ENSOLUM

April 26, 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
Gadwall 35 Federal 005H
Incident Number NAPP2308028560
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment, delineation, and soil sampling activities performed at the Gadwall 35 Federal 005H (Site). The purpose of the Site assessment, delineation, and soil sampling activities was to assess for the presence or absence of impacts to soil following a crude oil flare fire at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, COG is submitting this *Closure Request* for Incident Number NAPP2308028560.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 35, Township 24 South, Range 32 East, in Lea County, New Mexico (32.1672°, -103.6372°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On March 4, 2023, a backed-up heater treater caused approximately 0.001 barrels (bbls) of crude oil to be sent to the flare. The crude oil ignited and extinguished itself after reaching the ground. The fire affected the well pad beneath the flare and the surrounding pasture. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on March 6, 2023, and submitted a Release Notification Form C-141 (Form C-141) on March 21, 2023. The release was assigned Incident Number NAPP2308028560.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) 321005103402301, located approximately 2.0 miles west of the Site. The groundwater well reported depth to water at 289 feet bgs and the well was drilled to a total depth of 367 feet bgs. The well was most recently measured in January of 2013. Ground surface elevation at the groundwater well location is 3,499 feet above mean sea level

(amsl), which is approximately 50 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a stream, located approximately 4.25 miles southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On March 15, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four soil samples (SS01 through SS04) were collected around the release extent in each cardinal direction at a depth of approximately 0.5 feet bgs to confirm the lateral extent of the release. Three soil samples (SS05 through SS07) were collected within the release extent at a depth of approximately 0.5 feet bgs to assess for the presence or absence of impacted soil associated with the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included as Appendix B.

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

Laboratory analytical results for soil samples SS01 through SS07, collected within and around the release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria.

Vertical delineation activities were scheduled to further confirm the absence of impacted soil within the release extent. On April 10, 2023, Ensolum personnel returned to the Site to perform delineation

activities. Boreholes were advanced via hand-auger at the locations of initial soil samples SS05 through SS07. One discrete delineation soil sample was collected from each borehole (SS05A, SS06A, and SS07A) at a depth of 1-foot bgs. Soil from the delineation samples was field screened for VOCs and chloride. The boreholes were backfilled with the soil removed. The delineation soil samples were collected, handled, and analyzed as previously described. The delineation soil sample locations are depicted on Figure 2. A photographic log is included in Appendix B.

Laboratory analytical results for delineation soil samples SS05A through SS07A indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix C.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the March 4, 2023, crude oil flare fire. Laboratory analytical results for the soil samples, collected within and around the release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG removed the surficial staining from the fire and based on the soil sample analytical results, no further remediation was required. As such, COG respectfully requests closure for Incident Number NAPP2308028560. The C-141 is included in Appendix E.

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

Sincerely,
Ensolum, LLC

Peter Van Patten
Project Geologist

Aimee Cole
Senior Managing Scientist

cc: Jacob Laird, COG Operating, LLC
Bureau of Land Management

Appendices:

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

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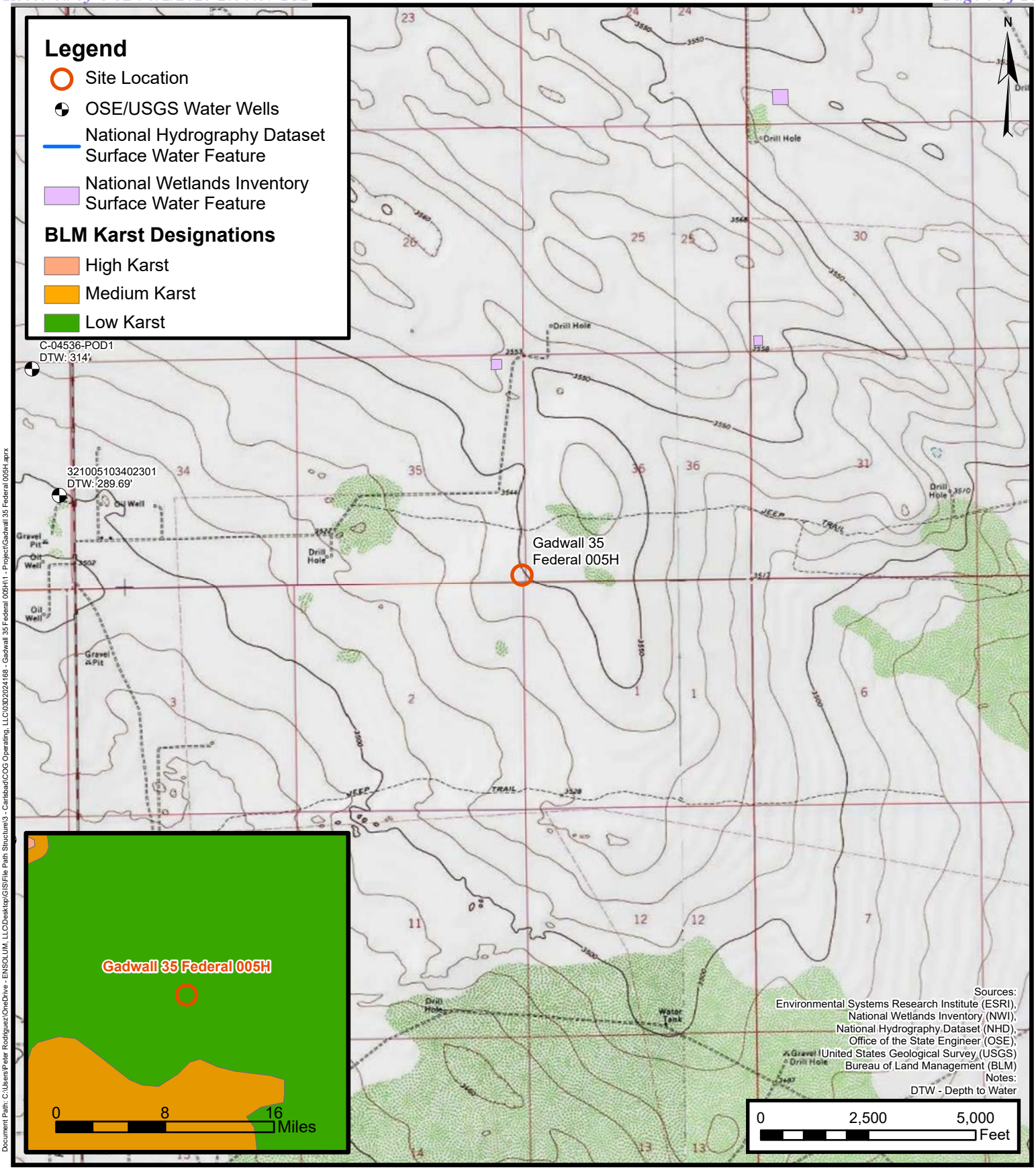
FIGURES



Document Path: C:\Users\Peter Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\GIS\File Path Structure\3 - Carlsbad\COG Operating, LLC\03D20241168 - Gadwall 35 Federal 005H\1 - Project\Gadwall 35 Federal 005H.aprx

