ENSOLUM

February 15, 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
VGEU 30-01
Incident Number NAPP2200643457
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document excavation, soil sampling activities, and a 20-mil impermeable liner installation performed at the VGEU 30-01 (Site) as outlined in an approved *Revised Remediation Work Plan (Work Plan)*, dated November 17, 2022. The release occurred under the oversight of a former operator, but Maverick purchased the asset and is responsible for resolving soil impacts. Based on the results presented in this report, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2200643457.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 31, Township 17 South, Range 35 East, in Lea County, New Mexico (32.816111°, -103.621202°) and is associated with oil and gas exploration and production operations on New Mexico State Land (Figure 1).

On December 21, 2021, a hole in a surface flowline resulted in the release of approximately 66.4 barrels (bbls) of produced water and 7.4 bbls of crude oil into the pasture. Released fluids were unable to be recovered. The previous operator, ConocoPhillips Company (COP), reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on January 6, 2022. The release was assigned Incident Number NAPP2200643457.

Between October 14 and 18, 2022, additional delineation activities were conducted at the Site to further evaluate the vertical extent of impacted soil as per the denial from the original *Work Plan,* dated September 21, 2022. Delineation soil samples were collected from additional depths from pothole locations PH01, PH02, and PH05 ranging from 3 feet to 19 feet below ground surface (bgs). Field screening and laboratory analytical results indicated elevated total petroleum hydrocarbon (TPH) and/or chloride concentrations existed from the ground surface to 16 feet bgs beneath the release area. As a result, Maverick submitted a *Work Plan* and proposed:

(1) excavation and disposal of impacted soil from the top 4 feet of the subsurface;

(2) confirmation sampling every 200 square feet of the excavation sidewalls;

(3) installation of a 20-mil impermeable poly liner on the floor of the excavation at a depth of approximately 4 feet bgs to mitigate further vertical migration of residual chloride impacts; and

(4) backfill and recontouring of the Site to match pre-existing conditions followed by re-seeding the disturbed area with the appropriate Bureau of Land Management (BLM) seed mixture.

The *Work Plan* was approved by NMOCD on November 17, 2022, via email with no conditions. The lithologic sampling logs, laboratory analytical results and sample locations for Site delineation can be referenced in the *Work Plan.* Continuing below is a description of work completed following the approval of the *Work Plan*.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the *Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply (Figure 1):

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- TPH: 100 mg/kg
- Chloride: 600 mg/kg

EXCAVATION AND SOIL SAMPLING ACTIVITIES

Between January 11 and 18, 2023, Ensolum personnel were onsite to oversee excavation activities as detailed in the approved *Work Plan.* Excavation activities were performed via track-hoe and transport vehicles. To direct excavation activities, soil was field screened for volatile organic compounds (VOCs) with a calibrated photoionization dectector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Photographic documentation is included in Appendix A.

Following removal of impacted soil, 5-point composite excavation confirmation soil samples were collected every 200 square feet from the 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. Excavation confirmation soil samples SW01 through SW08 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. The excavation sidewall sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for confirmation soil samples SW03 and SW04 indicated all COC concentrations were compliant with Closure Criteria. Laboratory analytical results for excavation confirmation soil samples SW01, SW02, and SW05 through SW08 indicated one or more COC concentrations exceeded Closure Criteria. Laboratory analytical results are provided on Table 1 and laboratory analytical reports are included as Appendix B.

ADDITIONAL EXCAVATION AND SOIL SAMPLING ACTIVITIES

Between January 19 and 25, 2023, Ensolum personel returned to the Site to oversee additional excavation activities as warranted by laboratory analytical results for soil samples SW01, SW02, and SW05 through SW08. Excavation activities were resumed via track-hoe and transport vehicles. To direct excavation activities, soil was field screened for VOCs and chloride as previously described. Photographic documentation is included in Appendix A.

Following further removal of impacted soil, 5-point composite excavation confirmation soil samples were collected every 200 square feet from the freshly excavated sidewalls of the excavation. Excavation confirmation soil samples SW09 through SW15 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. The excavation confirmation samples were collected, handled and analyzed as previously described. The final excavation extent and excavation sidewall sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 2.

The excavation measured approximately 17,690 square feet in areal extent and approximately 4 feet bgs in depth. A total of approximately 2,620 cubic yards of impacted soil were removed during the excavation activities. The soil was transported from the Site and properly disposed of at the R360 Environmental Solutions in Hobbs, New Mexico.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for SW09 through SW15 indicated all COC concentrations were compliant with Closure Criteria. Laboratory analytical results are provided on Table 1 and laboratory analytical reports are included as Appendix B.

20-MIL IMPERMEABLE LINER INSTALLATION

A 20-mil impermeable liner has been scheduled and will be installed at approximately 4 feet bgs on the floor of the entire excavation measuring approximately 17,690 square feet. Following the liner installation, the excavation will be promptly backfilled and recontoured to match pre-existing conditions. For optimal encouragement of vegetative growth, the disturbed pasture area will be re-seeded with an approved BLM seed mixture during the next immediate growing season. Photographic documentation of the liner installation will be provided once complete.

CLOSURE REQUEST

Remediation activities were conducted as approved in the *Work Plan*. Laboratory analytical results for the final excavation confirmation sidewall soil samples indicated all COC concentrations were compliant with the Closure Criteria. Thus, the release was delineated laterally by the final excavation sidewall samples. Vertical delineation had been achieved through previous sampling activities as per the denial request for the original *Work Plan,* dated September 15, 2022. The 20-mil impermeable liner installation on the floor of the excavation will retard further migration of residual chloride impacts into the subsurface.

Maverick believes the remediation actions described above is protective of human health, the environment, groundwater, and other sensitive receptors. As such, Maverick respectfully requests closure for Incident Number NAPP2200643457. The Final C-141 is included as Appendix C.

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

Sincerely,
Ensolum, LLC

Anna Byers
Project Geologist

Kalei Jennings
Senior Scientist

cc: Bryce Wagoner, Maverick Natural Resources
New Mexico State Land Office

Appendices:

Figure 1	Site Location Map
Figure 2	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Photographic Log
Appendix B	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix C	Final C-141

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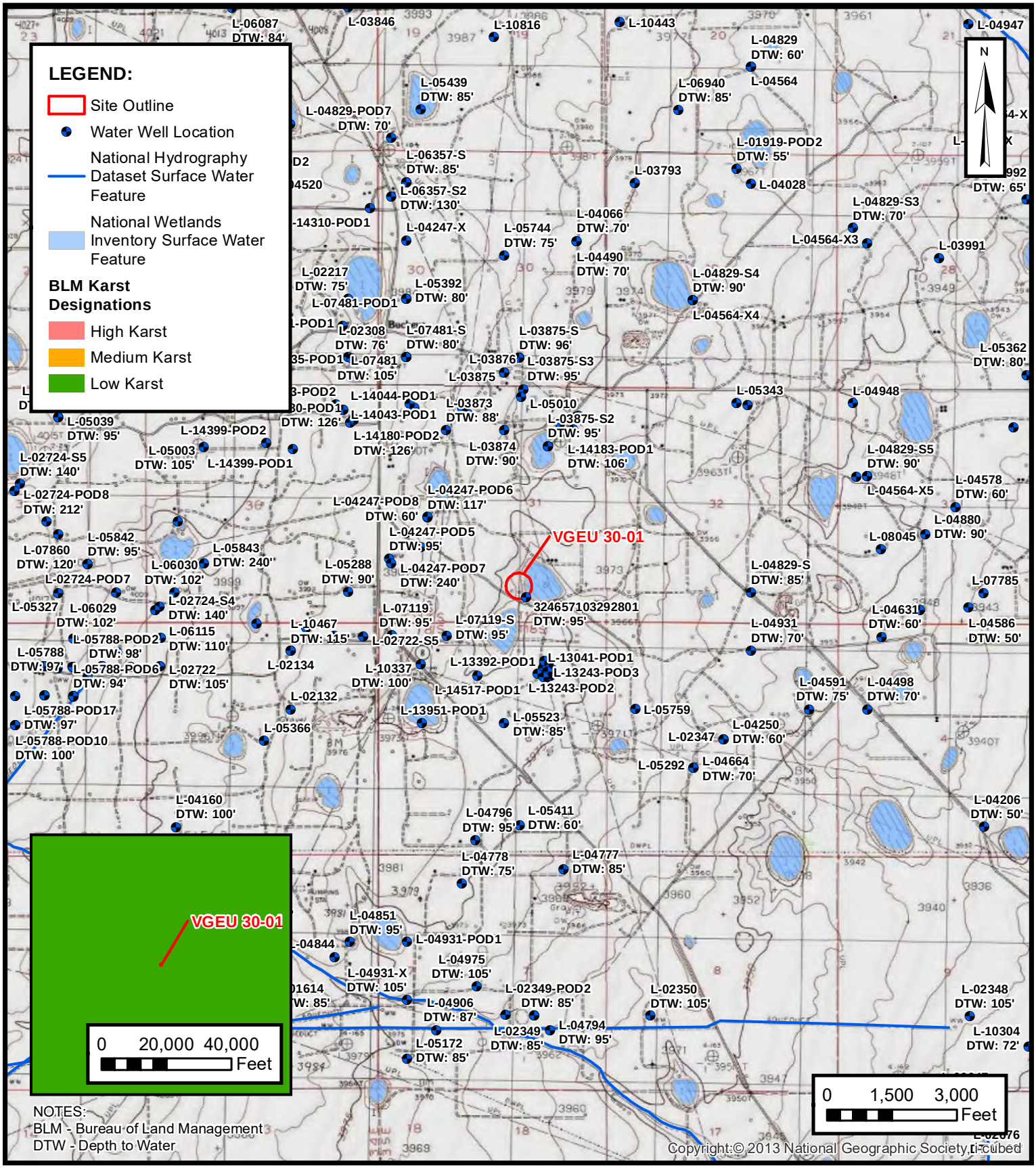
FIGURES



