38405	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38078	10/28/22 09:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	37863	10/26/22 08:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37970	10/28/22 01:57	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	37786	10/25/22 10:39	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37915	10/26/22 19:39	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3269-1
SDG: 03D2024096

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3269-1	SS04	Solid	10/21/22 09:15	10/21/22 15:27	0.2'
890-3269-2	SS05	Solid	10/21/22 09:20	10/21/22 15:27	0.2'

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Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3333
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Hodie Owen	Bill to: (if different)	hodie@ennings
Company Name:	Ansolum LLC	Company Name:	Ansolum LLC
Address:	8119 Nat'l Parts Hwy	Address:	8122 Nat'l Parts Hwy
City, State ZIP:	Garfield, NM, 88720	City, State ZIP:	Garfield, NM 88720
Phone:	432-557-8895	Email:	hodie@ennings.com

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

Project Name:	Ft. St. David's Federal #2			Turn Around
Project Number:	0819024096			<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush
Project Location:	B2.138833-108.723883			Due Date:
Sampler's Name:	Jullawo Takemater			TAT starts the day received by the lab, if received by 4:30pm
P.O. #:				
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	1100-005	
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor:		
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Temperature Reading:	3.4	
Total Containers:		Corrected Temperature:	3.2	
Parameters				
ANALYSIS REQUEST				
Preservative Codes				
None: NO	DI Water: H ₂ O	Cool: Cool	MeOH: Me	
HCL: HCl	HNO: H ₂ NO	H ₂ SO: H ₂	NaOH: Na	
H ₃ PO: HP				
NaHSO: NABIS				
Na ₂ S ₂ O ₃ : NaSO ₃				
Zn Acetate+NaOH: Zn				
NaOH+Ascorbic Acid: SACP				

[illegible]

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 SiO ₂ Na Sr Ti Sn U V Zn
TCLP/SPLP 6010 : 8RCRA	5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631/245.1/7470/7471

notice: Signature of this document constitutes a valid purchase order from client company to Eurofins Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xencro 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 Xencro. A minimum charge of \$35.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xencro, but not analyzed. These terms will be enforced unless previously negated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	10/12/22 1527			

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3269-1

SDG Number: 03D2024096

Login Number: 3269

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3269-1

SDG Number: 03D2024096

Login Number: 3269

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 10/25/22 11:05 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 12/23/2022 9:48:38 PM

JOB DESCRIPTION

Triste Draw 5 Federal #2
SDG NUMBER 03D2024096

JOB NUMBER

890-3627-1

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
12/23/2022 9:48:38 PM

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

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Laboratory Job ID: 890-3627-1
SDG: 03D2024096

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Definitions/Glossary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Qualifiers

GC VOA

Qualifier	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: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Job ID: 890-3627-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-3627-1****Receipt**

The samples were received on 12/12/2022 4:10 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 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS06 (890-3627-1) and SS07 (890-3627-2).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-41840 and analytical batch 880-42076 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS06 (890-3627-1). 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
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Client Sample ID: SS06

Lab Sample ID: 890-3627-1

Date Collected: 12/12/22 09:30

Matrix: Solid

Date Received: 12/12/22 16:10

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/22/22 09:35	12/23/22 12:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/22/22 09:35	12/23/22 12:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/22/22 09:35	12/23/22 12:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/22/22 09:35	12/23/22 12:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/22/22 09:35	12/23/22 12:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/22/22 09:35	12/23/22 12:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	12/22/22 09:35	12/23/22 12:42	1
1,4-Difluorobenzene (Surr)	104		70 - 130	12/22/22 09:35	12/23/22 12:42	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/23/22 17:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/19/22 15:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/14/22 14:33	12/17/22 20:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/14/22 14:33	12/17/22 20:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/22 14:33	12/17/22 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130	12/14/22 14:33	12/17/22 20:23	1
o-Terphenyl	126		70 - 130	12/14/22 14:33	12/17/22 20:23	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05	mg/Kg			12/20/22 10:16	1

Client Sample ID: SS07

Lab Sample ID: 890-3627-2

Date Collected: 12/12/22 09:35

Matrix: Solid

Date Received: 12/12/22 16:10

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 13:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 13:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 13:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/22/22 09:35	12/23/22 13:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 13:02	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/22/22 09:35	12/23/22 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	12/22/22 09:35	12/23/22 13:02	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Client Sample ID: SS07

Lab Sample ID: 890-3627-2

Date Collected: 12/12/22 09:35

Matrix: Solid

Date Received: 12/12/22 16:10

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	12/22/22 09:35	12/23/22 13:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			12/23/22 17:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			12/19/22 15:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/14/22 14:33	12/17/22 20:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/14/22 14:33	12/17/22 20:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/14/22 14:33	12/17/22 20:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			12/14/22 14:33	12/17/22 20:44	1
o-Terphenyl	123		70 - 130			12/14/22 14:33	12/17/22 20:44	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97	mg/Kg			12/20/22 10:40	1

Surrogate Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3627-1	SS06	91	104
890-3627-1 MS	SS06	91	110
890-3627-1 MSD	SS06	91	106
890-3627-2	SS07	93	104
LCS 880-42484/1-A	Lab Control Sample	90	107
LCSD 880-42484/2-A	Lab Control Sample Dup	90	103
MB 880-42368/101	Method Blank	82	105
MB 880-42484/5-A	Method Blank	84	103
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3624-A-1-C MS	Matrix Spike	119	92
890-3624-A-1-D MSD	Matrix Spike Duplicate	106	92
890-3627-1	SS06	133 S1+	126
890-3627-2	SS07	130	123
LCS 880-41840/2-A	Lab Control Sample	109	103
LCSD 880-41840/3-A	Lab Control Sample Dup	106	114
MB 880-41840/1-A	Method Blank	141 S1+	140 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42368/101

Matrix: Solid

Analysis Batch: 42368

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			12/23/22 00:36	1
Toluene	<0.00200	U	0.00200	mg/Kg			12/23/22 00:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			12/23/22 00:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			12/23/22 00:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			12/23/22 00:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			12/23/22 00:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130		12/23/22 00:36	1
1,4-Difluorobenzene (Surr)	105		70 - 130		12/23/22 00:36	1

Lab Sample ID: MB 880-42484/5-A

Matrix: Solid

Analysis Batch: 42368

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42484

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 12:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 12:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 12:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/22/22 09:35	12/23/22 12:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:35	12/23/22 12:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/22/22 09:35	12/23/22 12:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	12/22/22 09:35	12/23/22 12:13	1
1,4-Difluorobenzene (Surr)	103		70 - 130	12/22/22 09:35	12/23/22 12:13	1

Lab Sample ID: LCS 880-42484/1-A

Matrix: Solid

Analysis Batch: 42368

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42484

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1191		mg/Kg		119	70 - 130
Toluene	0.100	0.09639		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.08898		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1762		mg/Kg		88	70 - 130
o-Xylene	0.100	0.08496		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-42484/2-A

Matrix: Solid

Analysis Batch: 42368

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42484

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09906		mg/Kg		99	70 - 130	18	35

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

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

Lab Sample ID: LCSD 880-42484/2-A

Matrix: Solid

Analysis Batch: 42368

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42484

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08491		mg/Kg		85	70 - 130	13	35
Ethylbenzene	0.100	0.07818		mg/Kg		78	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.1552		mg/Kg		78	70 - 130	13	35
o-Xylene	0.100	0.07590		mg/Kg		76	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-3627-1 MS

Matrix: Solid

Analysis Batch: 42368

Client Sample ID: SS06

Prep Type: Total/NA

Prep Batch: 42484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.1081		mg/Kg		108	70 - 130
Toluene	<0.00199	U	0.100	0.08537		mg/Kg		85	70 - 130
Ethylbenzene	<0.00199	U	0.100	0.07765		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1523		mg/Kg		76	70 - 130
o-Xylene	<0.00199	U	0.100	0.07560		mg/Kg		75	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-3627-1 MSD

Matrix: Solid

Analysis Batch: 42368

Client Sample ID: SS06

Prep Type: Total/NA

Prep Batch: 42484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.1075		mg/Kg		109	70 - 130	1	35
Toluene	<0.00199	U	0.0990	0.08589		mg/Kg		87	70 - 130	1	35
Ethylbenzene	<0.00199	U	0.0990	0.07802		mg/Kg		79	70 - 130	0	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1532		mg/Kg		77	70 - 130	1	35
o-Xylene	<0.00199	U	0.0990	0.07517		mg/Kg		76	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-41840/1-A