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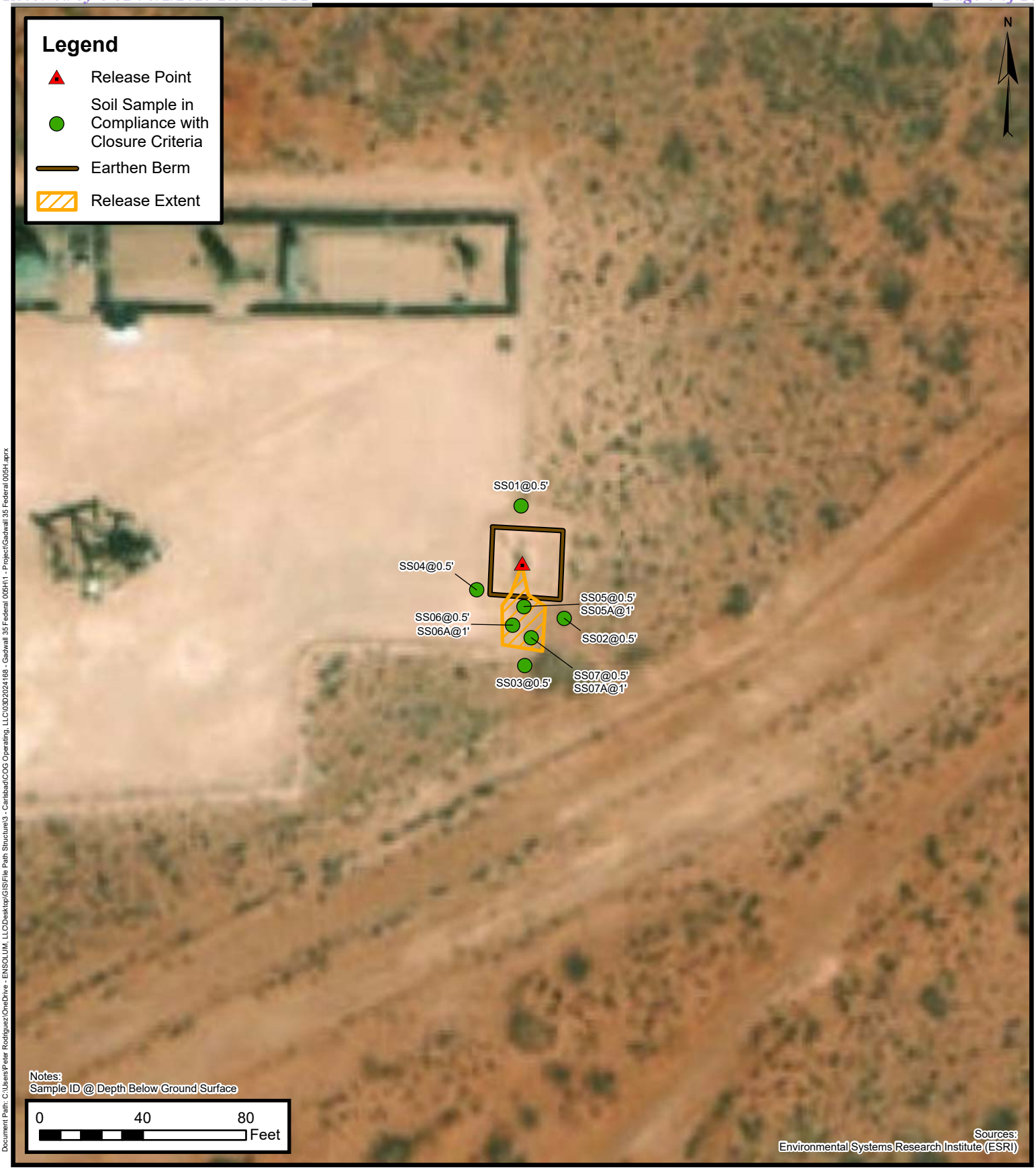
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

COG Operating, LLC
Gadwall 35 Federal 005H
Incident Number: NAPP2308028560
Unit P, Section 35, Township 24S, Range 32E
Lea County, New Mexico

FIGURE
1



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Soil Sample Locations

COG Operating, LLC
Gadwall 35 Federal 005H
Incident Number: NAPP2308028560
Unit P, Section 35, Township 24S, Range 32E
Lea County, New Mexico

FIGURE
2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Gadwall 35 Federal 005H
COG Operating, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Soil Samples										
SS01	03/15/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	20.0
SS02	03/15/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	17.9
SS03	03/15/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	8.27
SS04	03/15/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	10.9
SS05	03/15/2023	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	11.1
SS05A	04/10/2023	1	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	99.0
SS06	03/15/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	148
SS06A	04/10/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	139
SS07	03/15/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	63.0
SS07A	04/10/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	284

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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APPENDIX A

Referenced Well Records

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321005103402301

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321005103402301 24S.32E.33.42241

Lea County, New Mexico
Latitude 32°10'21.6", Longitude 103°40'18.9" NAD83
Land-surface elevation 3,499.00 feet above NGVD29
The depth of the well is 367 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1959-02-18		D	62610		3185.60	NGVD29	1	Z			A
1959-02-18		D	62611		3187.32	NAVD88	1	Z			A
1959-02-18		D	72019	313.40			1	Z			A
1981-06-12		D	62610		3194.60	NGVD29	1	Z			A
1981-06-12		D	62611		3196.32	NAVD88	1	Z			A
1981-06-12		D	72019	304.40			1	Z			A
1986-03-11		D	62610		3193.79	NGVD29	1	Z			A
1986-03-11		D	62611		3195.51	NAVD88	1	Z			A
1986-03-11		D	72019	305.21			1	Z			A
1991-05-29		D	62610		3211.55	NGVD29	1	Z			A
1991-05-29		D	62611		3213.27	NAVD88	1	Z			A
1991-05-29		D	72019	287.45			1	Z			A
1996-03-14		D	62610		3213.60	NGVD29	1	S			A
1996-03-14		D	62611		3215.32	NAVD88	1	S			A
1996-03-14		D	72019	285.40			1	S			A
2001-02-27		D	62610		3210.32	NGVD29	1	S			A
2001-02-27		D	62611		3212.04	NAVD88	1	S			A
2001-02-27		D	72019	288.68			1	S			A
2013-01-17	16:30 UTC	m	62610		3209.31	NGVD29	1	S	USGS	S	A
2013-01-17	16:30 UTC	m	62611		3211.03	NAVD88	1	S	USGS	S	A
2013-01-17	16:30 UTC	m	72019	289.69			1	S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface

Section	Code	Description
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2023-04-08 13:17:16 EDT
0.31 0.26 nadww01

New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 04622 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

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

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

Owner: DEVON ENERGY

Contact: DALE WOODALL

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	726166	EXPL	2022-05-23	PMT	APR	C 04622 POD1	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 04622 POD1	NA		3	3	4	24	24S	32E	629436	3563006	TW-1