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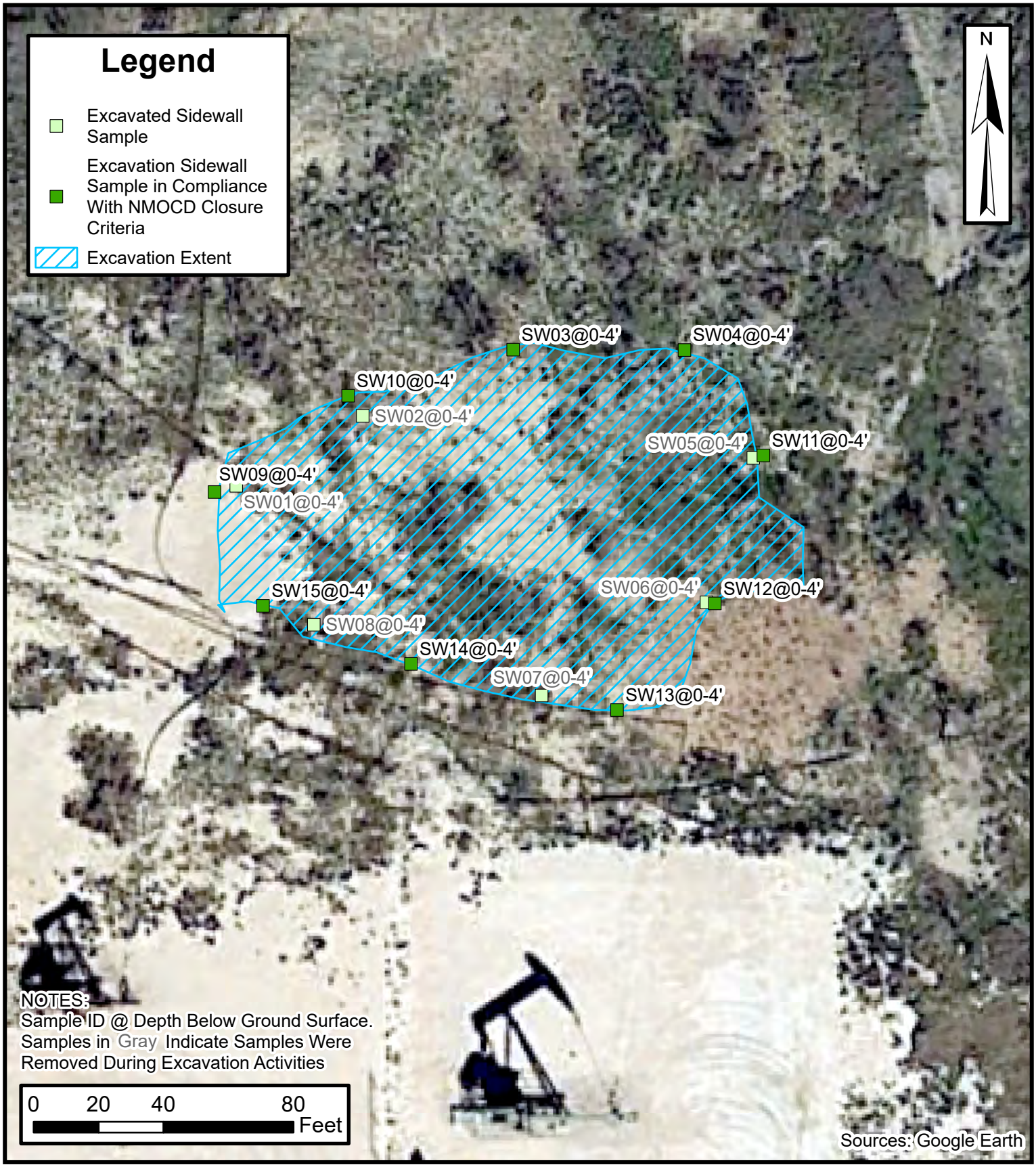
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Maverick Permian, LLC
VGEU 30-01
Incident Number: NAPP2200643457
Unit O, Sec 31, T17S, R35E
Lea County, New Mexico

FIGURE
1



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Environmental, Engineering and Hydrogeologic Consultants

Excavation Soil Sample Locations

Maverick Permian, LLC
VGEU 30-01
NAPP2200643457
Unit O, Sec 31, T17S, R35E
Lea County, New Mexico

FIGURE
2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
VGEU 30-01
Maverick Natural Resources, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
SW01	01/18/2023	0-4'	<0.00199	<0.00398	<50.0	61.5	<50.0	61.5	61.5	**4,150**
SW02	01/18/2023	0-4'	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**2,080**
SW03	01/18/2023	0-4'	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	511
SW04	01/18/2023	0-4'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	503
SW05	01/18/2023	0-4'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	**814**
SW06	01/18/2023	0-4'	<0.00200	<0.00401	<49.9	1,000	131	1,130	**1,130**	**1,070**
SW07	01/18/2023	0-4'	<0.00199	0.0104	<49.9	52.3	<49.9	52.3	52.3	**2,860**
SW08	01/18/2023	0-4'	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	**4,020**
SW09	01/25/2023	0-4'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	213
SW10	01/25/2023	0-4'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	215
SW11	01/25/2023	0-4'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	227
SW12	01/25/2023	0-4'	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	236
SW13	01/25/2023	0-4'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	227
SW14	01/25/2023	0-4'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	225
SW15	01/25/2023	0-4'	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	226

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.*

Grey text represents samples that have been excavated

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APPENDIX A

Photographic Log

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Photographic Log
Maverick Natural Resources, LLC
VGEU 30-01
Incident Number NAPP2200643457

Photograph 1 Date: 1/25/2023
Description: Final Excavation Extent

Photograph 2 Date: 1/25/2023
Description: Final Excavation Extent

Photograph 3 Date: 1/25/2023
Description: Final Excavation Extent

Photograph 4 Date: 1/25/2023
Description: Final Excavation Extent

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APPENDIX B

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/3/2023 11:13:21 AM

JOB DESCRIPTION

VGEU 30-01
SDG NUMBER 03D2057005

JOB NUMBER

890-3898-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

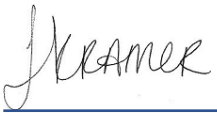
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: VGEU 30-01

Laboratory Job ID: 890-3898-1
SDG: 03D2057005

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Job ID: 890-3898-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3898-1

Receipt
The samples were received on 1/19/2023 11:42 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW01 (890-3898-1), SW02 (890-3898-2), SW03 (890-3898-3), SW04 (890-3898-4), SW05 (890-3898-5), SW06 (890-3898-6), SW07 (890-3898-7) and SW08 (890-3898-8).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SW01 (890-3898-1), SW02 (890-3898-2), SW03 (890-3898-3), SW04 (890-3898-4), SW05 (890-3898-5), SW06 (890-3898-6), SW07 (890-3898-7) and SW08 (890-3898-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-44625/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3880-A-1-F 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: SW03 (890-3898-3) and (890-3898-A-1-F MS). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44668 and analytical batch 880-44724 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: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW01

Date Collected: 01/18/23 09:40
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Lab Sample ID: 890-3898-1

Matrix: Solid

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		01/24/23 12:09	01/27/23 20:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 20:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 20:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 12:09	01/27/23 20:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 20:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/23 12:09	01/27/23 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*149*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 20:09*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/24/23 12:09*	*01/27/23 20:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/30/23 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**61.5**		50.0		mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 21:44	1
Diesel Range Organics (Over C10-C28)	**61.5**		50.0		mg/Kg		02/01/23 12:51	02/02/23 21:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/01/23 12:51*	*02/02/23 21:44*	*1*
o-Terphenyl	*93*		*70 - 130*	*02/01/23 12:51*	*02/02/23 21:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4150**	**F1**	50.0		mg/Kg			01/26/23 07:17	10

Client Sample ID: SW02

Date Collected: 01/18/23 09:45
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Lab Sample ID: 890-3898-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/24/23 12:09	01/27/23 20:37	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/24/23 12:09	01/27/23 20:37	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/24/23 12:09	01/27/23 20:37	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/24/23 12:09	01/27/23 20:37	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/24/23 12:09	01/27/23 20:37	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/24/23 12:09	01/27/23 20:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*149*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 20:37*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW02

Lab Sample ID: 890-3898-2
Matrix: Solid
Date Collected: 01/18/23 09:45
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/24/23 12:09*	*01/27/23 20:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/30/23 12:32	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			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/02/23 22:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/02/23 22:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/02/23 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/01/23 12:51*	*02/02/23 22:45*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/01/23 12:51*	*02/02/23 22:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2080**		25.2	mg/Kg			01/26/23 07:35	5

Client Sample ID: SW03

Lab Sample ID: 890-3898-3
Matrix: Solid
Date Collected: 01/18/23 09:50
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/24/23 12:09	01/27/23 21:04	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/24/23 12:09	01/27/23 21:04	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/24/23 12:09	01/27/23 21:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/24/23 12:09	01/27/23 21:04	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/24/23 12:09	01/27/23 21:04	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/24/23 12:09	01/27/23 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*156*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 21:04*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/24/23 12:09*	*01/27/23 21:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/30/23 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/03/23 11:49	1

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Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW03