Matrix: Solid

Analysis Batch: 42076

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 41840

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/22 14:33	12/17/22 08:52	1

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

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

Lab Sample ID: MB 880-41840/1-A

Matrix: Solid

Analysis Batch: 42076

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 41840

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/22 14:33	12/17/22 08:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/22 14:33	12/17/22 08:52	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130			12/14/22 14:33	12/17/22 08:52	1
o-Terphenyl	140	S1+	70 - 130			12/14/22 14:33	12/17/22 08:52	1

Lab Sample ID: LCS 880-41840/2-A

Matrix: Solid

Analysis Batch: 42076

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 41840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	890.3		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	1000	873.8		mg/Kg		87	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	109		70 - 130				
o-Terphenyl	103		70 - 130				

Lab Sample ID: LCSD 880-41840/3-A

Matrix: Solid

Analysis Batch: 42076

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 41840

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	927.5		mg/Kg		93	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	976.8		mg/Kg		98	70 - 130	11	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	106		70 - 130						
o-Terphenyl	114		70 - 130						

Lab Sample ID: 890-3624-A-1-C MS

Matrix: Solid

Analysis Batch: 42076

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 41840

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1103		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1025		mg/Kg		103	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	119		70 - 130						
o-Terphenyl	92		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

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

Lab Sample ID: 890-3624-A-1-D MSD

Matrix: Solid

Analysis Batch: 42076

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 41840

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1074		mg/Kg		108	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1029		mg/Kg		103	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	106		70 - 130								
o-Terphenyl	92		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-41906/1-A

Matrix: Solid

Analysis Batch: 42175

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/20/22 09:53	1

Lab Sample ID: LCS 880-41906/2-A

Matrix: Solid

Analysis Batch: 42175

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Lab Sample ID: LCSD 880-41906/3-A

Matrix: Solid

Analysis Batch: 42175

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	259.4		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3627-1 MS

Matrix: Solid

Analysis Batch: 42175

Client Sample ID: SS06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.05	U	253	258.4		mg/Kg		102	90 - 110

Lab Sample ID: 890-3627-1 MSD

Matrix: Solid

Analysis Batch: 42175

Client Sample ID: SS06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.05	U	253	264.8		mg/Kg		104	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

GC VOA

Analysis Batch: 42368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Total/NA	Solid	8021B	42484
890-3627-2	SS07	Total/NA	Solid	8021B	42484
MB 880-42368/101	Method Blank	Total/NA	Solid	8021B	
MB 880-42484/5-A	Method Blank	Total/NA	Solid	8021B	42484
LCS 880-42484/1-A	Lab Control Sample	Total/NA	Solid	8021B	42484
LCSD 880-42484/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42484
890-3627-1 MS	SS06	Total/NA	Solid	8021B	42484
890-3627-1 MSD	SS06	Total/NA	Solid	8021B	42484

Prep Batch: 42484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Total/NA	Solid	5035	
890-3627-2	SS07	Total/NA	Solid	5035	
MB 880-42484/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42484/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42484/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3627-1 MS	SS06	Total/NA	Solid	5035	
890-3627-1 MSD	SS06	Total/NA	Solid	5035	

Analysis Batch: 42574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Total/NA	Solid	Total BTEX	
890-3627-2	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 41840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Total/NA	Solid	8015NM Prep	
890-3627-2	SS07	Total/NA	Solid	8015NM Prep	
MB 880-41840/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-41840/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-41840/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3624-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3624-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 42076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Total/NA	Solid	8015B NM	41840
890-3627-2	SS07	Total/NA	Solid	8015B NM	41840
MB 880-41840/1-A	Method Blank	Total/NA	Solid	8015B NM	41840
LCS 880-41840/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	41840
LCSD 880-41840/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	41840
890-3624-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	41840
890-3624-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	41840

Analysis Batch: 42196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Total/NA	Solid	8015 NM	
890-3627-2	SS07	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

HPLC/IC

Leach Batch: 41906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Soluble	Solid	DI Leach	
890-3627-2	SS07	Soluble	Solid	DI Leach	
MB 880-41906/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41906/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41906/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3627-1 MS	SS06	Soluble	Solid	DI Leach	
890-3627-1 MSD	SS06	Soluble	Solid	DI Leach	

Analysis Batch: 42175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3627-1	SS06	Soluble	Solid	300.0	41906
890-3627-2	SS07	Soluble	Solid	300.0	41906
MB 880-41906/1-A	Method Blank	Soluble	Solid	300.0	41906
LCS 880-41906/2-A	Lab Control Sample	Soluble	Solid	300.0	41906
LCSD 880-41906/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41906
890-3627-1 MS	SS06	Soluble	Solid	300.0	41906
890-3627-1 MSD	SS06	Soluble	Solid	300.0	41906

Lab Chronicle

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Client Sample ID: SS06
Date Collected: 12/12/22 09:30
Date Received: 12/12/22 16:10

Lab Sample ID: 890-3627-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	42484	12/22/22 09:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42368	12/23/22 12:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			42574	12/23/22 17:07	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42196	12/19/22 15:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	41840	12/14/22 14:33	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42076	12/17/22 20:23	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	41906	12/15/22 11:02	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42175	12/20/22 10:16	CH	EET MID

Client Sample ID: SS07
Date Collected: 12/12/22 09:35
Date Received: 12/12/22 16:10

Lab Sample ID: 890-3627-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	42484	12/22/22 09:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42368	12/23/22 13:02	SM	EET MID
Total/NA	Analysis	Total BTEX		1			42574	12/23/22 17:07	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42196	12/19/22 15:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	41840	12/14/22 14:33	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42076	12/17/22 20:44	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	41906	12/15/22 11:02	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42175	12/20/22 10:40	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
- 4
- 5
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- 7
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- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3627-1
SDG: 03D2024096

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3627-1	SS06	Solid	12/12/22 09:30	12/12/22 16:10	2'
890-3627-2	SS07	Solid	12/12/22 09:35	12/12/22 16:10	2'

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Environmental Science
Xerox

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
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El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 968-3199


Chain of Custody

Work Order No.:

Page 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	Kaler Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 Nat'l Parks Hwy
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	Carlsbad, NM, 87020
Phone:	432-557-8895	Email:	hgreen@ensolum.com, kjennings@ensolum.com



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

Project Name:		Tristle Draw 5 Federal #2		Turn Around		Pres. Code	ANALYSIS REQUEST										Preservative Codes				
Project Number:		03DD2024096		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush													None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NASO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SACP				
Project Location:		32.238333, -103.723333		Due Date:																	
Sampler's Name:		Julianna Falcomata		TAT starts the day received by the lab, if received by 4:30pm																	
PO #:																					
SAMPLE RECEIPT				Temp Blank:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Parameters									
Samples Received Intact:				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID:		TAW-007													
Cooler Custody Seals:				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Correction Factor:		-0.02													
Sample Custody Seals:				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		N/A		Temperature Reading:		22.8											
Total Containers:								Corrected Temperature:		22.4											
RIDES (EPA: 300.0)																					
015)																					
8021																					
																					
890-3627 Chain of Custody																					

[illegible]

Circle Method(s) and Metal(s) to be analyzed	200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	Zr
			TCLP / SPLP 6010: 8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se <td>Ag</td> <td>Ti</td> <td>U</td> <td></td> <td></td> <td></td> <td>Hg: 1631 / 245.1 / 7470 / 7471</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Ag	Ti	U				Hg: 1631 / 245.1 / 7470 / 7471							

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12/12/2020			
3						
5						

Revised Date: 08/25/2020 Row: 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3627-1

SDG Number: 03D2024096

Login Number: 3627

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3627-1

SDG Number: 03D2024096

Login Number: 3627

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 12/14/22 12:10 PM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 12/27/2022 9:08:39 AM

JOB DESCRIPTION

Triste Draw 5 Federal #2
SDG NUMBER 03D2024096

JOB NUMBER

890-3661-1

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
12/27/2022 9:08:39 AM

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

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Laboratory Job ID: 890-3661-1
SDG: 03D2024096

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Definitions/Glossary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD 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.