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APPENDIX B

Photographic Log

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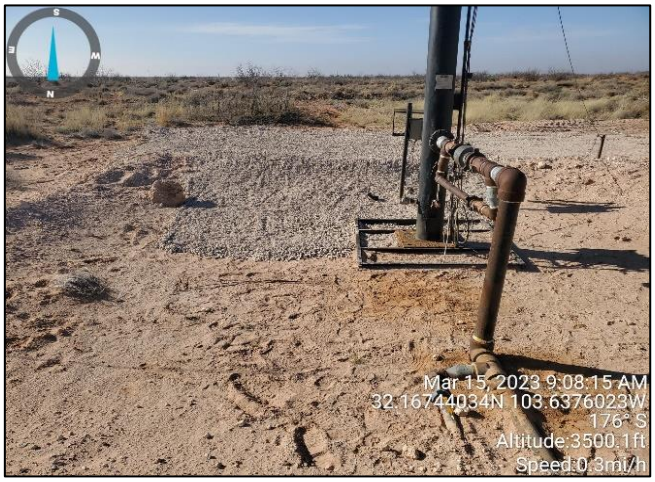
Photographic Log
COG Operating, LLC
Gadwall 35 Federal 005H
Incident Number NAPP2308028560

Photograph: 1 Date: 3/4/2023
Description: Soil staining in release extent
View: Northeast



Photograph: 2 Date: 3/15/2023
Description: Initial assessment activities
View: South

Photograph: 3 Date: 4/10/2023
Description: Delineation activities
View: Southeast

Photograph: 4 Date: 4/10/2023
Description: Delineation activities
View: East

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APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 3/29/2023 2:58:14 PM

JOB DESCRIPTION

Gadwall 35 Federal #005H
SDG NUMBER 03D2024168

JOB NUMBER

890-4320-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

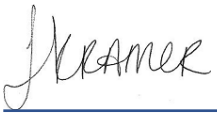
See page two for job notes and contact information.

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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3/29/2023 2:58:14 PM

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

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Laboratory Job ID: 890-4320-1
SDG: 03D2024168

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Job ID: 890-4320-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4320-1

Receipt
The samples were received on 3/15/2023 2:29 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 5.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4320-1), SS02 (890-4320-2), SS03 (890-4320-3), SS04 (890-4320-4), SS05 (890-4320-5), SS06 (890-4320-6) and SS07 (890-4320-7).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-4320-1) and SS04 (890-4320-4). 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: (890-4318-A-1-E). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-49414 and analytical batch 880-49684. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS07 (890-4320-7), (890-4353-A-34-C), (890-4353-A-34-A MS) and (890-4353-A-34-B 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: The surrogate recovery for the blank associated with preparation batch 880-49012 and analytical batch 880-49067 was outside the upper control limits.

Method 8015MOD_NM: The method blank for preparation batch 880-49012 and analytical batch 880-49067 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS01

Lab Sample ID: 890-4320-1
Matrix: Solid

Date Collected: 03/15/23 09:15
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 18:00	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 18:00	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 18:00	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/24/23 12:44	03/28/23 18:00	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 18:00	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/24/23 12:44	03/28/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*03/24/23 12:44*	*03/28/23 18:00*	*1*
1,4-Difluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*03/24/23 12:44*	*03/28/23 18:00*	*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			03/29/23 09:39	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			03/22/23 16:11	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 F1	49.9		mg/Kg		03/20/23 13:48	03/21/23 11:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 11:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 11:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/20/23 13:48*	*03/21/23 11:05*	*1*
o-Terphenyl	*89*		*70 - 130*	*03/20/23 13:48*	*03/21/23 11:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.0**		5.03		mg/Kg			03/25/23 16:26	1

Client Sample ID: SS02

Lab Sample ID: 890-4320-2
Matrix: Solid

Date Collected: 03/15/23 09:20
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 18:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 18:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 18:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/24/23 12:44	03/28/23 18:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 18:21	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/24/23 12:44	03/28/23 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/24/23 12:44*	*03/28/23 18:21*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS02

Lab Sample ID: 890-4320-2
Matrix: Solid
Date Collected: 03/15/23 09:20
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*03/24/23 12:44*	*03/28/23 18:21*	*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			03/29/23 09:39	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			03/22/23 16:11	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		03/20/23 13:48	03/21/23 12:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/20/23 13:48	03/21/23 12:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/20/23 13:48	03/21/23 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*92*		*70 - 130*	*03/20/23 13:48*	*03/21/23 12:12*	*1*
o-Terphenyl	*90*		*70 - 130*	*03/20/23 13:48*	*03/21/23 12:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.9**		5.03	mg/Kg			03/25/23 16:30	1

Client Sample ID: SS03

Lab Sample ID: 890-4320-3
Matrix: Solid
Date Collected: 03/15/23 09:25
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/24/23 12:44	03/28/23 18:41	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/23 12:44	03/28/23 18:41	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/23 12:44	03/28/23 18:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/23 12:44	03/28/23 18:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/23 12:44	03/28/23 18:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/23 12:44	03/28/23 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*03/24/23 12:44*	*03/28/23 18:41*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*03/24/23 12:44*	*03/28/23 18:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/29/23 09:39	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			03/22/23 16:11	1

Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS03

Lab Sample ID: 890-4320-3
Matrix: Solid
Date Collected: 03/15/23 09:25
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 14:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 14:23	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*03/20/23 13:48*	*03/21/23 14:23*	*1*
o-Terphenyl	*85*		*70 - 130*	*03/20/23 13:48*	*03/21/23 14:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.27**		4.99		mg/Kg			03/25/23 16:35	1

Client Sample ID: SS04

Lab Sample ID: 890-4320-4
Matrix: Solid
Date Collected: 03/15/23 09:30
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/24/23 12:44	03/28/23 19:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/24/23 12:44	03/28/23 19:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/24/23 12:44	03/28/23 19:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/24/23 12:44	03/28/23 19:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/24/23 12:44	03/28/23 19:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/24/23 12:44	03/28/23 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*53*	*S1-*	*70 - 130*	*03/24/23 12:44*	*03/28/23 19:02*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/24/23 12:44*	*03/28/23 19:02*	*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			03/29/23 09:39	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			03/22/23 16:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 14:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 14:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/20/23 13:48*	*03/21/23 14:46*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/20/23 13:48*	*03/21/23 14:46*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS04

Lab Sample ID: 890-4320-4
Matrix: Solid
Date Collected: 03/15/23 09:30
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.9		5.00		mg/Kg			03/25/23 16:39	1

Client Sample ID: SS05

Lab Sample ID: 890-4320-5
Matrix: Solid
Date Collected: 03/15/23 10:00
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 19:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 19:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 19:22	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/24/23 12:44	03/28/23 19:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 19:22	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/24/23 12:44	03/28/23 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/24/23 12:44*	*03/28/23 19:22*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*03/24/23 12:44*	*03/28/23 19:22*	*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			03/29/23 09:39	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			03/22/23 16:11	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		03/20/23 13:48	03/21/23 15:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/20/23 13:48	03/21/23 15:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/20/23 13:48	03/21/23 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*03/20/23 13:48*	*03/21/23 15:08*	*1*
o-Terphenyl	*83*		*70 - 130*	*03/20/23 13:48*	*03/21/23 15:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.1		5.00		mg/Kg			03/25/23 16:44	1

Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS06

Lab Sample ID: 890-4320-6
Matrix: Solid
Date Collected: 03/15/23 10:05
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 19:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 19:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 19:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/24/23 12:44	03/28/23 19:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/24/23 12:44	03/28/23 19:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/24/23 12:44	03/28/23 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/24/23 12:44*	*03/28/23 19:43*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*03/24/23 12:44*	*03/28/23 19:43*	*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			03/29/23 09:39	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			03/22/23 16:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 15:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 15:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/20/23 13:48*	*03/21/23 15:53*	*1*
o-Terphenyl	*96*		*70 - 130*	*03/20/23 13:48*	*03/21/23 15:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**148**		5.01		mg/Kg			03/26/23 10:22	1

Client Sample ID: SS07

Lab Sample ID: 890-4320-7
Matrix: Solid
Date Collected: 03/15/23 10:10
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/24/23 14:10	03/28/23 18:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/24/23 14:10	03/28/23 18:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/24/23 14:10	03/28/23 18:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/24/23 14:10	03/28/23 18:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/24/23 14:10	03/28/23 18:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/24/23 14:10	03/28/23 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*	*03/24/23 14:10*	*03/28/23 18:27*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS07

Date Collected: 03/15/23 10:10
Date Received: 03/15/23 14:29
Sample Depth: 0.5'

Lab Sample ID: 890-4320-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*03/24/23 14:10*	*03/28/23 18:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/29/23 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/22/23 16:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 16:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 16:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/20/23 13:48	03/21/23 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*03/20/23 13:48*	*03/21/23 16:14*	*1*
o-Terphenyl	*81*		*70 - 130*	*03/20/23 13:48*	*03/21/23 16:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.0**		4.97		mg/Kg			03/26/23 10:36	1

Surrogate Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

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)
890-4318-A-1-C MS	Matrix Spike	100	107
890-4318-A-1-D MSD	Matrix Spike Duplicate	92	108
890-4320-1	SS01	79	64 S1-
890-4320-2	SS02	95	78
890-4320-3	SS03	96	87
890-4320-4	SS04	53 S1-	98
890-4320-5	SS05	106	79
890-4320-6	SS06	105	92
890-4320-7	SS07	143 S1+	92
890-4353-A-34-A MS	Matrix Spike	143 S1+	94
890-4353-A-34-B MSD	Matrix Spike Duplicate	138 S1+	99
LCS 880-49414/1-A	Lab Control Sample	84	119
LCS 880-49447/1-A	Lab Control Sample	114	102
LCSD 880-49414/2-A	Lab Control Sample Dup	104	112
LCSD 880-49447/2-A	Lab Control Sample Dup	114	107
MB 880-49414/5-A	Method Blank	72	97
MB 880-49447/5-A	Method Blank	92	81

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4320-1	SS01	87	89
890-4320-1 MS	SS01	118	96
890-4320-1 MSD	SS01	87	84
890-4320-2	SS02	92	90
890-4320-3	SS03	84	85
890-4320-4	SS04	100	99
890-4320-5	SS05	82	83
890-4320-6	SS06	95	96
890-4320-7	SS07	81	81
LCS 880-49012/2-A	Lab Control Sample	90	99
LCSD 880-49012/3-A	Lab Control Sample Dup	101	112
MB 880-49012/1-A	Method Blank	128	133 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49414/5-A
Matrix: Solid
Analysis Batch: 49684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 11:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 11:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 11:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/24/23 12:44	03/28/23 11:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/24/23 12:44	03/28/23 11:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/24/23 12:44	03/28/23 11:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*03/24/23 12:44*	*03/28/23 11:19*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/24/23 12:44*	*03/28/23 11:19*	*1*

Lab Sample ID: LCS 880-49414/1-A
Matrix: Solid
Analysis Batch: 49684

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1197		mg/Kg		120	70 - 130		
Toluene			0.100	0.09552		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.08488		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1702		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08508		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*

Lab Sample ID: LCSD 880-49414/2-A
Matrix: Solid
Analysis Batch: 49684

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49414

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1164		mg/Kg		116	70 - 130	3	35
Toluene			0.100	0.1045		mg/Kg		104	70 - 130	9	35
Ethylbenzene			0.100	0.09983		mg/Kg		100	70 - 130	16	35
m-Xylene & p-Xylene			0.200	0.2101		mg/Kg		105	70 - 130	21	35
o-Xylene			0.100	0.1053		mg/Kg		105	70 - 130	21	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 890-4318-A-1-C MS
Matrix: Solid
Analysis Batch: 49684

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49414

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1 F2	0.100	0.003071	F1	mg/Kg		3	70 - 130		
Toluene	<0.00201	U F1 F2	0.100	<0.00201	U F1	mg/Kg		1	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

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

Lab Sample ID: 890-4318-A-1-C MS
Matrix: Solid
Analysis Batch: 49684

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49414

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1 F2	0.100	<0.00201	U F1	mg/Kg		2	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.201	<0.00402	U F1	mg/Kg		2	70 - 130
o-Xylene	<0.00201	U F1 F2	0.100	0.003131	F1	mg/Kg		3	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 890-4318-A-1-D MSD
Matrix: Solid
Analysis Batch: 49684

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 49414

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1 F2	0.0990	0.002044	F1 F2	mg/Kg		2	70 - 130	40	35
Toluene	<0.00201	U F1 F2	0.0990	<0.00198	U F1 F2	mg/Kg		0.7	70 - 130	72	35
Ethylbenzene	<0.00201	U F1 F2	0.0990	<0.00198	U F1 F2	mg/Kg		0.8	70 - 130	66	35
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.198	<0.00396	U F1 F2	mg/Kg		1	70 - 130	54	35
o-Xylene	<0.00201	U F1 F2	0.0990	0.002147	F1 F2	mg/Kg		2	70 - 130	37	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 880-49447/5-A
Matrix: Solid
Analysis Batch: 49735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49447

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*03/24/23 14:10*	*03/28/23 15:20*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*03/24/23 14:10*	*03/28/23 15:20*	*1*

Lab Sample ID: LCS 880-49447/1-A
Matrix: Solid
Analysis Batch: 49735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1130		mg/Kg		113	70 - 130
Toluene	0.100	0.09973		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1082		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2222		mg/Kg		111	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

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

Lab Sample ID: LCS 880-49447/1-A
Matrix: Solid
Analysis Batch: 49735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49447

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1057		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-49447/2-A
Matrix: Solid
Analysis Batch: 49735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49447

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1239		mg/Kg		124	70 - 130	9	35
Toluene			0.100	0.1039		mg/Kg		104	70 - 130	4	35
Ethylbenzene			0.100	0.1134		mg/Kg		113	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2319		mg/Kg		116	70 - 130	4	35
o-Xylene			0.100	0.1103		mg/Kg		110	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 890-4353-A-34-A MS
Matrix: Solid
Analysis Batch: 49735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.1071		mg/Kg		107	70 - 130		
Toluene	<0.00200	U	0.100	0.1079		mg/Kg		107	70 - 130		
Ethylbenzene	<0.00200	U	0.100	0.1227		mg/Kg		122	70 - 130		
m-Xylene & p-Xylene	<0.00399	U	0.201	0.2515		mg/Kg		125	70 - 130		
o-Xylene	<0.00200	U	0.100	0.1199		mg/Kg		119	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-4353-A-34-B MSD
Matrix: Solid
Analysis Batch: 49735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1282		mg/Kg		129	70 - 130	18	35
Toluene	<0.00200	U	0.0996	0.1114		mg/Kg		112	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.0996	0.1226		mg/Kg		123	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2519		mg/Kg		126	70 - 130	0	35
o-Xylene	<0.00200	U	0.0996	0.1190		mg/Kg		120	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