Lab Sample ID: 890-3898-3
Matrix: Solid
Date Collected: 01/18/23 09:50
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 23:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 23:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*02/01/23 12:51*	*02/02/23 23:04*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*02/01/23 12:51*	*02/02/23 23:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**511**		25.0		mg/Kg			01/26/23 07:41	5

Client Sample ID: SW04

Lab Sample ID: 890-3898-4
Matrix: Solid
Date Collected: 01/18/23 09:55
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 21:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 21:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 21:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 12:09	01/27/23 21:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 21:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/23 12:09	01/27/23 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*152*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 21:32*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*01/24/23 12:09*	*01/27/23 21:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/30/23 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 23:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 23:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/02/23 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*02/01/23 12:51*	*02/02/23 23:25*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/01/23 12:51*	*02/02/23 23:25*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW04

Lab Sample ID: 890-3898-4
Matrix: Solid
Date Collected: 01/18/23 09:55
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	503		4.98		mg/Kg			01/26/23 08:00	1

Client Sample ID: SW05

Lab Sample ID: 890-3898-5
Matrix: Solid
Date Collected: 01/18/23 10:00
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 21:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 21:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 21:58	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/24/23 12:09	01/27/23 21:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 21:58	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/24/23 12:09	01/27/23 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 21:58*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/24/23 12:09*	*01/27/23 21:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/30/23 12:32	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			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/02/23 23:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/02/23 23:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/02/23 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*02/01/23 12:51*	*02/02/23 23:45*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/01/23 12:51*	*02/02/23 23:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	814		4.99		mg/Kg			01/26/23 08:06	1

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW06

Lab Sample ID: 890-3898-6
Matrix: Solid
Date Collected: 01/18/23 10:05
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 22:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 22:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 22:24	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/24/23 12:09	01/27/23 22:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 22:24	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/24/23 12:09	01/27/23 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*162*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 22:24*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*01/24/23 12:09*	*01/27/23 22:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/30/23 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1130**		49.9		mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 00:04	1
Diesel Range Organics (Over C10-C28)	**1000**		49.9		mg/Kg		02/01/23 12:51	02/03/23 00:04	1
Oil Range Organics (Over C28-C36)	**131**		49.9		mg/Kg		02/01/23 12:51	02/03/23 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*02/01/23 12:51*	*02/03/23 00:04*	*1*
o-Terphenyl	*83*		*70 - 130*	*02/01/23 12:51*	*02/03/23 00:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1070**		25.0		mg/Kg			01/26/23 08:12	5

Client Sample ID: SW07

Lab Sample ID: 890-3898-7
Matrix: Solid
Date Collected: 01/18/23 10:10
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 22:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 22:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 12:09	01/27/23 22:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 12:09	01/27/23 22:51	1
o-Xylene	**0.0104**		0.00199		mg/Kg		01/24/23 12:09	01/27/23 22:51	1
Xylenes, Total	**0.0104**		0.00398		mg/Kg		01/24/23 12:09	01/27/23 22:51	1

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW07

Date Collected: 01/18/23 10:10
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Lab Sample ID: 890-3898-7

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 22:51*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/24/23 12:09*	*01/27/23 22:51*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0104**		0.00398	mg/Kg			01/30/23 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.3**		49.9	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/03/23 00:25	1
Diesel Range Organics (Over C10-C28)	**52.3**		49.9	mg/Kg		02/01/23 12:51	02/03/23 00:25	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/03/23 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*02/01/23 12:51*	*02/03/23 00:25*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/01/23 12:51*	*02/03/23 00:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2860**		25.0	mg/Kg			01/26/23 08:18	5

Client Sample ID: SW08

Date Collected: 01/18/23 10:15
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Lab Sample ID: 890-3898-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		01/24/23 12:09	01/27/23 23:18	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/24/23 12:09	01/27/23 23:18	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/24/23 12:09	01/27/23 23:18	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/24/23 12:09	01/27/23 23:18	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/24/23 12:09	01/27/23 23:18	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/24/23 12:09	01/27/23 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*172*	*S1+*	*70 - 130*	*01/24/23 12:09*	*01/27/23 23:18*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/24/23 12:09*	*01/27/23 23:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			01/30/23 12:32	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			02/03/23 11:49	1

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Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW08

Date Collected: 01/18/23 10:15
Date Received: 01/19/23 11:42
Sample Depth: 0-4'

Lab Sample ID: 890-3898-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 00:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 00:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*02/01/23 12:51*	*02/03/23 00:45*	*1*
o-Terphenyl	*91*		*70 - 130*	*02/01/23 12:51*	*02/03/23 00:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4020**		50.1		mg/Kg			01/26/23 08:24	10

Surrogate Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

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)
890-3880-A-1-E MS	Matrix Spike	129	95
890-3880-A-1-F MSD	Matrix Spike Duplicate	138 S1+	95
890-3898-1	SW01	149 S1+	91
890-3898-2	SW02	149 S1+	90
890-3898-3	SW03	156 S1+	90
890-3898-4	SW04	152 S1+	85
890-3898-5	SW05	144 S1+	89
890-3898-6	SW06	162 S1+	85
890-3898-7	SW07	153 S1+	88
890-3898-8	SW08	172 S1+	92
LCS 880-44625/1-A	Lab Control Sample	131 S1+	99
LCSD 880-44625/2-A	Lab Control Sample Dup	124	102
MB 880-44625/5-A	Method Blank	88	83

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)
890-3898-1	SW01	96	93
890-3898-1 MS	SW01	81	69 S1-
890-3898-1 MSD	SW01	86	70
890-3898-2	SW02	85	82
890-3898-3	SW03	73	66 S1-
890-3898-4	SW04	78	72
890-3898-5	SW05	91	87
890-3898-6	SW06	92	83
890-3898-7	SW07	86	82
890-3898-8	SW08	92	91
LCS 880-45202/2-A	Lab Control Sample	87	78
LCSD 880-45202/3-A	Lab Control Sample Dup	89	79
MB 880-45202/1-A	Method Blank	95	94

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44625/5-A
Matrix: Solid
Analysis Batch: 44889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44625

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 12:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 12:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 12:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/23 12:09	01/27/23 12:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 12:09	01/27/23 12:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/23 12:09	01/27/23 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*01/24/23 12:09*	*01/27/23 12:24*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/24/23 12:09*	*01/27/23 12:24*	*1*

Lab Sample ID: LCS 880-44625/1-A
Matrix: Solid
Analysis Batch: 44889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44625

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1090		mg/Kg		109	70 - 130		
Toluene			0.100	0.1121		mg/Kg		112	70 - 130		
Ethylbenzene			0.100	0.1157		mg/Kg		116	70 - 130		
m-Xylene & p-Xylene			0.200	0.2386		mg/Kg		119	70 - 130		
o-Xylene			0.100	0.1195		mg/Kg		119	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-44625/2-A
Matrix: Solid
Analysis Batch: 44889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44625

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1136		mg/Kg		114	70 - 130	4	35
Toluene			0.100	0.1013		mg/Kg		101	70 - 130	10	35
Ethylbenzene			0.100	0.1050		mg/Kg		105	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2128		mg/Kg		106	70 - 130	11	35
o-Xylene			0.100	0.1073		mg/Kg		107	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3880-A-1-E MS
Matrix: Solid
Analysis Batch: 44889

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44625

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.101	0.1074		mg/Kg		107	70 - 130		
Toluene	<0.00201	U	0.101	0.09370		mg/Kg		93	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

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

Lab Sample ID: 890-3880-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44889 — **Prep Batch: 44625**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.09485		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1976		mg/Kg		98	70 - 130
o-Xylene	<0.00201	U	0.101	0.09993		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-3880-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 44889 — **Prep Batch: 44625**

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	0.1039		mg/Kg		105	70 - 130	3	35
Toluene	<0.00201	U	0.0990	0.09077		mg/Kg		92	70 - 130	3	35
Ethylbenzene	<0.00201	U	0.0990	0.08913		mg/Kg		90	70 - 130	6	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1880		mg/Kg		95	70 - 130	5	35
o-Xylene	<0.00201	U	0.0990	0.09630		mg/Kg		97	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

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

Lab Sample ID: MB 880-45202/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45222 — **Prep Batch: 45202**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/02/23 20:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/02/23 20:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/02/23 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/01/23 12:51*	*02/02/23 20:43*	*1*
o-Terphenyl	*94*		*70 - 130*	*02/01/23 12:51*	*02/02/23 20:43*	*1*

Lab Sample ID: LCS 880-45202/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45222 — **Prep Batch: 45202**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	777.2		mg/Kg		78	70 - 130
Diesel Range Organics (Over C10-C28)	999	928.8		mg/Kg		93	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

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

Lab Sample ID: LCS 880-45202/2-A
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45202

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	78		70 - 130

Lab Sample ID: LCSD 880-45202/3-A
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45202

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	761.0		mg/Kg		76	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			999	903.5		mg/Kg		90	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	79		70 - 130

Lab Sample ID: 890-3898-1 MS
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 45202

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	852.2		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	61.5		1000	839.9		mg/Kg		78	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-3898-1 MSD
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: SW01
Prep Type: Total/NA
Prep Batch: 45202

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	868.7		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	61.5		998	856.1		mg/Kg		80	70 - 130	2	20

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

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44668/1-A
Matrix: Solid
Analysis Batch: 44724

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/26/23 05:32	1

Lab Sample ID: LCS 880-44668/2-A
Matrix: Solid
Analysis Batch: 44724

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	274.3		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-44668/3-A
Matrix: Solid
Analysis Batch: 44724