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: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Job ID: 890-3661-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3661-1****Receipt**

The samples were received on 12/14/2022 4:27 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 4.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW01 (890-3661-1), FS01 (890-3661-2), FS02 (890-3661-3), FS03 (890-3661-4) and FS04 (890-3661-5).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS01 (890-3661-2), FS02 (890-3661-3), FS03 (890-3661-4), FS04 (890-3661-5), (LCS 880-42526/1-A), (LCSD 880-42526/2-A) and (880-22856-A-74-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-22201-A-7-D MS) and (880-22201-A-7-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS04 (890-3661-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-42052 and analytical batch 880-42108 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-42030 and analytical batch 880-42110 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-42030/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-42030 and analytical batch 880-42110 contained Oil Range Organics (Over C28-C36) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-42030 and analytical batch 880-42110 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Client Sample ID: SW01

Lab Sample ID: 890-3661-1

Date Collected: 12/13/22 11:10

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/26/22 10:49	12/26/22 20:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/26/22 10:49	12/26/22 20:04	1
Ethylbenzene	0.00234		0.00200	mg/Kg		12/26/22 10:49	12/26/22 20:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/26/22 10:49	12/26/22 20:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/26/22 10:49	12/26/22 20:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/26/22 10:49	12/26/22 20:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130	12/26/22 10:49	12/26/22 20:04	1
1,4-Difluorobenzene (Surr)	103		70 - 130	12/26/22 10:49	12/26/22 20:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			12/27/22 09:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/19/22 17:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		12/16/22 13:29	12/18/22 20:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/16/22 13:29	12/18/22 20:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/16/22 13:29	12/18/22 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	12/16/22 13:29	12/18/22 20:30	1
o-Terphenyl	129		70 - 130	12/16/22 13:29	12/18/22 20:30	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	717		5.03	mg/Kg			12/23/22 19:29	1

Client Sample ID: FS01

Lab Sample ID: 890-3661-2

Date Collected: 12/14/22 10:30

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/26/22 22:59	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/26/22 22:59	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/26/22 22:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/22/22 13:29	12/26/22 22:59	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/26/22 22:59	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/22/22 13:29	12/26/22 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	156	S1+	70 - 130	12/22/22 13:29	12/26/22 22:59	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Client Sample ID: FS01

Lab Sample ID: 890-3661-2

Date Collected: 12/14/22 10:30

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	12/22/22 13:29	12/26/22 22:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/27/22 09:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/19/22 15:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/16/22 14:44	12/19/22 03:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		12/16/22 14:44	12/19/22 03:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/16/22 14:44	12/19/22 03:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			12/16/22 14:44	12/19/22 03:25	1
o-Terphenyl	102		70 - 130			12/16/22 14:44	12/19/22 03:25	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18500		100	mg/Kg			12/23/22 19:55	20

Client Sample ID: FS02

Lab Sample ID: 890-3661-3

Date Collected: 12/14/22 11:00

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/22/22 13:29	12/26/22 23:26	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/22/22 13:29	12/26/22 23:26	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/22/22 13:29	12/26/22 23:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/22/22 13:29	12/26/22 23:26	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/22/22 13:29	12/26/22 23:26	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/22/22 13:29	12/26/22 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	154	S1+	70 - 130	12/22/22 13:29	12/26/22 23:26	1
1,4-Difluorobenzene (Surr)	88		70 - 130	12/22/22 13:29	12/26/22 23:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			12/27/22 09:25	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			12/19/22 15:23	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Client Sample ID: FS02

Lab Sample ID: 890-3661-3

Date Collected: 12/14/22 11:00

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/16/22 14:44	12/19/22 03:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		12/16/22 14:44	12/19/22 03:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/16/22 14:44	12/19/22 03:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			12/16/22 14:44	12/19/22 03:46	1
o-Terphenyl	91		70 - 130			12/16/22 14:44	12/19/22 03:46	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		100	mg/Kg			12/23/22 20:04	20

Client Sample ID: FS03

Lab Sample ID: 890-3661-4

Date Collected: 12/14/22 11:05

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 23:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 23:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 23:53	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/22/22 13:29	12/26/22 23:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 23:53	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/22/22 13:29	12/26/22 23:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130			12/22/22 13:29	12/26/22 23:53	1
1,4-Difluorobenzene (Surr)	87		70 - 130			12/22/22 13:29	12/26/22 23:53	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			12/27/22 09:25	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			12/19/22 15:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/16/22 14:44	12/19/22 04:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		12/16/22 14:44	12/19/22 04:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/16/22 14:44	12/19/22 04:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130			12/16/22 14:44	12/19/22 04:07	1
o-Terphenyl	108		70 - 130			12/16/22 14:44	12/19/22 04:07	1

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Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Client Sample ID: FS03

Lab Sample ID: 890-3661-4

Date Collected: 12/14/22 11:05

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 4'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5640		50.2	mg/Kg			12/23/22 20:13	10

Client Sample ID: FS04

Lab Sample ID: 890-3661-5

Date Collected: 12/14/22 11:10

Matrix: Solid

Date Received: 12/14/22 16:27

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/27/22 00:20	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/27/22 00:20	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/27/22 00:20	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/22/22 13:29	12/27/22 00:20	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/22/22 13:29	12/27/22 00:20	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/22/22 13:29	12/27/22 00:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	164	S1+	70 - 130			12/22/22 13:29	12/27/22 00:20	1
1,4-Difluorobenzene (Surr)	94		70 - 130			12/22/22 13:29	12/27/22 00:20	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/27/22 09:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/19/22 15:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/16/22 14:44	12/19/22 04:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		12/16/22 14:44	12/19/22 04:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/16/22 14:44	12/19/22 04:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130			12/16/22 14:44	12/19/22 04:29	1
o-Terphenyl	121		70 - 130			12/16/22 14:44	12/19/22 04:29	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9090		50.0	mg/Kg			12/23/22 20:21	10

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Surrogate Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
820-6771-A-1 MS	Matrix Spike	92	101
820-6771-A-1 MSD	Matrix Spike Duplicate	101	108
880-22856-A-74-C MS	Matrix Spike	128	89
880-22856-A-74-D MSD	Matrix Spike Duplicate	135 S1+	98
890-3661-1	SW01	134 S1+	103
890-3661-2	FS01	156 S1+	88
890-3661-3	FS02	154 S1+	88
890-3661-4	FS03	149 S1+	87
890-3661-5	FS04	164 S1+	94
LCS 880-42487/1-A	Lab Control Sample	91	89
LCS 880-42526/1-A	Lab Control Sample	140 S1+	91
LCSD 880-42487/2-A	Lab Control Sample Dup	95	92
LCSD 880-42526/2-A	Lab Control Sample Dup	135 S1+	85
MB 880-42487/5-A	Method Blank	97	92
MB 880-42526/5-A	Method Blank	94	81
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-22201-A-7-D MS	Matrix Spike	71	66 S1-
880-22201-A-7-E MSD	Matrix Spike Duplicate	74	67 S1-
880-22829-A-1-D MS	Matrix Spike	112	106
880-22829-A-1-E MSD	Matrix Spike Duplicate	97	98
890-3661-1	SW01	120	129
890-3661-2	FS01	106	102
890-3661-3	FS02	97	91
890-3661-4	FS03	116	108
890-3661-5	FS04	134 S1+	121
LCS 880-42030/2-A	Lab Control Sample	104	121
LCS 880-42052/2-A	Lab Control Sample	105	108
LCSD 880-42030/3-A	Lab Control Sample Dup	118	135 S1+
LCSD 880-42052/3-A	Lab Control Sample Dup	80	89
MB 880-42030/1-A	Method Blank	148 S1+	168 S1+
MB 880-42052/1-A	Method Blank	117	114
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42487/5-A

Matrix: Solid

Analysis Batch: 42596

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42487

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/22/22 10:36	12/26/22 13:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/22/22 10:36	12/26/22 13:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/22/22 10:36	12/26/22 13:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/22/22 10:36	12/26/22 13:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/22/22 10:36	12/26/22 13:51	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/22/22 10:36	12/26/22 13:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	12/22/22 10:36	12/26/22 13:51	1
1,4-Difluorobenzene (Surr)	92		70 - 130	12/22/22 10:36	12/26/22 13:51	1