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

Lab Sample ID: 890-4353-A-34-B MSD
Matrix: Solid
Analysis Batch: 49735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 49447

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-49012/1-A
Matrix: Solid
Analysis Batch: 49067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49012

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/20/23 13:48	03/21/23 08:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/20/23 13:48	03/21/23 08:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/20/23 13:48	03/21/23 08:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	03/20/23 13:48	03/21/23 08:28	1
o-Terphenyl	133	S1+	70 - 130	03/20/23 13:48	03/21/23 08:28	1

Lab Sample ID: LCS 880-49012/2-A
Matrix: Solid
Analysis Batch: 49067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49012

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	857.2		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	846.3		mg/Kg		85	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-49012/3-A
Matrix: Solid
Analysis Batch: 49067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49012

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	840.2		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	962.9		mg/Kg		96	70 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	112		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

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

Lab Sample ID: 890-4320-1 MS
Matrix: Solid
Analysis Batch: 49067

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 49012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	998	966.0		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	943.6		mg/Kg		91	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: 890-4320-1 MSD
Matrix: Solid
Analysis Batch: 49067

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 49012

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	999	942.1		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	832.9		mg/Kg		80	70 - 130	12	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49263/1-A
Matrix: Solid
Analysis Batch: 49472

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			03/25/23 14:27	1

Lab Sample ID: LCS 880-49263/2-A
Matrix: Solid
Analysis Batch: 49472

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	242.2		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-49263/3-A
Matrix: Solid
Analysis Batch: 49472

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	249.0		mg/Kg		100	90 - 110	3	20

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4316-A-5-C MS
Matrix: Solid
Analysis Batch: 49472

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	667		251	911.5		mg/Kg		97	90 - 110

Lab Sample ID: 890-4316-A-5-D MSD
Matrix: Solid
Analysis Batch: 49472

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	667		251	914.5		mg/Kg		99	90 - 110	0	20

Lab Sample ID: MB 880-49271/1-A
Matrix: Solid
Analysis Batch: 49506

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			03/26/23 10:07	1

Lab Sample ID: LCS 880-49271/2-A
Matrix: Solid
Analysis Batch: 49506

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	261.5		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-49271/3-A
Matrix: Solid
Analysis Batch: 49506

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	262.4		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-4320-6 MS
Matrix: Solid
Analysis Batch: 49506

Client Sample ID: SS06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	148		251	409.7		mg/Kg		104	90 - 110

Lab Sample ID: 890-4320-6 MSD
Matrix: Solid
Analysis Batch: 49506

Client Sample ID: SS06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	148		251	410.0		mg/Kg		104	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

GC VOA

Prep Batch: 49414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Total/NA	Solid	5035	
890-4320-2	SS02	Total/NA	Solid	5035	
890-4320-3	SS03	Total/NA	Solid	5035	
890-4320-4	SS04	Total/NA	Solid	5035	
890-4320-5	SS05	Total/NA	Solid	5035	
890-4320-6	SS06	Total/NA	Solid	5035	
MB 880-49414/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49414/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49414/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4318-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4318-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 49447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-7	SS07	Total/NA	Solid	5035	
MB 880-49447/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	5035	
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Total/NA	Solid	8021B	49414
890-4320-2	SS02	Total/NA	Solid	8021B	49414
890-4320-3	SS03	Total/NA	Solid	8021B	49414
890-4320-4	SS04	Total/NA	Solid	8021B	49414
890-4320-5	SS05	Total/NA	Solid	8021B	49414
890-4320-6	SS06	Total/NA	Solid	8021B	49414
MB 880-49414/5-A	Method Blank	Total/NA	Solid	8021B	49414
LCS 880-49414/1-A	Lab Control Sample	Total/NA	Solid	8021B	49414
LCSD 880-49414/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49414
890-4318-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	49414
890-4318-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49414

Analysis Batch: 49735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-7	SS07	Total/NA	Solid	8021B	49447
MB 880-49447/5-A	Method Blank	Total/NA	Solid	8021B	49447
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	8021B	49447
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49447
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	8021B	49447
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49447

Analysis Batch: 49799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Total/NA	Solid	Total BTEX	
890-4320-2	SS02	Total/NA	Solid	Total BTEX	
890-4320-3	SS03	Total/NA	Solid	Total BTEX	
890-4320-4	SS04	Total/NA	Solid	Total BTEX	
890-4320-5	SS05	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

GC VOA (Continued)

Analysis Batch: 49799 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-6	SS06	Total/NA	Solid	Total BTEX	
890-4320-7	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Total/NA	Solid	8015NM Prep	
890-4320-2	SS02	Total/NA	Solid	8015NM Prep	
890-4320-3	SS03	Total/NA	Solid	8015NM Prep	
890-4320-4	SS04	Total/NA	Solid	8015NM Prep	
890-4320-5	SS05	Total/NA	Solid	8015NM Prep	
890-4320-6	SS06	Total/NA	Solid	8015NM Prep	
890-4320-7	SS07	Total/NA	Solid	8015NM Prep	
MB 880-49012/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49012/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49012/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4320-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-4320-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Total/NA	Solid	8015B NM	49012
890-4320-2	SS02	Total/NA	Solid	8015B NM	49012
890-4320-3	SS03	Total/NA	Solid	8015B NM	49012
890-4320-4	SS04	Total/NA	Solid	8015B NM	49012
890-4320-5	SS05	Total/NA	Solid	8015B NM	49012
890-4320-6	SS06	Total/NA	Solid	8015B NM	49012
890-4320-7	SS07	Total/NA	Solid	8015B NM	49012
MB 880-49012/1-A	Method Blank	Total/NA	Solid	8015B NM	49012
LCS 880-49012/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49012
LCSD 880-49012/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49012
890-4320-1 MS	SS01	Total/NA	Solid	8015B NM	49012
890-4320-1 MSD	SS01	Total/NA	Solid	8015B NM	49012

Analysis Batch: 49233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Total/NA	Solid	8015 NM	
890-4320-2	SS02	Total/NA	Solid	8015 NM	
890-4320-3	SS03	Total/NA	Solid	8015 NM	
890-4320-4	SS04	Total/NA	Solid	8015 NM	
890-4320-5	SS05	Total/NA	Solid	8015 NM	
890-4320-6	SS06	Total/NA	Solid	8015 NM	
890-4320-7	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Soluble	Solid	DI Leach	
890-4320-2	SS02	Soluble	Solid	DI Leach	
890-4320-3	SS03	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

HPLC/IC (Continued)

Leach Batch: 49263 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-4	SS04	Soluble	Solid	DI Leach	
890-4320-5	SS05	Soluble	Solid	DI Leach	
MB 880-49263/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49263/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49263/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4316-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4316-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 49271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-6	SS06	Soluble	Solid	DI Leach	
890-4320-7	SS07	Soluble	Solid	DI Leach	
MB 880-49271/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49271/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49271/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4320-6 MS	SS06	Soluble	Solid	DI Leach	
890-4320-6 MSD	SS06	Soluble	Solid	DI Leach	