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	273.2		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 890-3898-1 MS
Matrix: Solid
Analysis Batch: 44724

Client Sample ID: SW01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	4150	F1	2500	7279	F1	mg/Kg		125	90 - 110		

Lab Sample ID: 890-3898-1 MSD
Matrix: Solid
Analysis Batch: 44724

Client Sample ID: SW01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4150	F1	2500	7272	F1	mg/Kg		125	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

GC VOA

Prep Batch: 44625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Total/NA	Solid	5035	
890-3898-2	SW02	Total/NA	Solid	5035	
890-3898-3	SW03	Total/NA	Solid	5035	
890-3898-4	SW04	Total/NA	Solid	5035	
890-3898-5	SW05	Total/NA	Solid	5035	
890-3898-6	SW06	Total/NA	Solid	5035	
890-3898-7	SW07	Total/NA	Solid	5035	
890-3898-8	SW08	Total/NA	Solid	5035	
MB 880-44625/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44625/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44625/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3880-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-3880-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 44889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Total/NA	Solid	8021B	44625
890-3898-2	SW02	Total/NA	Solid	8021B	44625
890-3898-3	SW03	Total/NA	Solid	8021B	44625
890-3898-4	SW04	Total/NA	Solid	8021B	44625
890-3898-5	SW05	Total/NA	Solid	8021B	44625
890-3898-6	SW06	Total/NA	Solid	8021B	44625
890-3898-7	SW07	Total/NA	Solid	8021B	44625
890-3898-8	SW08	Total/NA	Solid	8021B	44625
MB 880-44625/5-A	Method Blank	Total/NA	Solid	8021B	44625
LCS 880-44625/1-A	Lab Control Sample	Total/NA	Solid	8021B	44625
LCSD 880-44625/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44625
890-3880-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	44625
890-3880-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44625

Analysis Batch: 45047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Total/NA	Solid	Total BTEX	
890-3898-2	SW02	Total/NA	Solid	Total BTEX	
890-3898-3	SW03	Total/NA	Solid	Total BTEX	
890-3898-4	SW04	Total/NA	Solid	Total BTEX	
890-3898-5	SW05	Total/NA	Solid	Total BTEX	
890-3898-6	SW06	Total/NA	Solid	Total BTEX	
890-3898-7	SW07	Total/NA	Solid	Total BTEX	
890-3898-8	SW08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Total/NA	Solid	8015NM Prep	
890-3898-2	SW02	Total/NA	Solid	8015NM Prep	
890-3898-3	SW03	Total/NA	Solid	8015NM Prep	
890-3898-4	SW04	Total/NA	Solid	8015NM Prep	
890-3898-5	SW05	Total/NA	Solid	8015NM Prep	
890-3898-6	SW06	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

GC Semi VOA (Continued)

Prep Batch: 45202 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-7	SW07	Total/NA	Solid	8015NM Prep	
890-3898-8	SW08	Total/NA	Solid	8015NM Prep	
MB 880-45202/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45202/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45202/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3898-1 MS	SW01	Total/NA	Solid	8015NM Prep	
890-3898-1 MSD	SW01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Total/NA	Solid	8015B NM	45202
890-3898-2	SW02	Total/NA	Solid	8015B NM	45202
890-3898-3	SW03	Total/NA	Solid	8015B NM	45202
890-3898-4	SW04	Total/NA	Solid	8015B NM	45202
890-3898-5	SW05	Total/NA	Solid	8015B NM	45202
890-3898-6	SW06	Total/NA	Solid	8015B NM	45202
890-3898-7	SW07	Total/NA	Solid	8015B NM	45202
890-3898-8	SW08	Total/NA	Solid	8015B NM	45202
MB 880-45202/1-A	Method Blank	Total/NA	Solid	8015B NM	45202
LCS 880-45202/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45202
LCSD 880-45202/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45202
890-3898-1 MS	SW01	Total/NA	Solid	8015B NM	45202
890-3898-1 MSD	SW01	Total/NA	Solid	8015B NM	45202

Analysis Batch: 45391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Total/NA	Solid	8015 NM	
890-3898-2	SW02	Total/NA	Solid	8015 NM	
890-3898-3	SW03	Total/NA	Solid	8015 NM	
890-3898-4	SW04	Total/NA	Solid	8015 NM	
890-3898-5	SW05	Total/NA	Solid	8015 NM	
890-3898-6	SW06	Total/NA	Solid	8015 NM	
890-3898-7	SW07	Total/NA	Solid	8015 NM	
890-3898-8	SW08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Soluble	Solid	DI Leach	
890-3898-2	SW02	Soluble	Solid	DI Leach	
890-3898-3	SW03	Soluble	Solid	DI Leach	
890-3898-4	SW04	Soluble	Solid	DI Leach	
890-3898-5	SW05	Soluble	Solid	DI Leach	
890-3898-6	SW06	Soluble	Solid	DI Leach	
890-3898-7	SW07	Soluble	Solid	DI Leach	
890-3898-8	SW08	Soluble	Solid	DI Leach	
MB 880-44668/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44668/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44668/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3898-1 MS	SW01	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

HPLC/IC (Continued)

Leach Batch: 44668 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1 MSD	SW01	Soluble	Solid	DI Leach	

Analysis Batch: 44724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3898-1	SW01	Soluble	Solid	300.0	44668
890-3898-2	SW02	Soluble	Solid	300.0	44668
890-3898-3	SW03	Soluble	Solid	300.0	44668
890-3898-4	SW04	Soluble	Solid	300.0	44668
890-3898-5	SW05	Soluble	Solid	300.0	44668
890-3898-6	SW06	Soluble	Solid	300.0	44668
890-3898-7	SW07	Soluble	Solid	300.0	44668
890-3898-8	SW08	Soluble	Solid	300.0	44668
MB 880-44668/1-A	Method Blank	Soluble	Solid	300.0	44668
LCS 880-44668/2-A	Lab Control Sample	Soluble	Solid	300.0	44668
LCSD 880-44668/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44668
890-3898-1 MS	SW01	Soluble	Solid	300.0	44668
890-3898-1 MSD	SW01	Soluble	Solid	300.0	44668

Lab Chronicle

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW01

Date Collected: 01/18/23 09:40
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-1
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	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 20:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 21:44	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		10			44724	01/26/23 07:17	CH	EET MID

Client Sample ID: SW02

Date Collected: 01/18/23 09:45
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 20:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 22:45	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		5			44724	01/26/23 07:35	CH	EET MID

Client Sample ID: SW03

Date Collected: 01/18/23 09:50
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 21:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 23:04	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		5			44724	01/26/23 07:41	CH	EET MID

Client Sample ID: SW04

Date Collected: 01/18/23 09:55
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 21:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW04

Date Collected: 01/18/23 09:55
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-4

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			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 23:25	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		1			44724	01/26/23 08:00	CH	EET MID

Client Sample ID: SW05

Date Collected: 01/18/23 10:00
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-5

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			5.01 g	5 mL	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 21:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/02/23 23:45	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		1			44724	01/26/23 08:06	CH	EET MID

Client Sample ID: SW06

Date Collected: 01/18/23 10:05
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 22:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 00:04	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		5			44724	01/26/23 08:12	CH	EET MID

Client Sample ID: SW07

Date Collected: 01/18/23 10:10
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-7

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	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 22:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 00:25	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Client Sample ID: SW07

Date Collected: 01/18/23 10:10
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		5			44724	01/26/23 08:18	CH	EET MID

Client Sample ID: SW08

Date Collected: 01/18/23 10:15
Date Received: 01/19/23 11:42

Lab Sample ID: 890-3898-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	44625	01/24/23 12:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44889	01/27/23 23:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45047	01/30/23 12:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			45391	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 00:45	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44668	01/24/23 15:28	KS	EET MID
Soluble	Analysis	300.0		10			44724	01/26/23 08:24	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: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3898-1
SDG: 03D2057005

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3898-1	SW01	Solid	01/18/23 09:40	01/19/23 11:42	0-4'
890-3898-2	SW02	Solid	01/18/23 09:45	01/19/23 11:42	0-4'
890-3898-3	SW03	Solid	01/18/23 09:50	01/19/23 11:42	0-4'
890-3898-4	SW04	Solid	01/18/23 09:55	01/19/23 11:42	0-4'
890-3898-5	SW05	Solid	01/18/23 10:00	01/19/23 11:42	0-4'
890-3898-6	SW06	Solid	01/18/23 10:05	01/19/23 11:42	0-4'
890-3898-7	SW07	Solid	01/18/23 10:10	01/19/23 11:42	0-4'
890-3898-8	SW08	Solid	01/18/23 10:15	01/19/23 11:42	0-4'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.com

Work Order Comments

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

Project Name:	VGEU 30-01	Turn Around	
Project Number:	03D2057005	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Connor Whitman	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TAM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

ANALYSIS REQUEST

Pres. Code | Parameters: CHLORIDES (EPA: 300.0) | TPH (8015) | BTEX (8021)

890-3898 Chain of Custody

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont
SW01	S	1/18/23	9:40	0-4'	C	1
SW02			9:45			1
SW03			9:50			1
SW04			9:55			1
SW05			10:00			1
SW06			10:05			1
SW07			10:10			1
SW08			10:15			1

Sample Comments

Incident ID:
NAPP2200643457
Cost Center:
AFE:

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

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

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

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

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3898-1
SDG Number: 03D2057005

Login Number: 3898
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: 890-3898-1
SDG Number: 03D2057005

Login Number: 3898
List Number: 2
Creator: Rodriguez, Leticia

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

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/13/2023 10:16:57 AM Revision 2

JOB DESCRIPTION

VGEU 30-01
SDG NUMBER Lea County NM

JOB NUMBER

890-3958-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

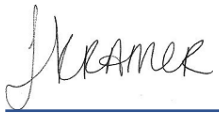
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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2/13/2023 10:16:57 AM
Revision 2

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

Client: Ensolum
Project/Site: VGEU 30-01

Laboratory Job ID: 890-3958-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
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.