Lab Sample ID: LCS 880-42487/1-A

Matrix: Solid

Analysis Batch: 42596

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1000		mg/Kg		100	70 - 130
Toluene	0.100	0.09654		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.08827		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1924		mg/Kg		96	70 - 130
o-Xylene	0.100	0.09417		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: LCSD 880-42487/2-A

Matrix: Solid

Analysis Batch: 42596

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42487

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	7	35
Toluene	0.100	0.1024		mg/Kg		102	70 - 130	6	35
Ethylbenzene	0.100	0.09383		mg/Kg		94	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2059		mg/Kg		103	70 - 130	7	35
o-Xylene	0.100	0.1014		mg/Kg		101	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: MB 880-42526/5-A

Matrix: Solid

Analysis Batch: 42597

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42526

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 14:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 14:32	1

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

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

Lab Sample ID: MB 880-42526/5-A

Matrix: Solid

Analysis Batch: 42597

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42526

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 14:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/22/22 13:29	12/26/22 14:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/22/22 13:29	12/26/22 14:32	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/22/22 13:29	12/26/22 14:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	12/22/22 13:29	12/26/22 14:32	1
1,4-Difluorobenzene (Surr)	81		70 - 130	12/22/22 13:29	12/26/22 14:32	1

Lab Sample ID: LCS 880-42526/1-A

Matrix: Solid

Analysis Batch: 42597

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.09356		mg/Kg		94	70 - 130
Toluene	0.100	0.09765		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1153		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	0.200	0.2336		mg/Kg		117	70 - 130
o-Xylene	0.100	0.1138		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: LCSD 880-42526/2-A

Matrix: Solid

Analysis Batch: 42597

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42526

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09587		mg/Kg		96	70 - 130	2	35
Toluene	0.100	0.09015		mg/Kg		90	70 - 130	8	35
Ethylbenzene	0.100	0.1065		mg/Kg		106	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2149		mg/Kg		107	70 - 130	8	35
o-Xylene	0.100	0.1065		mg/Kg		106	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 880-22856-A-74-C MS

Matrix: Solid

Analysis Batch: 42597

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00201	U	0.100	0.09559		mg/Kg		95	70 - 130
Toluene	<0.00201	U	0.100	0.08474		mg/Kg		85	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09640		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1944		mg/Kg		97	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

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

Lab Sample ID: 880-22856-A-74-C MS

Matrix: Solid

Analysis Batch: 42597

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	<0.00201	U	0.100	0.09771		mg/Kg		98	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-22856-A-74-D MSD

Matrix: Solid

Analysis Batch: 42597

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42526

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1016		mg/Kg		103	70 - 130	6	35
Toluene	<0.00201	U	0.0990	0.08891		mg/Kg		90	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.1012		mg/Kg		102	70 - 130	5	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2044		mg/Kg		103	70 - 130	5	35
o-Xylene	<0.00201	U	0.0990	0.09883		mg/Kg		100	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 820-6771-A-1 MS

Matrix: Solid

Analysis Batch: 42596

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 820-6771-A-1 MSD

Matrix: Solid

Analysis Batch: 42596

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

Lab Sample ID: MB 880-42030/1-A

Matrix: Solid

Analysis Batch: 42110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42030

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/16/22 13:29	12/18/22 09:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/16/22 13:29	12/18/22 09:55	1

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

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

Lab Sample ID: MB 880-42030/1-A

Matrix: Solid

Analysis Batch: 42110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42030

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/16/22 13:29	12/18/22 09:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	148	S1+	70 - 130			12/16/22 13:29	12/18/22 09:55	1
o-Terphenyl	168	S1+	70 - 130			12/16/22 13:29	12/18/22 09:55	1

Lab Sample ID: LCS 880-42030/2-A

Matrix: Solid

Analysis Batch: 42110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	839.7		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	994.3		mg/Kg		99	70 - 130
Surrogate	%Recovery	Qualifier	Limits				
1-Chlorooctane	104		70 - 130				
o-Terphenyl	121		70 - 130				

Lab Sample ID: LCSD 880-42030/3-A

Matrix: Solid

Analysis Batch: 42110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42030

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1052	*1	mg/Kg		105	70 - 130	22	20
Diesel Range Organics (Over C10-C28)	1000	1144		mg/Kg		114	70 - 130	14	20
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	118		70 - 130						
o-Terphenyl	135	S1+	70 - 130						

Lab Sample ID: 880-22829-A-1-D MS

Matrix: Solid

Analysis Batch: 42110

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42030

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	999	1174		mg/Kg		115	70 - 130
Diesel Range Organics (Over C10-C28)	110		999	1275		mg/Kg		117	70 - 130
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	112		70 - 130						
o-Terphenyl	106		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

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

Lab Sample ID: 880-22829-A-1-E MSD

Matrix: Solid

Analysis Batch: 42110

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42030

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	997	957.2		mg/Kg		93	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	110		997	1133		mg/Kg		103	70 - 130	12	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	97		70 - 130								
o-Terphenyl	98		70 - 130								

Lab Sample ID: MB 880-42052/1-A

Matrix: Solid

Analysis Batch: 42108

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42052

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/16/22 14:44	12/18/22 21:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/16/22 14:44	12/18/22 21:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/16/22 14:44	12/18/22 21:14	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			12/16/22 14:44	12/18/22 21:14	1
o-Terphenyl	114		70 - 130			12/16/22 14:44	12/18/22 21:14	1

Lab Sample ID: LCS 880-42052/2-A

Matrix: Solid

Analysis Batch: 42108

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42052

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	939.0		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1048		mg/Kg		105	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	105		70 - 130						
o-Terphenyl	108		70 - 130						

Lab Sample ID: LCSD 880-42052/3-A

Matrix: Solid

Analysis Batch: 42108

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42052

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	865.3		mg/Kg		87	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	802.1	*1	mg/Kg		80	70 - 130	27	20

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

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

Lab Sample ID: LCSD 880-42052/3-A

Matrix: Solid

Analysis Batch: 42108

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42052

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 880-22201-A-7-D MS

Matrix: Solid

Analysis Batch: 42108

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42052

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	838.8		mg/Kg		82	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	801.2		mg/Kg		80	70 - 130	
Surrogate	%Recovery	Qualifier	Limits	MS	MS					
1-Chlorooctane	71		70 - 130							
o-Terphenyl	66	S1-	70 - 130							

Lab Sample ID: 880-22201-A-7-E MSD

Matrix: Solid

Analysis Batch: 42108

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42052

	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	<50.0	U	997	790.2		mg/Kg		77	70 - 130	6	20	
Diesel Range Organics (Over C10-C28)	<50.0	U *1	997	830.7		mg/Kg		83	70 - 130	4	20	
Surrogate	%Recovery	Qualifier	Limits	MSD	MSD							
1-Chlorooctane	74		70 - 130									
o-Terphenyl	67	S1-	70 - 130									

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-41932/1-A

Matrix: Solid

Analysis Batch: 42332

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac	
Chloride	<5.00	U	5.00	mg/Kg			12/23/22 16:26		1	

Lab Sample ID: LCS 880-41932/2-A

Matrix: Solid

Analysis Batch: 42332

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	264.6		mg/Kg		106	90 - 110		

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-41932/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 42332											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	264.9		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3660-A-3-B MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 42332											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	297		248	566.1		mg/Kg		109	90 - 110		

Lab Sample ID: 890-3660-A-3-C MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 42332											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	297		248	548.6		mg/Kg		102	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

GC VOA

Prep Batch: 42487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-42487/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42487/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42487/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 42526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-2	FS01	Total/NA	Solid	5035	
890-3661-3	FS02	Total/NA	Solid	5035	
890-3661-4	FS03	Total/NA	Solid	5035	
890-3661-5	FS04	Total/NA	Solid	5035	
MB 880-42526/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42526/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42526/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-22856-A-74-C MS	Matrix Spike	Total/NA	Solid	5035	
880-22856-A-74-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 42593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Total/NA	Solid	5035	

Analysis Batch: 42596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Total/NA	Solid	8021B	42593
MB 880-42487/5-A	Method Blank	Total/NA	Solid	8021B	42487
LCS 880-42487/1-A	Lab Control Sample	Total/NA	Solid	8021B	42487
LCSD 880-42487/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42487
820-6771-A-1 MS	Matrix Spike	Total/NA	Solid	8021B	
820-6771-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	