Analysis Batch: 49472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-1	SS01	Soluble	Solid	300.0	49263
890-4320-2	SS02	Soluble	Solid	300.0	49263
890-4320-3	SS03	Soluble	Solid	300.0	49263
890-4320-4	SS04	Soluble	Solid	300.0	49263
890-4320-5	SS05	Soluble	Solid	300.0	49263
MB 880-49263/1-A	Method Blank	Soluble	Solid	300.0	49263
LCS 880-49263/2-A	Lab Control Sample	Soluble	Solid	300.0	49263
LCSD 880-49263/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49263
890-4316-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	49263
890-4316-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49263

Analysis Batch: 49506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4320-6	SS06	Soluble	Solid	300.0	49271
890-4320-7	SS07	Soluble	Solid	300.0	49271
MB 880-49271/1-A	Method Blank	Soluble	Solid	300.0	49271
LCS 880-49271/2-A	Lab Control Sample	Soluble	Solid	300.0	49271
LCSD 880-49271/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49271
890-4320-6 MS	SS06	Soluble	Solid	300.0	49271
890-4320-6 MSD	SS06	Soluble	Solid	300.0	49271

Lab Chronicle

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS01

Date Collected: 03/15/23 09:15
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	49414	03/24/23 12:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49684	03/28/23 18:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49799	03/29/23 09:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49012	03/20/23 13:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49067	03/21/23 11:05	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 16:26	SMC	EET MID

Client Sample ID: SS02

Date Collected: 03/15/23 09:20
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-2
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			4.99 g	5 mL	49414	03/24/23 12:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49684	03/28/23 18:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49799	03/29/23 09:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49012	03/20/23 13:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49067	03/21/23 12:12	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 16:30	SMC	EET MID

Client Sample ID: SS03

Date Collected: 03/15/23 09:25
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	49414	03/24/23 12:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49684	03/28/23 18:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49799	03/29/23 09:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49012	03/20/23 13:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49067	03/21/23 14:23	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 16:35	SMC	EET MID

Client Sample ID: SS04

Date Collected: 03/15/23 09:30
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-4
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			5.03 g	5 mL	49414	03/24/23 12:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49684	03/28/23 19:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49799	03/29/23 09:39	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS04

Date Collected: 03/15/23 09:30
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-4

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			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49012	03/20/23 13:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49067	03/21/23 14:46	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 16:39	SMC	EET MID

Client Sample ID: SS05

Date Collected: 03/15/23 10:00
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-5

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	49414	03/24/23 12:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49684	03/28/23 19:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49799	03/29/23 09:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49012	03/20/23 13:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49067	03/21/23 15:08	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 16:44	SMC	EET MID

Client Sample ID: SS06

Date Collected: 03/15/23 10:05
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-6

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			4.97 g	5 mL	49414	03/24/23 12:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49684	03/28/23 19:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49799	03/29/23 09:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49012	03/20/23 13:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49067	03/21/23 15:53	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	49271	03/22/23 22:21	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49506	03/26/23 10:22	SMC	EET MID

Client Sample ID: SS07

Date Collected: 03/15/23 10:10
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-7

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/28/23 18:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49799	03/29/23 12:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49012	03/20/23 13:48	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49067	03/21/23 16:14	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Client Sample ID: SS07

Date Collected: 03/15/23 10:10
Date Received: 03/15/23 14:29

Lab Sample ID: 890-4320-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	49271	03/22/23 22:21	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49506	03/26/23 10:36	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

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: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

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: Gadwall 35 Federal #005H

Job ID: 890-4320-1
SDG: 03D2024168

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4320-1	SS01	Solid	03/15/23 09:15	03/15/23 14:29	0.5'
890-4320-2	SS02	Solid	03/15/23 09:20	03/15/23 14:29	0.5'
890-4320-3	SS03	Solid	03/15/23 09:25	03/15/23 14:29	0.5'
890-4320-4	SS04	Solid	03/15/23 09:30	03/15/23 14:29	0.5'
890-4320-5	SS05	Solid	03/15/23 10:00	03/15/23 14:29	0.5'
890-4320-6	SS06	Solid	03/15/23 10:05	03/15/23 14:29	0.5'
890-4320-7	SS07	Solid	03/15/23 10:10	03/15/23 14:29	0.5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
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:	432-557-8895	Email:	hgreen@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:	Gadwall 35 Federal #005H	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024168	Due Date:	
Project Location:	32.167222,-103.637222	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Peter Van Patten		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	Tm-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.2

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS01	Soil	3/15/2023	915	0.5'	Comp	1		x	x	x	
SS02	Soil	3/15/2023	920	0.5'	Comp	1		x	x	x	
SS03	Soil	3/15/2023	925	0.5'	Comp	1		x	x	x	
SS04	Soil	3/15/2023	930	0.5'	Comp	1		x	x	x	
SS05	Soil	3/15/2023	1000	0.5'	Comp	1		x	x	x	
SS06	Soil	3/15/2023	1005	0.5'	Comp	1		x	x	x	
SS07	Soil	3/15/2023	1010	0.5'	Comp	1		x	x	x	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Peter Van Patten	Amanda Stott	3/15/23 1429			
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4320-1
SDG Number: 03D2024168

Login Number: 4320
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: 890-4320-1
SDG Number: 03D2024168

Login Number: 4320
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/17/23 11:17 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: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

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JOB DESCRIPTION

Gadwall 35 Federal 005H
SDG NUMBER 03D2024168

JOB NUMBER

890-4485-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

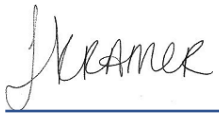
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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
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Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Laboratory Job ID: 890-4485-1
SDG: 03D2024168

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-4485-1
Project/Site: Gadwall 35 Federal 005H SDG: 03D2024168

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

Job ID: 890-4485-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4485-1

Receipt
The sample was received on 4/10/2023 12:50 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS07A (890-4485-1).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-26842-A-1-G MS) and (880-26842-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 880-50884 and analytical batch 880-51006 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Toluene in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-50902/2-A) and (LCSD 880-50902/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-26982-A-1-D MS) and (880-26982-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS07A (890-4485-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-50902 and analytical batch 880-50866 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

Client Sample ID: SS07A

Date Collected: 04/10/23 10:20
Date Received: 04/10/23 12:50
Sample Depth: 1

Lab Sample ID: 890-4485-1

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		04/11/23 10:01	04/14/23 05:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/11/23 10:01	04/14/23 05:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/11/23 10:01	04/14/23 05:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/11/23 10:01	04/14/23 05:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/11/23 10:01	04/14/23 05:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/11/23 10:01	04/14/23 05:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*04/11/23 10:01*	*04/14/23 05:27*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*04/11/23 10:01*	*04/14/23 05:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/14/23 10:17	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			04/12/23 09:01	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		04/11/23 11:07	04/12/23 00:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/11/23 11:07	04/12/23 00:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/11/23 11:07	04/12/23 00:26	1
Total TPH	<50.0	U	50.0		mg/Kg		04/11/23 11:07	04/12/23 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*04/11/23 11:07*	*04/12/23 00:26*	*1*
o-Terphenyl	*72*		*70 - 130*	*04/11/23 11:07*	*04/12/23 00:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**284**		4.97		mg/Kg			04/13/23 23:15	1