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: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Job ID: 890-3958-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3958-1

REVISION

The report being provided is a revision of the original report sent on 2/9/2023. The report (revision 2) is being revised due to Per client email, samples 027-033 need to be on separate report.

Report revision history

The report being provided is a revision of the original report sent on 2/9/2023. The report (revision 2) is being revised due to Per client email, samples 027-033 need to be on separate report.
Revision 1 - 2/9/2023 - Reason - Per client email, requesting sample ID changes.

Receipt
The samples were received on 1/25/2023 3:32 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS27 (890-3958-1), FS28 (890-3958-2), FS29 (890-3958-3), FS30 (890-3958-4), FS31 (890-3958-5), FS32 (890-3958-6), FS33 (890-3958-7), FS34 (890-3958-8), FS35 (890-3958-9), FS36 (890-3958-10), FS37 (890-3958-11), FS38 (890-3958-12), FS39 (890-3958-13), FS40 (890-3958-14), FS41 (890-3958-15), FS42 (890-3958-16), FS43 (890-3958-17), FS44 (890-3958-18), FS45 (890-3958-19), FS46 (890-3958-20), FS47 (890-3958-21), FS48 (890-3958-22), FS49 (890-3958-23), FS50 (890-3958-24), FS51 (890-3958-25), FS52 (890-3958-26), SW09 (890-3958-27), SW10 (890-3958-28), SW11 (890-3958-29), SW12 (890-3958-30), SW13 (890-3958-31), SW14 (890-3958-32) and SW15 (890-3958-33).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SW10 (890-3958-28), SW11 (890-3958-29), SW12 (890-3958-30) and SW13 (890-3958-31). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW09
Date Collected: 01/25/23 12:30
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-27
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:18	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:18	1
Ethylbenzene	<0.00199	U *-	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:18	1
m-Xylene & p-Xylene	<0.00398	U *-	0.00398		mg/Kg		02/03/23 12:56	02/05/23 20:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:18	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/23 12:56	02/05/23 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*02/03/23 12:56*	*02/05/23 20:18*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/03/23 12:56*	*02/05/23 20:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/06/23 12:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 13:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 13:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/06/23 16:38*	*02/08/23 13:53*	*1*
o-Terphenyl	*92*		*70 - 130*	*02/06/23 16:38*	*02/08/23 13:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**213**		4.95		mg/Kg			02/02/23 18:29	1

Client Sample ID: SW10
Date Collected: 01/25/23 12:35
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-28
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:39	1
Ethylbenzene	<0.00199	U *-	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:39	1
m-Xylene & p-Xylene	<0.00398	U *-	0.00398		mg/Kg		02/03/23 12:56	02/05/23 20:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 20:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/23 12:56	02/05/23 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*40*	*S1-*	*70 - 130*	*02/03/23 12:56*	*02/05/23 20:39*	*1*

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW10
Date Collected: 01/25/23 12:35
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-28
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/03/23 12:56*	*02/05/23 20:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/06/23 12:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 14:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 14:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/06/23 16:38*	*02/08/23 14:14*	*1*
o-Terphenyl	*107*		*70 - 130*	*02/06/23 16:38*	*02/08/23 14:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**215**		5.02	mg/Kg			02/02/23 18:34	1

Client Sample ID: SW11
Date Collected: 01/25/23 12:40
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-29
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/03/23 12:56	02/05/23 21:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/03/23 12:56	02/05/23 21:00	1
Ethylbenzene	<0.00200	U *-	0.00200	mg/Kg		02/03/23 12:56	02/05/23 21:00	1
m-Xylene & p-Xylene	<0.00399	U *-	0.00399	mg/Kg		02/03/23 12:56	02/05/23 21:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/03/23 12:56	02/05/23 21:00	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/03/23 12:56	02/05/23 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*02/03/23 12:56*	*02/05/23 21:00*	*1*
1,4-Difluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*02/03/23 12:56*	*02/05/23 21:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/06/23 12:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/09/23 09:20	1

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW11
Date Collected: 01/25/23 12:40
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-29
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 14:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 14:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/06/23 16:38*	*02/08/23 14:36*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/06/23 16:38*	*02/08/23 14:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**227**		4.99		mg/Kg			02/02/23 18:39	1

Client Sample ID: SW12
Date Collected: 01/25/23 12:45
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-30
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:56	02/05/23 21:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:56	02/05/23 21:21	1
Ethylbenzene	<0.00200	U *-	0.00200		mg/Kg		02/03/23 12:56	02/05/23 21:21	1
m-Xylene & p-Xylene	<0.00401	U *-	0.00401		mg/Kg		02/03/23 12:56	02/05/23 21:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:56	02/05/23 21:21	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/03/23 12:56	02/05/23 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/03/23 12:56*	*02/05/23 21:21*	*1*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*02/03/23 12:56*	*02/05/23 21:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/06/23 12:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 14:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 14:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*02/06/23 16:38*	*02/08/23 14:58*	*1*
o-Terphenyl	*111*		*70 - 130*	*02/06/23 16:38*	*02/08/23 14:58*	*1*

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW12
Date Collected: 01/25/23 12:45
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-30
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	236		5.05		mg/Kg			02/02/23 18:53	1

Client Sample ID: SW13
Date Collected: 01/25/23 12:50
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-31
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 21:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 21:42	1
Ethylbenzene	<0.00199	U *-	0.00199		mg/Kg		02/03/23 12:56	02/05/23 21:42	1
m-Xylene & p-Xylene	<0.00398	U *-	0.00398		mg/Kg		02/03/23 12:56	02/05/23 21:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 21:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/23 12:56	02/05/23 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/03/23 12:56*	*02/05/23 21:42*	*1*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*02/03/23 12:56*	*02/05/23 21:42*	*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			02/06/23 12:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 16:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 16:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/06/23 16:38*	*02/08/23 16:34*	*1*
o-Terphenyl	*101*		*70 - 130*	*02/06/23 16:38*	*02/08/23 16:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	227		4.96		mg/Kg			02/02/23 18:57	1

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW14
Date Collected: 01/25/23 12:55
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-32
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 22:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 22:03	1
Ethylbenzene	<0.00199	U *-	0.00199		mg/Kg		02/03/23 12:56	02/05/23 22:03	1
m-Xylene & p-Xylene	<0.00398	U *-	0.00398		mg/Kg		02/03/23 12:56	02/05/23 22:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/23 12:56	02/05/23 22:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/23 12:56	02/05/23 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/03/23 12:56*	*02/05/23 22:03*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*02/03/23 12:56*	*02/05/23 22:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/06/23 12:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 16:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 16:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*02/06/23 16:38*	*02/08/23 16:56*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/06/23 16:38*	*02/08/23 16:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**225**		5.02		mg/Kg			02/02/23 19:11	1

Client Sample ID: SW15
Date Collected: 01/25/23 13:00
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-33
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 14:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 14:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 14:36	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/05/23 10:08	02/05/23 14:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 14:36	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/05/23 10:08	02/05/23 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*02/05/23 10:08*	*02/05/23 14:36*	*1*

Client Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW15
Date Collected: 01/25/23 13:00
Date Received: 01/25/23 15:32
Sample Depth: 0-4'

Lab Sample ID: 890-3958-33
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/05/23 10:08*	*02/05/23 14:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 17:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 17:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/06/23 16:38*	*02/08/23 17:18*	*1*
o-Terphenyl	*103*		*70 - 130*	*02/06/23 16:38*	*02/08/23 17:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**226**		4.95	mg/Kg			02/02/23 19:16	1

Surrogate Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
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)
890-3958-27	SW09	119	94
890-3958-28	SW10	40 S1-	105
890-3958-29	SW11	79	67 S1-
890-3958-30	SW12	105	69 S1-
890-3958-31	SW13	111	69 S1-
890-3958-32	SW14	116	80
890-3958-33	SW15	95	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)
890-3958-27	SW09	85	92
890-3958-28	SW10	101	107
890-3958-29	SW11	98	102
890-3958-30	SW12	107	111
890-3958-31	SW13	88	101
890-3958-32	SW14	103	108
890-3958-33	SW15	101	103

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44921/5-A
Matrix: Solid
Analysis Batch: 45310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44921

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:20	02/03/23 23:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:20	02/03/23 23:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:20	02/03/23 23:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/27/23 12:20	02/03/23 23:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/23 12:20	02/03/23 23:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/27/23 12:20	02/03/23 23:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*01/27/23 12:20*	*02/03/23 23:11*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/27/23 12:20*	*02/03/23 23:11*	*1*

Lab Sample ID: MB 880-45395/5-A
Matrix: Solid
Analysis Batch: 45310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45395

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:53	02/04/23 10:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:53	02/04/23 10:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:53	02/04/23 10:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/03/23 12:53	02/04/23 10:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:53	02/04/23 10:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/23 12:53	02/04/23 10:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*54*	*S1-*	*70 - 130*	*02/03/23 12:53*	*02/04/23 10:59*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*02/03/23 12:53*	*02/04/23 10:59*	*1*

Lab Sample ID: LCS 880-45395/1-A
Matrix: Solid
Analysis Batch: 45310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45395