Analysis Batch: 42597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-2	FS01	Total/NA	Solid	8021B	42526
890-3661-3	FS02	Total/NA	Solid	8021B	42526
890-3661-4	FS03	Total/NA	Solid	8021B	42526
890-3661-5	FS04	Total/NA	Solid	8021B	42526
MB 880-42526/5-A	Method Blank	Total/NA	Solid	8021B	42526
LCS 880-42526/1-A	Lab Control Sample	Total/NA	Solid	8021B	42526
LCSD 880-42526/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42526
880-22856-A-74-C MS	Matrix Spike	Total/NA	Solid	8021B	42526
880-22856-A-74-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	42526

Analysis Batch: 42646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Total/NA	Solid	Total BTEX	
890-3661-2	FS01	Total/NA	Solid	Total BTEX	
890-3661-3	FS02	Total/NA	Solid	Total BTEX	
890-3661-4	FS03	Total/NA	Solid	Total BTEX	
890-3661-5	FS04	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

GC Semi VOA

Prep Batch: 42030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Total/NA	Solid	8015NM Prep	
MB 880-42030/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42030/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-22829-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-22829-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 42052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-2	FS01	Total/NA	Solid	8015NM Prep	
890-3661-3	FS02	Total/NA	Solid	8015NM Prep	
890-3661-4	FS03	Total/NA	Solid	8015NM Prep	
890-3661-5	FS04	Total/NA	Solid	8015NM Prep	
MB 880-42052/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42052/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42052/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-22201-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-22201-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 42108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-2	FS01	Total/NA	Solid	8015B NM	42052
890-3661-3	FS02	Total/NA	Solid	8015B NM	42052
890-3661-4	FS03	Total/NA	Solid	8015B NM	42052
890-3661-5	FS04	Total/NA	Solid	8015B NM	42052
MB 880-42052/1-A	Method Blank	Total/NA	Solid	8015B NM	42052
LCS 880-42052/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42052
LCSD 880-42052/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42052
880-22201-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	42052
880-22201-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	42052

Analysis Batch: 42110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Total/NA	Solid	8015B NM	42030
MB 880-42030/1-A	Method Blank	Total/NA	Solid	8015B NM	42030
LCS 880-42030/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42030
LCSD 880-42030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42030
880-22829-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	42030
880-22829-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	42030

Analysis Batch: 42214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Total/NA	Solid	8015 NM	
890-3661-2	FS01	Total/NA	Solid	8015 NM	
890-3661-3	FS02	Total/NA	Solid	8015 NM	
890-3661-4	FS03	Total/NA	Solid	8015 NM	
890-3661-5	FS04	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

HPLC/IC

Leach Batch: 41932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Soluble	Solid	DI Leach	
890-3661-2	FS01	Soluble	Solid	DI Leach	
890-3661-3	FS02	Soluble	Solid	DI Leach	
890-3661-4	FS03	Soluble	Solid	DI Leach	
890-3661-5	FS04	Soluble	Solid	DI Leach	
MB 880-41932/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41932/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41932/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3660-A-3-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3660-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 42332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3661-1	SW01	Soluble	Solid	300.0	41932
890-3661-2	FS01	Soluble	Solid	300.0	41932
890-3661-3	FS02	Soluble	Solid	300.0	41932
890-3661-4	FS03	Soluble	Solid	300.0	41932
890-3661-5	FS04	Soluble	Solid	300.0	41932
MB 880-41932/1-A	Method Blank	Soluble	Solid	300.0	41932
LCS 880-41932/2-A	Lab Control Sample	Soluble	Solid	300.0	41932
LCSD 880-41932/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41932
890-3660-A-3-B MS	Matrix Spike	Soluble	Solid	300.0	41932
890-3660-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	41932

Lab Chronicle

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Client Sample ID: SW01

Lab Sample ID: 890-3661-1

Date Collected: 12/13/22 11:10

Matrix: Solid

Date Received: 12/14/22 16:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 g	42593	12/26/22 10:49	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42596	12/26/22 20:04	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			42646	12/27/22 09:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			42214	12/19/22 17:07	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42030	12/16/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42110	12/18/22 20:30	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	41932	12/15/22 14:26	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42332	12/23/22 19:29	CH	EET MID

Client Sample ID: FS01

Lab Sample ID: 890-3661-2

Date Collected: 12/14/22 10:30

Matrix: Solid

Date Received: 12/14/22 16:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	42526	12/22/22 13:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42597	12/26/22 22:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42646	12/27/22 09:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			42214	12/19/22 15:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42052	12/16/22 14:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42108	12/19/22 03:25	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	41932	12/15/22 14:26	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	42332	12/23/22 19:55	CH	EET MID

Client Sample ID: FS02

Lab Sample ID: 890-3661-3

Date Collected: 12/14/22 11:00

Matrix: Solid

Date Received: 12/14/22 16:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	42526	12/22/22 13:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42597	12/26/22 23:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42646	12/27/22 09:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			42214	12/19/22 15:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	42052	12/16/22 14:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42108	12/19/22 03:46	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	41932	12/15/22 14:26	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	42332	12/23/22 20:04	CH	EET MID

Client Sample ID: FS03

Lab Sample ID: 890-3661-4

Date Collected: 12/14/22 11:05

Matrix: Solid

Date Received: 12/14/22 16:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	42526	12/22/22 13:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42597	12/26/22 23:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42646	12/27/22 09:25	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Client Sample ID: FS03
Date Collected: 12/14/22 11:05
Date Received: 12/14/22 16:27

Lab Sample ID: 890-3661-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			42214	12/19/22 15:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	42052	12/16/22 14:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42108	12/19/22 04:07	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	41932	12/15/22 14:26	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	42332	12/23/22 20:13	CH	EET MID

Client Sample ID: FS04
Date Collected: 12/14/22 11:10
Date Received: 12/14/22 16:27

Lab Sample ID: 890-3661-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	42526	12/22/22 13:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42597	12/27/22 00:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42646	12/27/22 09:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			42214	12/19/22 15:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	42052	12/16/22 14:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42108	12/19/22 04:29	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	41932	12/15/22 14:26	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	42332	12/23/22 20:21	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Laboratory: Eurofins Midland

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

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

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

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Method Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3661-1
SDG: 03D2024096

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3661-1	SW01	Solid	12/13/22 11:10	12/14/22 16:27	0-4'
890-3661-2	FS01	Solid	12/14/22 10:30	12/14/22 16:27	4'
890-3661-3	FS02	Solid	12/14/22 11:00	12/14/22 16:27	4'
890-3661-4	FS03	Solid	12/14/22 11:05	12/14/22 16:27	4'
890-3661-5	FS04	Solid	12/14/22 11:10	12/14/22 16:27	4'

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Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 Nat'l Parks Hwy
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	Carlsbad, NM, 87020
Phone:	432-557-8895	Email:	kgreen@ensolum.com, kjennings@ensolum.com

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

Project Name:	Triste Draw 5 Federal #2	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03D2024096	Due Date:			
Project Location:	32.238333, -103.723333	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Juliana Falcomata				
PO #:					
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Samples Received In tact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:			
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:			
Total Containers:		Corrected Temperature:			
Parameters					
CHLORIDES (EPA: 300.0)					
TPH (8015)					
BTEX (8021)					
ANALYSIS REQUEST					
Preservative Codes					
None: NO <input type="checkbox"/> DI Water: H ₂ O <input type="checkbox"/>					
Cool: Cool <input type="checkbox"/> MeOH: Me <input type="checkbox"/>					
HCL: HC <input type="checkbox"/> HNO ₃ : HN <input type="checkbox"/>					
H ₂ SO ₄ : H ₂ <input type="checkbox"/> NaOH: Na <input type="checkbox"/>					
H ₃ PO ₄ : HP <input type="checkbox"/>					
NaHSO ₄ : NABIS <input type="checkbox"/>					
Na ₂ S ₂ O ₃ : NaSO ₃ <input type="checkbox"/>					
Zn Acetate+NaOH: Zn <input type="checkbox"/>					
NaOH+Ascorbic Acid: SAPC <input type="checkbox"/>					



890-3661 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
50001	S	12-13-22	1110	0-4'	Q	1				
5001	S	12-14-22	1030	4'	Q	1				
5002	S	12-14-22	1100	4'	Q	1				
5003	S	12-14-22	1105	4'	Q	1				
5004	S	12-14-22	1110	4'	C	1				