Surrogate Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-26842-A-1-G MS	Matrix Spike	64 S1-	68 S1-										
880-26842-A-1-H MSD	Matrix Spike Duplicate	66 S1-	74										
890-4485-1	SS07A	99	108										
LCS 880-50884/1-A	Lab Control Sample	103	111										
LCSD 880-50884/2-A	Lab Control Sample Dup	101	109										
MB 880-50884/5-A	Method Blank	91	97										
MB 880-50904/5-A	Method Blank	94	99										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-26982-A-1-D MS	Matrix Spike	74	67 S1-										
880-26982-A-1-E MSD	Matrix Spike Duplicate	76	69 S1-										
890-4485-1	SS07A	65 S1-	72										
LCS 880-50902/2-A	Lab Control Sample	9 S1-	7 S1-										
LCSD 880-50902/3-A	Lab Control Sample Dup	9 S1-	7 S1-										
MB 880-50902/1-A	Method Blank	83	92										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50884/5-A
Matrix: Solid
Analysis Batch: 51006

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50884

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/11/23 10:01	04/14/23 00:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/11/23 10:01	04/14/23 00:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/11/23 10:01	04/14/23 00:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/11/23 10:01	04/14/23 00:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/11/23 10:01	04/14/23 00:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/11/23 10:01	04/14/23 00:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*04/11/23 10:01*	*04/14/23 00:03*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/11/23 10:01*	*04/14/23 00:03*	*1*

Lab Sample ID: LCS 880-50884/1-A
Matrix: Solid
Analysis Batch: 51006

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50884

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1075		mg/Kg		107	70 - 130		
Toluene			0.100	0.1033		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.09454		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1871		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09528		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-50884/2-A
Matrix: Solid
Analysis Batch: 51006

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50884

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1132		mg/Kg		113	70 - 130	5	35
Toluene			0.100	0.1110		mg/Kg		111	70 - 130	7	35
Ethylbenzene			0.100	0.09905		mg/Kg		99	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1953		mg/Kg		98	70 - 130	4	35
o-Xylene			0.100	0.1006		mg/Kg		101	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 880-26842-A-1-G MS
Matrix: Solid
Analysis Batch: 51006

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	0.193	F1	0.101	0.2291	F1	mg/Kg		36	70 - 130		
Ethylbenzene	0.237	F1	0.101	0.2480	F1	mg/Kg		10	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

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

Lab Sample ID: 880-26842-A-1-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51006 — **Prep Batch: 50884**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
m-Xylene & p-Xylene	0.575	F1	0.201	0.5756	F1	mg/Kg		0.3	70 - 130
o-Xylene	0.217	F1	0.101	0.2325	F1	mg/Kg		15	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*64*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*

Lab Sample ID: 880-26842-A-1-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51006 — **Prep Batch: 50884**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.193	F1	0.0990	0.2126	F1	mg/Kg		20	70 - 130	7	35
Ethylbenzene	0.237	F1	0.0990	0.2397	F1	mg/Kg		2	70 - 130	3	35
m-Xylene & p-Xylene	0.575	F1	0.198	0.5704	F1	mg/Kg		-2	70 - 130	1	35
o-Xylene	0.217	F1	0.0990	0.2298	F1	mg/Kg		13	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*

Lab Sample ID: MB 880-50904/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51006 — **Prep Batch: 50904**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/11/23 11:19	04/13/23 12:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*04/11/23 11:19*	*04/13/23 12:26*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*04/11/23 11:19*	*04/13/23 12:26*	*1*

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

Lab Sample ID: MB 880-50902/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50866 — **Prep Batch: 50902**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/11/23 11:07	04/11/23 21:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/11/23 11:07	04/11/23 21:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/11/23 11:07	04/11/23 21:06	1

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

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

Lab Sample ID: MB 880-50902/1-A
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50902

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg		04/11/23 11:07	04/11/23 21:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*04/11/23 11:07*	*04/11/23 21:06*	*1*
o-Terphenyl	*92*		*70 - 130*	*04/11/23 11:07*	*04/11/23 21:06*	*1*

Lab Sample ID: LCS 880-50902/2-A
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50902

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1136		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	967.0		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*9*	*S1-*	*70 - 130*
o-Terphenyl	*7*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-50902/3-A
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1102		mg/Kg		110	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	946.9		mg/Kg		95	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*9*	*S1-*	*70 - 130*
o-Terphenyl	*7*	*S1-*	*70 - 130*

Lab Sample ID: 880-26982-A-1-D MS
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50902

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	996	1099		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1051		mg/Kg		103	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*67*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

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

Lab Sample ID: 880-26982-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50866 — **Prep Batch: 50902**

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	1116		mg/Kg		110	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1072		mg/Kg		105	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*69*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50991/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 51106

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/13/23 21:39	1

Lab Sample ID: LCS 880-50991/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 51106

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	245.9		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-50991/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 51106

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	241.2		mg/Kg		96	90 - 110	2	20

Lab Sample ID: 880-26987-A-10-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 51106

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	388		251	624.9		mg/Kg		94	90 - 110		

Lab Sample ID: 880-26987-A-10-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 51106

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	388		251	620.3		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

GC VOA

Prep Batch: 50884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Total/NA	Solid	5035	
MB 880-50884/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-50884/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50884/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26842-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-26842-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 50904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-50904/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 51006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Total/NA	Solid	8021B	50884
MB 880-50884/5-A	Method Blank	Total/NA	Solid	8021B	50884
MB 880-50904/5-A	Method Blank	Total/NA	Solid	8021B	50904
LCS 880-50884/1-A	Lab Control Sample	Total/NA	Solid	8021B	50884
LCSD 880-50884/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50884
880-26842-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	50884
880-26842-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	50884

Analysis Batch: 51163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 50866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Total/NA	Solid	8015B NM	50902
MB 880-50902/1-A	Method Blank	Total/NA	Solid	8015B NM	50902
LCS 880-50902/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50902
LCSD 880-50902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50902
880-26982-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	50902
880-26982-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50902

Prep Batch: 50902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Total/NA	Solid	8015NM Prep	
MB 880-50902/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50902/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26982-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26982-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 50953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

HPLC/IC

Leach Batch: 50991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Soluble	Solid	DI Leach	
MB 880-50991/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50991/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50991/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26987-A-10-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26987-A-10-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 51106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4485-1	SS07A	Soluble	Solid	300.0	50991
MB 880-50991/1-A	Method Blank	Soluble	Solid	300.0	50991
LCS 880-50991/2-A	Lab Control Sample	Soluble	Solid	300.0	50991
LCSD 880-50991/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50991
880-26987-A-10-C MS	Matrix Spike	Soluble	Solid	300.0	50991
880-26987-A-10-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	50991

Lab Chronicle

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

Client Sample ID: SS07A

Date Collected: 04/10/23 10:20
Date Received: 04/10/23 12:50

Lab Sample ID: 890-4485-1

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	50884	04/11/23 10:01	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51006	04/14/23 05:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51163	04/14/23 10:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			50953	04/12/23 09:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	50902	04/11/23 11:07	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50866	04/12/23 00:26	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50991	04/12/23 12:49	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51106	04/13/23 23:15	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

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
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