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08286		mg/Kg		83	70 - 130		
Toluene			0.100	0.07417		mg/Kg		74	70 - 130		
Ethylbenzene			0.100	0.06654	*-	mg/Kg		67	70 - 130		
m-Xylene & p-Xylene			0.200	0.1351	*-	mg/Kg		68	70 - 130		
o-Xylene			0.100	0.07078		mg/Kg		71	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-45395/2-A
Matrix: Solid
Analysis Batch: 45310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45395

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09420		mg/Kg		94	70 - 130	13	35

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-45395/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45310 — **Prep Batch: 45395**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08236		mg/Kg		82	70 - 130	10	35
Ethylbenzene			0.100	0.07400		mg/Kg		74	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1494		mg/Kg		75	70 - 130	10	35
o-Xylene			0.100	0.07800		mg/Kg		78	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-3958-1 MS — **Client Sample ID: FS27**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45310 — **Prep Batch: 45395**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.100	0.08908		mg/Kg		89	70 - 130
Toluene	<0.00201	U	0.100	0.08107		mg/Kg		81	70 - 130
Ethylbenzene	<0.00201	U *-	0.100	0.07542		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	<0.00402	U *- F1	0.200	0.1387	F1	mg/Kg		69	70 - 130
o-Xylene	<0.00201	U	0.100	0.08245		mg/Kg		82	70 - 130

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

Lab Sample ID: 890-3958-1 MSD — **Client Sample ID: FS27**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45310 — **Prep Batch: 45395**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.06479	F1	mg/Kg		65	70 - 130	32	35
Toluene	<0.00201	U	0.0990	0.07195		mg/Kg		73	70 - 130	12	35
Ethylbenzene	<0.00201	U *-	0.0990	0.07842		mg/Kg		79	70 - 130	4	35
m-Xylene & p-Xylene	<0.00402	U *- F1	0.198	0.1436		mg/Kg		73	70 - 130	3	35
o-Xylene	<0.00201	U	0.0990	0.08516		mg/Kg		86	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: MB 880-45396/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45523 — **Prep Batch: 45396**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:56	02/05/23 14:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:56	02/05/23 14:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:56	02/05/23 14:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/03/23 12:56	02/05/23 14:00	1

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-45396/5-A
Matrix: Solid
Analysis Batch: 45523

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45396

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:56	02/05/23 14:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/23 12:56	02/05/23 14:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/03/23 12:56*	*02/05/23 14:00*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*02/03/23 12:56*	*02/05/23 14:00*	*1*

Lab Sample ID: LCS 880-45396/1-A
Matrix: Solid
Analysis Batch: 45523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45396

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09252		mg/Kg		93	70 - 130		
Toluene			0.100	0.09025		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08293		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1648		mg/Kg		82	70 - 130		
o-Xylene			0.100	0.08589		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*

Lab Sample ID: LCSD 880-45396/2-A
Matrix: Solid
Analysis Batch: 45523

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45396

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.07424		mg/Kg		74	70 - 130	22	35
Toluene			0.100	0.07334		mg/Kg		73	70 - 130	21	35
Ethylbenzene			0.100	0.06857	*-	mg/Kg		69	70 - 130	19	35
m-Xylene & p-Xylene			0.200	0.1382	*-	mg/Kg		69	70 - 130	18	35
o-Xylene			0.100	0.07271		mg/Kg		73	70 - 130	17	35

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

Lab Sample ID: 880-24111-A-1-E MS
Matrix: Solid
Analysis Batch: 45523

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F1	0.0996	0.05612	F1	mg/Kg		56	70 - 130		
Toluene	<0.00200	U F1	0.0996	0.05983	F1	mg/Kg		60	70 - 130		
Ethylbenzene	<0.00200	U *- F1	0.0996	0.06200	F1	mg/Kg		62	70 - 130		
m-Xylene & p-Xylene	<0.00401	U *- F1	0.199	0.1270	F1	mg/Kg		64	70 - 130		
o-Xylene	<0.00200	U F1	0.0996	0.06641	F1	mg/Kg		67	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: 880-24111-A-1-E MS
Matrix: Solid
Analysis Batch: 45523

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45396

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

Lab Sample ID: 880-24111-A-1-F MSD
Matrix: Solid
Analysis Batch: 45523

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0990	0.07330		mg/Kg		74	70 - 130	27	35
Toluene	<0.00200	U F1	0.0990	0.06561	F1	mg/Kg		66	70 - 130	9	35
Ethylbenzene	<0.00200	U *- F1	0.0990	0.05852	F1	mg/Kg		59	70 - 130	6	35
m-Xylene & p-Xylene	<0.00401	U *- F1	0.198	0.09570	F1	mg/Kg		48	70 - 130	28	35
o-Xylene	<0.00200	U F1	0.0990	0.06124	F1	mg/Kg		62	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: MB 880-45527/5-A
Matrix: Solid
Analysis Batch: 45526

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45527

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 13:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 13:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 13:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/05/23 10:08	02/05/23 13:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/05/23 10:08	02/05/23 13:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/05/23 10:08	02/05/23 13:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130	02/05/23 10:08	02/05/23 13:43	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/05/23 10:08	02/05/23 13:43	1

Lab Sample ID: LCS 880-45527/1-A
Matrix: Solid
Analysis Batch: 45526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45527

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08150		mg/Kg		82	70 - 130		
Toluene			0.100	0.07937		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.07973		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene			0.200	0.1583		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.08259		mg/Kg		83	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-45527/1-A
Matrix: Solid
Analysis Batch: 45526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45527

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

Lab Sample ID: LCSD 880-45527/2-A
Matrix: Solid
Analysis Batch: 45526

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45527

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08638		mg/Kg		86	70 - 130	6	35
Toluene			0.100	0.08534		mg/Kg		85	70 - 130	7	35
Ethylbenzene			0.100	0.08349		mg/Kg		83	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1640		mg/Kg		82	70 - 130	4	35
o-Xylene			0.100	0.08479		mg/Kg		85	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	81		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-3960-A-1-E MS
Matrix: Solid
Analysis Batch: 45526

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45527

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.1228		mg/Kg		123	70 - 130		
Toluene	<0.00201	U	0.100	0.1122		mg/Kg		112	70 - 130		
Ethylbenzene	<0.00201	U	0.100	0.1024		mg/Kg		102	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2174		mg/Kg		108	70 - 130		
o-Xylene	<0.00201	U	0.100	0.1085		mg/Kg		108	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 890-3960-A-1-F MSD
Matrix: Solid
Analysis Batch: 45526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45527

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	0.09271		mg/Kg		94	70 - 130	28	35
Toluene	<0.00201	U	0.0990	0.08533		mg/Kg		86	70 - 130	27	35
Ethylbenzene	<0.00201	U	0.0990	0.08423		mg/Kg		85	70 - 130	19	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1637		mg/Kg		83	70 - 130	28	35
o-Xylene	<0.00201	U	0.0990	0.08138		mg/Kg		82	70 - 130	29	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	74		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-45550/5-A
Matrix: Solid
Analysis Batch: 45543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45550

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/23 08:20	02/06/23 11:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/23 08:20	02/06/23 11:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/06/23 08:20	02/06/23 11:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/06/23 08:20	02/06/23 11:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/06/23 08:20	02/06/23 11:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/06/23 08:20	02/06/23 11:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/06/23 08:20*	*02/06/23 11:34*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/06/23 08:20*	*02/06/23 11:34*	*1*

Lab Sample ID: LCS 880-45550/1-A
Matrix: Solid
Analysis Batch: 45543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45550

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1110		mg/Kg		111	70 - 130		
Toluene			0.100	0.1021		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.09568		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.1836		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09636		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-45550/2-A
Matrix: Solid
Analysis Batch: 45543

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45550

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1173		mg/Kg		117	70 - 130	5	35
Toluene			0.100	0.1075		mg/Kg		108	70 - 130	5	35
Ethylbenzene			0.100	0.09954		mg/Kg		100	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1915		mg/Kg		96	70 - 130	4	35
o-Xylene			0.100	0.1010		mg/Kg		101	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-3958-11 MS
Matrix: Solid
Analysis Batch: 45543

Client Sample ID: FS37
Prep Type: Total/NA
Prep Batch: 45550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.101	0.1117		mg/Kg		111	70 - 130		
Toluene	<0.00202	U	0.101	0.1017		mg/Kg		101	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: 890-3958-11 MS
Matrix: Solid
Analysis Batch: 45543

Client Sample ID: FS37
Prep Type: Total/NA
Prep Batch: 45550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.101	0.1024		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.202	0.2003		mg/Kg		99	70 - 130
o-Xylene	<0.00202	U	0.101	0.09987		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-3958-11 MSD
Matrix: Solid
Analysis Batch: 45543

Client Sample ID: FS37
Prep Type: Total/NA
Prep Batch: 45550

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.09848		mg/Kg		99	70 - 130	13	35
Toluene	<0.00202	U	0.0990	0.09369		mg/Kg		95	70 - 130	8	35
Ethylbenzene	<0.00202	U	0.0990	0.08634		mg/Kg		87	70 - 130	17	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1696		mg/Kg		86	70 - 130	17	35
o-Xylene	<0.00202	U	0.0990	0.08644		mg/Kg		87	70 - 130	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

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

Lab Sample ID: MB 880-45379/1-A
Matrix: Solid
Analysis Batch: 45479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45379

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/03/23 11:41	02/05/23 20:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/03/23 11:41	02/05/23 20:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/03/23 11:41	02/05/23 20:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*02/03/23 11:41*	*02/05/23 20:47*	*1*
o-Terphenyl	*122*		*70 - 130*	*02/03/23 11:41*	*02/05/23 20:47*	*1*