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3661-1

SDG Number: 03D2024096

Login Number: 3661

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3661-1

SDG Number: 03D2024096

Login Number: 3661

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 12/16/22 11:35 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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 12/29/2022 4:27:54 PM

JOB DESCRIPTION

Triste Draw 5 Federal #2
SDG NUMBER Lea County, NM

JOB NUMBER

890-3697-1

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
12/29/2022 4:27:54 PM

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

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Laboratory Job ID: 890-3697-1
SDG: Lea County, NM

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Definitions/Glossary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Job ID: 890-3697-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3697-1****Receipt**

The sample was received on 12/21/2022 9:54 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 0.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW02 (890-3697-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-42468 and analytical batch 880-42463 was outside the upper control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-42468 and analytical batch 880-42463 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Client Sample ID: SW02

Lab Sample ID: 890-3697-1

Date Collected: 12/20/22 11:00

Matrix: Solid

Date Received: 12/21/22 09:54

Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		12/28/22 14:22	12/29/22 15:10	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/28/22 14:22	12/29/22 15:10	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/28/22 14:22	12/29/22 15:10	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		12/28/22 14:22	12/29/22 15:10	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/28/22 14:22	12/29/22 15:10	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		12/28/22 14:22	12/29/22 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	42	S1-	70 - 130	12/28/22 14:22	12/29/22 15:10	1
1,4-Difluorobenzene (Surr)	78		70 - 130	12/28/22 14:22	12/29/22 15:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			12/29/22 16:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/27/22 10:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		12/22/22 08:02	12/22/22 16:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/22/22 08:02	12/22/22 16:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/22/22 08:02	12/22/22 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	12/22/22 08:02	12/22/22 16:33	1
o-Terphenyl	90		70 - 130	12/22/22 08:02	12/22/22 16:33	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.1		5.01	mg/Kg			12/27/22 14:22	1

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Surrogate Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-23040-A-1-G MS	Matrix Spike	125	86
880-23040-A-1-H MSD	Matrix Spike Duplicate	129	88
890-3697-1	SW02	42 S1-	78
LCS 880-42811/1-A	Lab Control Sample	110	94
LCSD 880-42811/2-A	Lab Control Sample Dup	112	94
MB 880-42811/5-A	Method Blank	102	86
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-22965-A-21-E MS	Matrix Spike	98	85
880-22965-A-21-F MSD	Matrix Spike Duplicate	103	91
890-3697-1	SW02	87	90
LCS 880-42468/2-A	Lab Control Sample	99	100
LCSD 880-42468/3-A	Lab Control Sample Dup	117	117
MB 880-42468/1-A	Method Blank	128	132 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42811/5-A

Matrix: Solid

Analysis Batch: 42860

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42811

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:22	12/29/22 13:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:22	12/29/22 13:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:22	12/29/22 13:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/28/22 14:22	12/29/22 13:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:22	12/29/22 13:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/28/22 14:22	12/29/22 13:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	12/28/22 14:22	12/29/22 13:26	1
1,4-Difluorobenzene (Surr)	86		70 - 130	12/28/22 14:22	12/29/22 13:26	1

Lab Sample ID: LCS 880-42811/1-A

Matrix: Solid

Analysis Batch: 42860

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1138		mg/Kg		114	70 - 130
Toluene	0.100	0.1117		mg/Kg		112	70 - 130
Ethylbenzene	0.100	0.1082		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2367		mg/Kg		118	70 - 130
o-Xylene	0.100	0.1166		mg/Kg		117	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-42811/2-A

Matrix: Solid

Analysis Batch: 42860

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42811

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1164		mg/Kg		116	70 - 130	2	35
Toluene	0.100	0.1138		mg/Kg		114	70 - 130	2	35
Ethylbenzene	0.100	0.1118		mg/Kg		112	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2496		mg/Kg		125	70 - 130	5	35
o-Xylene	0.100	0.1228		mg/Kg		123	70 - 130	5	35

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

Lab Sample ID: 880-23040-A-1-G MS

Matrix: Solid

Analysis Batch: 42860

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42811

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.07419		mg/Kg		74	70 - 130
Toluene	<0.00201	U	0.101	0.08714		mg/Kg		86	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

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

Lab Sample ID: 880-23040-A-1-G MS

Matrix: Solid

Analysis Batch: 42860

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42811

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.09720		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.2176		mg/Kg		108	70 - 130
o-Xylene	<0.00201	U	0.101	0.1077		mg/Kg		107	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 880-23040-A-1-H MSD

Matrix: Solid

Analysis Batch: 42860

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42811

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08003		mg/Kg		81	70 - 130	8	35
Toluene	<0.00201	U	0.0990	0.09088		mg/Kg		92	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09840		mg/Kg		99	70 - 130	1	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2218		mg/Kg		112	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.1102		mg/Kg		111	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

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

Lab Sample ID: MB 880-42468/1-A

Matrix: Solid

Analysis Batch: 42463

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42468

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/22/22 08:02	12/22/22 08:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/22/22 08:02	12/22/22 08:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/22/22 08:02	12/22/22 08:27	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	12/22/22 08:02	12/22/22 08:27	1
o-Terphenyl	132	S1+	70 - 130	12/22/22 08:02	12/22/22 08:27	1

Lab Sample ID: LCS 880-42468/2-A

Matrix: Solid

Analysis Batch: 42463

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	790.5		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	1000	837.0		mg/Kg		84	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

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

Lab Sample ID: LCS 880-42468/2-A
Matrix: Solid
Analysis Batch: 42463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42468

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-42468/3-A
Matrix: Solid
Analysis Batch: 42463

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 42468

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	977.6	*1	mg/Kg		98	70 - 130	21	20
Diesel Range Organics (Over C10-C28)	1000	1006		mg/Kg		101	70 - 130	18	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: 880-22965-A-21-E MS
Matrix: Solid
Analysis Batch: 42463

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 42468

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	999	889.9		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	259		999	1028		mg/Kg		77	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 880-22965-A-21-F MSD
Matrix: Solid
Analysis Batch: 42463

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 42468

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	997	1025		mg/Kg		99	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	259		997	1084		mg/Kg		83	70 - 130	5	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	91		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-42664/1-A

Matrix: Solid

Analysis Batch: 42700

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/27/22 12:28	1

Lab Sample ID: LCS 880-42664/2-A

Matrix: Solid

Analysis Batch: 42700

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.4		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-42664/3-A

Matrix: Solid

Analysis Batch: 42700

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	233.5		mg/Kg		93	90 - 110	3	20

Lab Sample ID: 890-3696-A-1-C MS

Matrix: Solid

Analysis Batch: 42700

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.7		250	289.4		mg/Kg		95	90 - 110

Lab Sample ID: 890-3696-A-1-D MSD

Matrix: Solid

Analysis Batch: 42700

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	50.7		250	281.8		mg/Kg		92	90 - 110	3	20

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

GC VOA

Prep Batch: 42811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Total/NA	Solid	5035	
MB 880-42811/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42811/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42811/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23040-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-23040-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 42860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Total/NA	Solid	8021B	42811
MB 880-42811/5-A	Method Blank	Total/NA	Solid	8021B	42811
LCS 880-42811/1-A	Lab Control Sample	Total/NA	Solid	8021B	42811
LCSD 880-42811/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42811
880-23040-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	42811
880-23040-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	42811

Analysis Batch: 42914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 42463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Total/NA	Solid	8015B NM	42468
MB 880-42468/1-A	Method Blank	Total/NA	Solid	8015B NM	42468
LCS 880-42468/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42468
LCSD 880-42468/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42468
880-22965-A-21-E MS	Matrix Spike	Total/NA	Solid	8015B NM	42468
880-22965-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	42468

Prep Batch: 42468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Total/NA	Solid	8015NM Prep	
MB 880-42468/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42468/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42468/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-22965-A-21-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-22965-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 42669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 42664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Soluble	Solid	DI Leach	
MB 880-42664/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-42664/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-42664/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

HPLC/IC (Continued)

Leach Batch: 42664 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3696-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3696-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 42700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3697-1	SW02	Soluble	Solid	300.0	42664
MB 880-42664/1-A	Method Blank	Soluble	Solid	300.0	42664
LCS 880-42664/2-A	Lab Control Sample	Soluble	Solid	300.0	42664
LCSD 880-42664/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	42664
890-3696-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	42664
890-3696-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	42664