Lab Sample ID: LCS 880-45379/2-A
Matrix: Solid
Analysis Batch: 45479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45379

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			999	956.4		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)			999	854.6		mg/Kg		86	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-45379/2-A
Matrix: Solid
Analysis Batch: 45479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45379

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-45379/3-A
Matrix: Solid
Analysis Batch: 45479

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45379

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	874.8		mg/Kg		88	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			999	927.3		mg/Kg		93	70 - 130	8	20

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

Lab Sample ID: 890-3958-1 MS
Matrix: Solid
Analysis Batch: 45479

Client Sample ID: FS27
Prep Type: Total/NA
Prep Batch: 45379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	938.6		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1031		mg/Kg		101	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 890-3958-1 MSD
Matrix: Solid
Analysis Batch: 45479

Client Sample ID: FS27
Prep Type: Total/NA
Prep Batch: 45379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	846.0		mg/Kg		83	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	919.7		mg/Kg		90	70 - 130	11	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	100		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-45638/1-A
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45638

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 08:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 08:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 08:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*02/06/23 16:38*	*02/08/23 08:16*	*1*
o-Terphenyl	*143*	*S1+*	*70 - 130*	*02/06/23 16:38*	*02/08/23 08:16*	*1*

Lab Sample ID: LCS 880-45638/2-A
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45638

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	784.9		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	959.3		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: LCSD 880-45638/3-A
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45638

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	912.0		mg/Kg		91	70 - 130	15	20
Diesel Range Organics (Over C10-C28)			1000	1038		mg/Kg		104	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 890-3958-21 MS
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: FS47
Prep Type: Total/NA
Prep Batch: 45638

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1243		mg/Kg		122	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1090		mg/Kg		109	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Lab Sample ID: 890-3958-21 MS
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: FS47
Prep Type: Total/NA
Prep Batch: 45638

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	122		70 - 130

Lab Sample ID: 890-3958-21 MSD
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: FS47
Prep Type: Total/NA
Prep Batch: 45638

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	1127		mg/Kg		111	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1102		mg/Kg		111	70 - 130	1	20

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45080/1-A
Matrix: Solid
Analysis Batch: 45283

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/02/23 14:36	1

Lab Sample ID: LCS 880-45080/2-A
Matrix: Solid
Analysis Batch: 45283

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	261.1		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-45080/3-A
Matrix: Solid
Analysis Batch: 45283

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	262.3		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-3958-1 MS
Matrix: Solid
Analysis Batch: 45283

Client Sample ID: FS27
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	37.6		250	297.0		mg/Kg		104	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3958-1 MSD
Matrix: Solid
Analysis Batch: 45283

Client Sample ID: FS27
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	37.6		250	298.9		mg/Kg		105	90 - 110	1	20

Lab Sample ID: 890-3958-11 MS
Matrix: Solid
Analysis Batch: 45283

Client Sample ID: FS37
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	113		248	367.8		mg/Kg		103	90 - 110

Lab Sample ID: 890-3958-11 MSD
Matrix: Solid
Analysis Batch: 45283

Client Sample ID: FS37
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	113		248	370.0		mg/Kg		104	90 - 110	1	20

Lab Sample ID: MB 880-45081/1-A
Matrix: Solid
Analysis Batch: 45284

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/02/23 17:19	1

Lab Sample ID: LCS 880-45081/2-A
Matrix: Solid
Analysis Batch: 45284

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	262.7		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-45081/3-A
Matrix: Solid
Analysis Batch: 45284

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	263.9		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3958-29 MS
Matrix: Solid
Analysis Batch: 45284

Client Sample ID: SW11
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	227		250	470.0		mg/Kg		98	90 - 110

Lab Sample ID: 890-3958-29 MSD
Matrix: Solid
Analysis Batch: 45284

Client Sample ID: SW11
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	227		250	470.7		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

GC VOA

Prep Batch: 45396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Total/NA	Solid	5035	
890-3958-28	SW10	Total/NA	Solid	5035	
890-3958-29	SW11	Total/NA	Solid	5035	
890-3958-30	SW12	Total/NA	Solid	5035	
890-3958-31	SW13	Total/NA	Solid	5035	
890-3958-32	SW14	Total/NA	Solid	5035	

Analysis Batch: 45523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Total/NA	Solid	8021B	45396
890-3958-28	SW10	Total/NA	Solid	8021B	45396
890-3958-29	SW11	Total/NA	Solid	8021B	45396
890-3958-30	SW12	Total/NA	Solid	8021B	45396
890-3958-31	SW13	Total/NA	Solid	8021B	45396
890-3958-32	SW14	Total/NA	Solid	8021B	45396

Analysis Batch: 45526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-33	SW15	Total/NA	Solid	8021B	45527

Prep Batch: 45527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-33	SW15	Total/NA	Solid	5035	

Analysis Batch: 45596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Total/NA	Solid	Total BTEX	
890-3958-28	SW10	Total/NA	Solid	Total BTEX	
890-3958-29	SW11	Total/NA	Solid	Total BTEX	
890-3958-30	SW12	Total/NA	Solid	Total BTEX	
890-3958-31	SW13	Total/NA	Solid	Total BTEX	
890-3958-32	SW14	Total/NA	Solid	Total BTEX	
890-3958-33	SW15	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 45572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Total/NA	Solid	8015 NM	
890-3958-28	SW10	Total/NA	Solid	8015 NM	
890-3958-29	SW11	Total/NA	Solid	8015 NM	
890-3958-30	SW12	Total/NA	Solid	8015 NM	
890-3958-31	SW13	Total/NA	Solid	8015 NM	
890-3958-32	SW14	Total/NA	Solid	8015 NM	
890-3958-33	SW15	Total/NA	Solid	8015 NM	

Prep Batch: 45638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Total/NA	Solid	8015NM Prep	
890-3958-28	SW10	Total/NA	Solid	8015NM Prep	
890-3958-29	SW11	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 45638 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-30	SW12	Total/NA	Solid	8015NM Prep	
890-3958-31	SW13	Total/NA	Solid	8015NM Prep	
890-3958-32	SW14	Total/NA	Solid	8015NM Prep	
890-3958-33	SW15	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Total/NA	Solid	8015B NM	45638
890-3958-28	SW10	Total/NA	Solid	8015B NM	45638
890-3958-29	SW11	Total/NA	Solid	8015B NM	45638
890-3958-30	SW12	Total/NA	Solid	8015B NM	45638
890-3958-31	SW13	Total/NA	Solid	8015B NM	45638
890-3958-32	SW14	Total/NA	Solid	8015B NM	45638
890-3958-33	SW15	Total/NA	Solid	8015B NM	45638

HPLC/IC

Leach Batch: 45081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Soluble	Solid	DI Leach	
890-3958-28	SW10	Soluble	Solid	DI Leach	
890-3958-29	SW11	Soluble	Solid	DI Leach	
890-3958-30	SW12	Soluble	Solid	DI Leach	
890-3958-31	SW13	Soluble	Solid	DI Leach	
890-3958-32	SW14	Soluble	Solid	DI Leach	
890-3958-33	SW15	Soluble	Solid	DI Leach	

Analysis Batch: 45284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3958-27	SW09	Soluble	Solid	300.0	45081
890-3958-28	SW10	Soluble	Solid	300.0	45081
890-3958-29	SW11	Soluble	Solid	300.0	45081
890-3958-30	SW12	Soluble	Solid	300.0	45081
890-3958-31	SW13	Soluble	Solid	300.0	45081
890-3958-32	SW14	Soluble	Solid	300.0	45081
890-3958-33	SW15	Soluble	Solid	300.0	45081

Lab Chronicle

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW09
Date Collected: 01/25/23 12:30
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-27
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	45396	02/03/23 12:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45523	02/05/23 20:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45596	02/06/23 12:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45572	02/09/23 09:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 13:53	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	45081	01/30/23 15:56	KS	EET MID
Soluble	Analysis	300.0		1			45284	02/02/23 18:29	CH	EET MID

Client Sample ID: SW10
Date Collected: 01/25/23 12:35
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-28
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	45396	02/03/23 12:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45523	02/05/23 20:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45596	02/06/23 12:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45572	02/09/23 09:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 14:14	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	45081	01/30/23 15:56	KS	EET MID
Soluble	Analysis	300.0		1			45284	02/02/23 18:34	CH	EET MID

Client Sample ID: SW11
Date Collected: 01/25/23 12:40
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-29
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	45396	02/03/23 12:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45523	02/05/23 21:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45596	02/06/23 12:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45572	02/09/23 09:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 14:36	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	45081	01/30/23 15:56	KS	EET MID
Soluble	Analysis	300.0		1			45284	02/02/23 18:39	CH	EET MID

Client Sample ID: SW12
Date Collected: 01/25/23 12:45
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-30
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	45396	02/03/23 12:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45523	02/05/23 21:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45596	02/06/23 12:58	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW12
Date Collected: 01/25/23 12:45
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-30
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			45572	02/09/23 09:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 14:58	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	45081	01/30/23 15:56	KS	EET MID
Soluble	Analysis	300.0		1			45284	02/02/23 18:53	CH	EET MID

Client Sample ID: SW13
Date Collected: 01/25/23 12:50
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-31
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	45396	02/03/23 12:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45523	02/05/23 21:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45596	02/06/23 12:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45572	02/09/23 09:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 16:34	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	45081	01/30/23 15:56	KS	EET MID
Soluble	Analysis	300.0		1			45284	02/02/23 18:57	CH	EET MID

Client Sample ID: SW14
Date Collected: 01/25/23 12:55
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-32
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	45396	02/03/23 12:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45523	02/05/23 22:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45596	02/06/23 12:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45572	02/09/23 09:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 16:56	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	45081	01/30/23 15:56	KS	EET MID
Soluble	Analysis	300.0		1			45284	02/02/23 19:11	CH	EET MID

Client Sample ID: SW15
Date Collected: 01/25/23 13:00
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-33
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	45527	02/05/23 10:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45526	02/05/23 14:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45596	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45572	02/09/23 09:20	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 17:18	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Client Sample ID: SW15
Date Collected: 01/25/23 13:00
Date Received: 01/25/23 15:32

Lab Sample ID: 890-3958-33
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	45081	01/30/23 15:56	KS	EET MID
Soluble	Analysis	300.0		1			45284	02/02/23 19:16	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: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: VGEU 30-01

Job ID: 890-3958-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3958-27	SW09	Solid	01/25/23 12:30	01/25/23 15:32	0-4'
890-3958-28	SW10	Solid	01/25/23 12:35	01/25/23 15:32	0-4'
890-3958-29	SW11	Solid	01/25/23 12:40	01/25/23 15:32	0-4'
890-3958-30	SW12	Solid	01/25/23 12:45	01/25/23 15:32	0-4'
890-3958-31	SW13	Solid	01/25/23 12:50	01/25/23 15:32	0-4'
890-3958-32	SW14	Solid	01/25/23 12:55	01/25/23 15:32	0-4'
890-3958-33	SW15	Solid	01/25/23 13:00	01/25/23 15:32	0-4'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 4

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	VGEU 30-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057005	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TRM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	4.2
Total Containers:		Corrected Temperature:	4.0

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS27	S	1/25/2023	9:30	4'	Comp	1		x	x	x	
FS28	S	1/25/2023	9:30	4'	Comp	1		x	x	x	
FS29	S	1/25/2023	9:35	4'	Comp	1		x	x	x	Incident Number
FS30	S	1/25/2023	9:35	4'	Comp	1		x	x	x	
FS31	S	1/25/2023	9:40	4'	Comp	1		x	x	x	
FS32	S	1/25/2023	9:40	4'	Comp	1		x	x	x	
FS33	S	1/25/2023	9:45	4'	Comp	1		x	x	x	
FS34	S	1/25/2023	9:45	4'	Comp	1		x	x	x	
FS35	S	1/25/2023	9:50	4'	Comp	1		x	x	x	
FS36	S	1/25/2023	9:50	4'	Comp	1		x	x	x	

890-3958 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuff	1-25-23 1532			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: ______

www.xenco.com Page 2 of 4

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	VGEU 30-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057005	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

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

ANALYSIS REQUEST (Pres. Code; Parameters)

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021	Sample Comments
FS37	S	1/25/2023	9:55	4'	Comp	1	x	x	x	
FS38	S	1/25/2023	9:55	4'	Comp	1	x	x	x	
FS39	S	1/25/2023	10:00	4'	Comp	1	x	x	x	
FS40	S	1/25/2023	10:00	4'	Comp	1	x	x	x	
FS41	S	1/25/2023	10:05	4'	Comp	1	x	x	x	
FS42	S	1/25/2023	10:05	4'	Comp	1	x	x	x	
FS43	S	1/25/2023	10:10	4'	Comp	1	x	x	x	
FS44	S	1/25/2023	10:10	4'	Comp	1	x	x	x	
FS45	S	1/25/2023	10:15	4'	Comp	1	x	x	x	
FS46	S	1/25/2023	10:15	4'	Comp	1	x	x	x	

Preservative Codes

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

Incident Number

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DNikanorov	Amanda Stiff	1-25-23 1532	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 3 of 4

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	VGEU 30-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057005	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS47	S	1/25/2023	10:20	4'	Comp	1		x	x	x
FS48	S	1/25/2023	10:20	4'	Comp	1		x	x	x
FS49	S	1/25/2023	10:25	4'	Comp	1		x	x	x
FS50	S	1/25/2023	10:25	4'	Comp	1		x	x	x
FS51	S	1/25/2023	10:30	4'	Comp	1		x	x	x
FS52	S	1/25/2023	10:30	4'	Comp	1		x	x	x

DN 01/25/23

Preservative Codes

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

Sample Comments

Incident Number

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	DNikanorov	Amanda Sutton	1-25-23 15:30	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: ____________

www.xenco.com Page 4 of 4

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	VGEU 30-01	Turn Around	
Project Number:	03D2057005	☑ Routine ☐ Rush	Pres. Code
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

ANALYSIS REQUEST — Parameters

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
SW01	S	1/25/2023	12:30	0-4'	Comp	1	x	x	x
SW02	S	1/25/2023	12:35	0-4'	Comp	1	x	x	x
SW05	S	1/25/2023	12:40	0-4'	Comp	1	x	x	x
SW06	S	1/25/2023	12:45	0-4'	Comp	1	x	x	x
SW07	S	1/25/2023	12:50	0-4'	Comp	1	x	x	x
SW08	S	1/25/2023	12:55	0-4'	Comp	1	x	x	x
SW09	S	1/25/2023	13:00	0-4'	Comp	1	x	x	x

DN 01/25/23

Preservative Codes

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

Sample Comments

Incident Number

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DNikanorov	Amanda Shaft	1-25-23 1532			
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3958-1
SDG Number: Lea County NM

Login Number: 3958
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: 890-3958-1
SDG Number: Lea County NM

Login Number: 3958
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/27/23 11:00 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	

ENSOLUM

APPENDIX C

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	NAPP2200643457 Type text
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	ConocoPhillips	OGRID	217817
Contact Name	Kelsy Waggaman	Contact Telephone	(432) 688 - 9057
Contact email	Kelsy.Waggaman@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2200643457
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.786389 Longitude -103.495278
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	VGEU 30-01	Site Type	FlowLine
Date Release Discovered	December 21, 2021	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
O	31	17S	35E	Lea

Surface Owner: ■ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

■ Crude Oil	Volume Released (bbls) 7.4	Volume Recovered (bbls) 0
■ Produced Water	Volume Released (bbls) 66.4	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	■ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a hole in the poly flowline.
The release was in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. ConocoPhillips will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release was greater than 25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
N/A

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 1/6/2022

email: Brittany.Esparza@ConocoPhillips.com Telephone: (432) 221-0398

OCD Only

Received by: Ramona Marcus Date: 1/6/2022

L48 Spill Volume Estimate Form

NAPP2200643457

Facility Name & Number:	VGEU 30-01
Asset Area:	Buckeye
Release Discovery Date & Time:	12/21/2021 8:30am
Release Type:	Oil Mixture
Provide any known details about the event:	Hole in 3in poly flowline. Closed 2in ball valve on tubing, casing and header to isolate fluids

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?	See reference table below
Has it rained at least a half inch in the last 24 hours?	See reference table below

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	102.0	45.0	5.00	15.32%	340.425	52.153	10.00%	5.215	46.938
Rectangle B	12.0	54.0	6.00	15.32%	57.672	8.835	10.00%	0.884	7.952
Rectangle C	54.0	9.0	2.00	15.32%	14.418	2.209	10.00%	0.221	1.988
Rectangle D	78.0	12.0	5.00	15.32%	69.420	10.635	10.00%	1.064	9.572
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Rectangle J					0.000	0.000		0.000	0.000
					Total Volume Release:	73.832		7.383	66.449

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 70862

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 70862
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/6/2022

Incident ID	NAPP2200643457
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?	50-100 (feet bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☒ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
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State of New Mexico
Oil Conservation Division

HSE Specialist

Incident ID	NAPP2200643457
District RP	
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Printed Name: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Date: 02/15/2023

email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

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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: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Bryce Wagoner Date: 2/15/2023

email: Bryce.Wagoner@mavresources.com Telephone: (928) 241-1862

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Jennifer Nobui Date: 03/13/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

Photographic Log
Maverick Natural Resources, LLC
VGEU 30-01 Flowline
Incident Number NAPP2200643457

Photograph 1 Date: 03/01/2023
Description: Liner Installation.

Photograph 2 Date: 03/01/2023
Description: Liner Installation.

Photograph 3 Date: 03/01/2023
Description: Liner Installation.

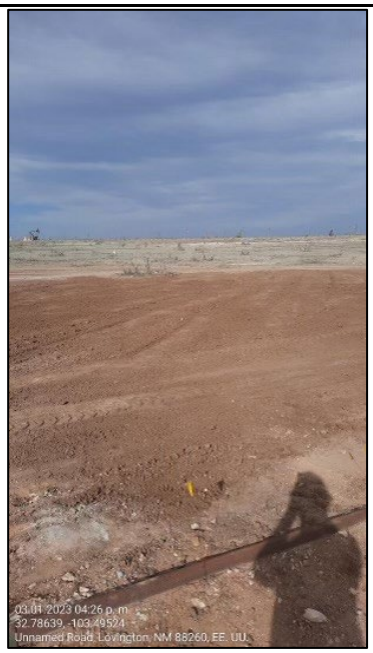
Photograph 4 Date: 03/01/2023
Description: Liner Installation.

ENSOLUM

Photographic Log
Maverick Natural Resources, LLC
VGEU 30-01 Flowline
Incident Number NAPP2200643457

Photograph 1 Date: 03/01/2023
Description: Completed Backfill.

Photograph 2 Date: 03/01/2023
Description: Completed Backfill.



Photograph 3 Date: 03/01/2023
Description: Completed Backfill.

Photograph 4 Date: 03/01/2023
Description: Completed Backfill.

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Santa Fe, NM 87505

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 186429
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	3/13/2023