Lab Chronicle

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Client Sample ID: SW02
Date Collected: 12/20/22 11:00
Date Received: 12/21/22 09:54

Lab Sample ID: 890-3697-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	42811	12/28/22 14:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42860	12/29/22 15:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42914	12/29/22 16:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42669	12/27/22 10:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42468	12/22/22 08:02	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42463	12/22/22 16:33	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	42664	12/27/22 10:31	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42700	12/27/22 14:22	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal #2

Job ID: 890-3697-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3697-1	SW02	Solid	12/20/22 11:00	12/21/22 09:54	0-4'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environmental Testing
Xerco

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
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


Chain of Custody

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:		Email:	kjennings@ensolum.com, hgreen



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

Project Name:	Triste Draw 5 Federal #2	Turn Around		Pres. Code	ANALYSIS REQUEST										Preservative Codes				
Project Number:	03D2024096	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Rush														None: NO	DI Water: H ₂ O	
Project Location:	Lea County, NM	Due Date:		24 Hr.													Cool: Cool	MeOH: Me	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm															HCL: HC	HNO ₃ : HN	
PO #:																	H ₂ SO ₄ : H ₂	NaOH: Na	
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													H ₃ PO ₄ : HP	
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	Tmw-007														NaHSO ₄ : NABIS		
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:	-0.2														Na ₂ S ₂ O ₃ : NaSO ₃		
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading:	0.0														Zn Acetate+NaOH: Zn		
Total Containers:		Corrected Temperature:	0.0														NaOH+Ascorbic Acid: SAPC		
Parameters																			
RIDES (EPA: 300.0)																			
(3015)																			
(8021)																			
890-3697 Chain of Custody																			

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO₂	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s)	to be analyzed		TCLP / SPLP	6010:	8RCRA	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	Hg: 1631 / 245.1 / 7470 / 7471											

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if 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
		12/21/22 0954			

Revised Date 08/25/2020 Rev 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3697-1

SDG Number: Lea County, NM

Login Number: 3697

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3697-1

SDG Number: Lea County, NM

Login Number: 3697

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 12/22/22 12:50 PM

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



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/13/2023 1:30:47 PM

JOB DESCRIPTION

Triste Draw 5 Federal 002
SDG NUMBER Lea County NM

JOB NUMBER

890-3767-1

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
1/13/2023 1:30:47 PM

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

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Laboratory Job ID: 890-3767-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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.
α	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: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Job ID: 890-3767-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3767-1

Receipt

The sample was received on 1/5/2023 10:30 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 5.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW03 (890-3767-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-43382 and analytical batch 880-43449 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-43363 and analytical batch 880-43615 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Client Sample ID: SW03

Lab Sample ID: 890-3767-1

Date Collected: 01/04/23 09:15

Matrix: Solid

Date Received: 01/05/23 10:30

Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/11/23 09:16	01/11/23 18:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 09:16	01/11/23 18:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 09:16	01/11/23 18:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 09:16	01/11/23 18:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 09:16	01/11/23 18:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 09:16	01/11/23 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/11/23 09:16	01/11/23 18:53	1
1,4-Difluorobenzene (Surr)	108		70 - 130	01/11/23 09:16	01/11/23 18:53	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/12/23 13:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/09/23 09:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/06/23 12:59	01/07/23 19:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/06/23 12:59	01/07/23 19:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/06/23 12:59	01/07/23 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	01/06/23 12:59	01/07/23 19:48	1
o-Terphenyl	78		70 - 130	01/06/23 12:59	01/07/23 19:48	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	413		4.98	mg/Kg			01/10/23 18:02	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-23426-A-20-H MS	Matrix Spike	104	104
880-23426-A-20-I MSD	Matrix Spike Duplicate	103	107
890-3767-1	SW03	111	108
LCS 880-43707/1-A	Lab Control Sample	104	107
LCSD 880-43707/2-A	Lab Control Sample Dup	105	106
MB 880-43707/5-A	Method Blank	101	100
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
820-7013-A-1-C MS	Matrix Spike	89	80
820-7013-A-1-D MSD	Matrix Spike Duplicate	89	81
890-3767-1	SW03	79	78
LCS 880-43382/2-A	Lab Control Sample	123	110
LCSD 880-43382/3-A	Lab Control Sample Dup	117	104
MB 880-43382/1-A	Method Blank	124	121
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43707/5-A

Matrix: Solid

Analysis Batch: 43709

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43707

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 09:16	01/11/23 12:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 09:16	01/11/23 12:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 09:16	01/11/23 12:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 09:16	01/11/23 12:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 09:16	01/11/23 12:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 09:16	01/11/23 12:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/11/23 09:16	01/11/23 12:25	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/11/23 09:16	01/11/23 12:25	1

Lab Sample ID: LCS 880-43707/1-A

Matrix: Solid

Analysis Batch: 43709

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43707

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1127		mg/Kg		113	70 - 130
Toluene	0.100	0.1039		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1014		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2081		mg/Kg		104	70 - 130
o-Xylene	0.100	0.09950		mg/Kg		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-43707/2-A

Matrix: Solid

Analysis Batch: 43709

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43707

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1150		mg/Kg		115	70 - 130	2	35
Toluene	0.100	0.1072		mg/Kg		107	70 - 130	3	35
Ethylbenzene	0.100	0.1034		mg/Kg		103	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2130		mg/Kg		107	70 - 130	2	35
o-Xylene	0.100	0.1012		mg/Kg		101	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-23426-A-20-H MS

Matrix: Solid

Analysis Batch: 43709

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43707

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1121		mg/Kg		111	70 - 130
Toluene	<0.00201	U	0.101	0.1048		mg/Kg		104	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

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

Lab Sample ID: 880-23426-A-20-H MS

Matrix: Solid

Analysis Batch: 43709

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43707

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.1013		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.2082		mg/Kg		103	70 - 130
o-Xylene	<0.00201	U	0.101	0.09904		mg/Kg		98	70 - 130

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

Lab Sample ID: 880-23426-A-20-I MSD

Matrix: Solid

Analysis Batch: 43709

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43707

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1122		mg/Kg		113	70 - 130	0	35
Toluene	<0.00201	U	0.0990	0.1037		mg/Kg		105	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0990	0.1000		mg/Kg		101	70 - 130	1	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2056		mg/Kg		104	70 - 130	1	35
o-Xylene	<0.00201	U	0.0990	0.09887		mg/Kg		100	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

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

Lab Sample ID: MB 880-43382/1-A

Matrix: Solid

Analysis Batch: 43449

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43382

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/06/23 12:59	01/07/23 09:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/06/23 12:59	01/07/23 09:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/06/23 12:59	01/07/23 09:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130	01/06/23 12:59	01/07/23 09:18	1
o-Terphenyl	121		70 - 130	01/06/23 12:59	01/07/23 09:18	1

Lab Sample ID: LCS 880-43382/2-A

Matrix: Solid

Analysis Batch: 43449

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43382

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1076		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	1000	975.0		mg/Kg		98	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-43382/2-A
Matrix: Solid
Analysis Batch: 43449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43382

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: LCSD 880-43382/3-A
Matrix: Solid
Analysis Batch: 43449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43382

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	993.4		mg/Kg		99	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	910.2		mg/Kg		91	70 - 130	7	20

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

Lab Sample ID: 820-7013-A-1-C MS
Matrix: Solid
Analysis Batch: 43449

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43382

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	843.8		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	690.3	F1	mg/Kg		67	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: 820-7013-A-1-D MSD
Matrix: Solid
Analysis Batch: 43449

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 43382

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	845.6		mg/Kg		82	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	681.4	F1	mg/Kg		66	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	81		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43363/1-A

Matrix: Solid

Analysis Batch: 43615

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/10/23 15:40	1

Lab Sample ID: LCS 880-43363/2-A

Matrix: Solid

Analysis Batch: 43615

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	250.7		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-43363/3-A

Matrix: Solid

Analysis Batch: 43615

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	250.9		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-23397-A-4-B MS

Matrix: Solid

Analysis Batch: 43615

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1250		248	1447	4	mg/Kg		79	90 - 110

Lab Sample ID: 880-23397-A-4-C MSD

Matrix: Solid

Analysis Batch: 43615

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1250		248	1447	4	mg/Kg		79	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

GC VOA

Prep Batch: 43707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Total/NA	Solid	5035	
MB 880-43707/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43707/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43707/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23426-A-20-H MS	Matrix Spike	Total/NA	Solid	5035	
880-23426-A-20-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Total/NA	Solid	8021B	43707
MB 880-43707/5-A	Method Blank	Total/NA	Solid	8021B	43707
LCS 880-43707/1-A	Lab Control Sample	Total/NA	Solid	8021B	43707
LCSD 880-43707/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43707
880-23426-A-20-H MS	Matrix Spike	Total/NA	Solid	8021B	43707
880-23426-A-20-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43707

Analysis Batch: 43818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Total/NA	Solid	8015NM Prep	
MB 880-43382/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43382/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43382/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
820-7013-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
820-7013-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Total/NA	Solid	8015B NM	43382
MB 880-43382/1-A	Method Blank	Total/NA	Solid	8015B NM	43382
LCS 880-43382/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43382
LCSD 880-43382/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43382
820-7013-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	43382
820-7013-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43382

Analysis Batch: 43491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Soluble	Solid	DI Leach	
MB 880-43363/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43363/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43363/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 43363 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23397-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-23397-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3767-1	SW03	Soluble	Solid	300.0	43363
MB 880-43363/1-A	Method Blank	Soluble	Solid	300.0	43363
LCS 880-43363/2-A	Lab Control Sample	Soluble	Solid	300.0	43363
LCSD 880-43363/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43363
880-23397-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	43363
880-23397-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43363

Lab Chronicle

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Client Sample ID: SW03
Date Collected: 01/04/23 09:15
Date Received: 01/05/23 10:30

Lab Sample ID: 890-3767-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	43707	01/11/23 09:16	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43709	01/11/23 18:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			43818	01/12/23 13:12	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43491	01/09/23 09:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43382	01/06/23 12:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43449	01/07/23 19:48	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	43363	01/06/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			43615	01/10/23 18:02	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: Ensolum
Project/Site: Triste Draw 5 Federal 002

Job ID: 890-3767-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3767-1	SW03	Solid	01/04/23 09:15	01/05/23 10:30	0-4'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
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

Chain of Custody

Work Order No: _____

Page 4 of 4



Project Manager:	MADIE GREEN	Bill to: (if different)	KATE JENNINGS
Company Name:	ART ENSOLVM LLC	Company Name:	"
Address:	601 N MARKET ST SUITE 400	Address:	"
City, State ZIP:	MIDLAND TX, 79701	City, State ZIP:	"
Phone:	817.683.8503	Email:	kjennings@ensolvm.com

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

[illegible][illegible]

Total 2007 / 6010	2008 / 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 SiO ₂ Na Sr Ti Sn U V Zn TCLP / SPLP 6010 : 8RCRA 5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg; 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno 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 Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			1.5.23 1030			
2						
3						
4						
5						
6						

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3767-1

SDG Number: Lea County NM

Login Number: 3767

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3767-1

SDG Number: Lea County NM

Login Number: 3767

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/06/23 11:27 AM

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



APPENDIX D

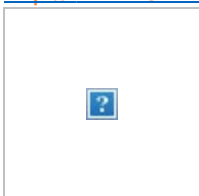
NMOCD Notifications

From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Subject: RE: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 12/12/2022)
Date: Thursday, December 8, 2022 9:22:43 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

[**EXTERNAL EMAIL**]

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.

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, December 7, 2022 4:47 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 12/12/2022)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

ConocoPhillips Company (COP) plans to complete final sampling activities at the following sites the week of December 12, 2022.

- Triste Draw/ NAPP2229033410
- Bandit 15 Federal Com 2/ NAPP2231139799
- Vast State 2H/ NAPP2231148750

Thank you,

Kalei Jennings



Senior Scientist
817-683-2503
Ensolum, LLC
☐ ☐ ☐

From: [Beauvais, Charles R](#)
To: [Kalei Jennings](#)
Subject: FW: [EXTERNAL](Extension Approval) COPC/COG - Triste Draw 5 Federal 001H (Incident Number NAPP2229033410)
Date: Thursday, December 29, 2022 2:10:55 PM
Attachments: [image002.jpg](#)
[image003.png](#)

[**EXTERNAL EMAIL **]

Approval

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Thursday, December 29, 2022 10:30 AM
To: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Cc: Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL](Extension Approval) COPC/COG - Triste Draw 5 Federal 001H (Incident Number NAPP2229033410)

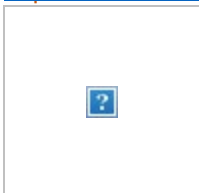
CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

RE: Incident #NAPP2229033410

Charles,

Your request for an extension to **April 3rd, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>

Sent: Wednesday, December 28, 2022 12:43 PM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>

Cc: Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>

Subject: [EXTERNAL] COPC/COG- Extension Request- Triste Draw 5 Federal 001H (Incident Number NAPP2229033410)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

To Whom It May Concern,

Triste Draw 5 Federal 001H (Incident Number NAPP2229033410)

COPC/COG Operating, LLC (COG) is requesting an extension for the current deadline of January 3, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for Triste Draw 5 Federal 001H (Incident Number NAPP2229033410). The release was discovered on October 5, 2022. Initial site assessment activities and excavation of impacted soil has been completed. Based on the most recent field screening results, COG believes all impacted soil has been removed; however, we are waiting for laboratory analytical results to confirm. In order to complete additional remediation activities if necessary and submit a remediation work plan or closure report, COG requests a 90-day extension of this deadline until April 3, 2023.

Respectfully,

Charles R. Beauvais II

Senior Environmental Engineer | Environmental Operations | **ConocoPhillips**

(M) 575-988-2043

Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 01/02/2023)
Date: Friday, December 30, 2022 11:43:06 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

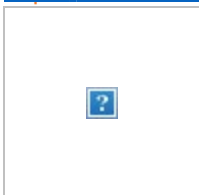
[**EXTERNAL EMAIL**]

Good Morning Kalei,

Please be aware that notification requirements are **two business days**, per rule. Please proceed on your schedule. Also, please include this, and all correspondence, in the closure report to insure inclusion in the project file.

Thank you,
Jocelyn

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Friday, December 30, 2022 10:39 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Hadlie Green <hgreen@ensolum.com>; Josh Adams <jadams@ensolum.com>
Subject: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 01/02/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

ConocoPhillips Company (COP) plans to complete final sampling activities at the following sites the week of January 2, 2023.

- Gold Coast 26 Federal 1 H/ NAPP2234636400

- Wild Cobra 1 State 002H/ NAPP2233946889
- Triste Draw 5 Federal 001H / NAPP2229033410

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC





APPENDIX E

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Patricia Zapanta</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>10/17/2022</u>

L48 Spill Volume Estimate Form

Received by OCD: 2/27/2023 2:48:36 PM

Page 161 of 166
NAPP2229033410

Number:	TRISTE DRAW 5 FED 2H, AVION FED#2, AVION FED 301 SWD LINE
Asset Area:	Northern Delaware Basin East
Release Discovery Date & Time:	10/5/2022 3:00PM MST
Release Type:	Produced Water
Provide any known details about the event:	SWD LINE LEAK

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated Pool Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	40.0	7.0	2.00	3	280.000	0.056	2.769	0.003	2.777
Rectangle B	5.0	5.0	24.00	3	25.000	0.667	2.967	0.033	3.066
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!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Released to Imaging: 6/29/2023 2:23:57 PM					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Total Volume Release:

5.842

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 151147

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 151147
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	10/17/2022

Incident ID	NAPP2229033410
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAPP2229033410
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ___Charles Beauvais_____

Title: _Senior Environmental Engineer_____

Signature: Charles R. Beauvais

Date: _2/27/2023_____

email: ___Charles.R.Beauvais@conocophillips.com___

Telephone: ___575-988-2043_____

OCD Only

Received by: Jocelyn Harimon

Date: 02/28/2023

Incident ID	NAPP2229033410
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Charles Beauvais

Title: Senior Environmental Engineer

Signature: Charles R. Beauvais

Date: 2/27/2023

email: Charles.R.Beauvais@conocophillips.com

Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon

Date: 02/28/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____

Title: _____

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 191106

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 191106
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2229033410 TRISTE DRAW 5 FEDERAL 001H, thank you. This closure is approved.	6/29/2023