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: Gadwall 35 Federal 005H

Job ID: 890-4485-1
SDG: 03D2024168

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4485-1	SS07A	Solid	04/10/23 10:20	04/10/23 12:50	1

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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:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum LLC	Company Name:	Ensolum LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-557-8895	Email:	hgreen@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:	Gadwall 35 Federal 005H	Turn Around	
Project Number:	03D2024168	☑ Routine ☐ Rush	
Project Location:	32.1672, -103.6372	Due Date:	5 Day
Sampler's Name:	Ronni Hayes	TAT starts the day received by the lab, if received by 4:30pm	
Cost Center #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	NM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	BTEX	TPH
SS07A	S	4/10/2023	1620	1'	Grab	1		X	X	X

690-4485 Chain of Custody

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2S0_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

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		4.10.23 1258	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4485-1
SDG Number: 03D2024168

Login Number: 4485
List Number: 1
Creator: Clifton, Cloe

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: 890-4485-1
SDG Number: 03D2024168

Login Number: 4485
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/11/23 10:22 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: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 4/16/2023 10:27:55 AM

JOB DESCRIPTION

Gadwall 35 Federal 005H
SDG NUMBER 03D2024168

JOB NUMBER

890-4487-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

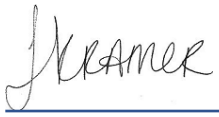
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: Gadwall 35 Federal 005H

Laboratory Job ID: 890-4487-1
SDG: 03D2024168

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Job ID: 890-4487-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4487-1

Receipt
The samples were received on 4/10/2023 12:50 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 5.2°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: SS05A (890-4487-1). Evidence of matrix interferences is not obvious.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-50902/2-A) and (LCSD 880-50902/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-26982-A-1-D MS) and (880-26982-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS05A (890-4487-1) and SS06A (890-4487-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-50902 and analytical batch 880-50866 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Client Sample ID: SS05A

Lab Sample ID: 890-4487-1
Matrix: Solid
Date Collected: 04/10/23 10:10
Date Received: 04/10/23 12:50
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 23:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 23:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 23:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/13/23 10:15	04/14/23 23:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 23:49	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/13/23 10:15	04/14/23 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*55*	*S1-*	*70 - 130*	*04/13/23 10:15*	*04/14/23 23:49*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/13/23 10:15*	*04/14/23 23:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			04/16/23 11:04	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			04/12/23 09:01	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		04/11/23 11:07	04/12/23 01:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/11/23 11:07	04/12/23 01:07	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/11/23 11:07	04/12/23 01:07	1
Total TPH	<49.9	U	49.9		mg/Kg		04/11/23 11:07	04/12/23 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*04/11/23 11:07*	*04/12/23 01:07*	*1*
o-Terphenyl	*71*		*70 - 130*	*04/11/23 11:07*	*04/12/23 01:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99.0**		5.04		mg/Kg			04/13/23 23:33	1

Client Sample ID: SS06A

Lab Sample ID: 890-4487-2
Matrix: Solid
Date Collected: 04/10/23 10:15
Date Received: 04/10/23 12:50
Sample Depth: 1

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		04/13/23 10:15	04/15/23 00:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/13/23 10:15	04/15/23 00:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/13/23 10:15	04/15/23 00:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/13/23 10:15	04/15/23 00:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/13/23 10:15	04/15/23 00:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/13/23 10:15	04/15/23 00:09	1

Client Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Client Sample ID: SS06A

Date Collected: 04/10/23 10:15
Date Received: 04/10/23 12:50
Sample Depth: 1

Lab Sample ID: 890-4487-2

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*04/13/23 10:15*	*04/15/23 00:09*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*04/13/23 10:15*	*04/15/23 00:09*	*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			04/16/23 11:04	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			04/12/23 09:01	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		04/11/23 11:07	04/12/23 01:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/11/23 11:07	04/12/23 01:27	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/11/23 11:07	04/12/23 01:27	1
Total TPH	<49.9	U	49.9	mg/Kg		04/11/23 11:07	04/12/23 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*04/11/23 11:07*	*04/12/23 01:27*	*1*
o-Terphenyl	*72*		*70 - 130*	*04/11/23 11:07*	*04/12/23 01:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**139**		5.00	mg/Kg			04/13/23 23:38	1

Surrogate Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-27032-A-1-H MS	Matrix Spike	105	105
880-27032-A-1-I MSD	Matrix Spike Duplicate	102	102
890-4487-1	SS05A	55 S1-	97
890-4487-2	SS06A	102	88
LCS 880-51035/1-A	Lab Control Sample	103	101
LCSD 880-51035/2-A	Lab Control Sample Dup	100	103
MB 880-51035/5-A	Method Blank	94	88
MB 880-51143/5-A	Method Blank	86	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-26982-A-1-D MS	Matrix Spike	74	67 S1-
880-26982-A-1-E MSD	Matrix Spike Duplicate	76	69 S1-
890-4487-1	SS05A	66 S1-	71
890-4487-2	SS06A	65 S1-	72
LCS 880-50902/2-A	Lab Control Sample	9 S1-	7 S1-
LCSD 880-50902/3-A	Lab Control Sample Dup	9 S1-	7 S1-
MB 880-50902/1-A	Method Blank	83	92

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-51035/5-A
Matrix: Solid
Analysis Batch: 51140

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51035

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 21:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 21:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 21:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/13/23 10:15	04/14/23 21:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/13/23 10:15	04/14/23 21:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/13/23 10:15	04/14/23 21:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*04/13/23 10:15*	*04/14/23 21:44*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*04/13/23 10:15*	*04/14/23 21:44*	*1*

Lab Sample ID: LCS 880-51035/1-A
Matrix: Solid
Analysis Batch: 51140

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51035

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1020		mg/Kg		102	70 - 130		
Toluene			0.100	0.1058		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.1097		mg/Kg		110	70 - 130		
m-Xylene & p-Xylene			0.200	0.2249		mg/Kg		112	70 - 130		
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130		

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

Lab Sample ID: LCSD 880-51035/2-A
Matrix: Solid
Analysis Batch: 51140

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 51035

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09798		mg/Kg		98	70 - 130	4	35
Toluene			0.100	0.1005		mg/Kg		101	70 - 130	5	35
Ethylbenzene			0.100	0.1038		mg/Kg		104	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2139		mg/Kg		107	70 - 130	5	35
o-Xylene			0.100	0.09542		mg/Kg		95	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-27032-A-1-H MS
Matrix: Solid
Analysis Batch: 51140

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 51035

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.100	0.1032		mg/Kg		103	70 - 130		
Toluene	<0.00199	U	0.100	0.1031		mg/Kg		103	70 - 130		

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QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

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

Lab Sample ID: 880-27032-A-1-H MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51140 — **Prep Batch: 51035**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.1057		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2144		mg/Kg		107	70 - 130
o-Xylene	<0.00199	U	0.100	0.09496		mg/Kg		95	70 - 130

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

Lab Sample ID: 880-27032-A-1-I MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51140 — **Prep Batch: 51035**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.09068		mg/Kg		92	70 - 130	13	35
Toluene	<0.00199	U	0.0990	0.09329		mg/Kg		94	70 - 130	10	35
Ethylbenzene	<0.00199	U	0.0990	0.09687		mg/Kg		98	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1981		mg/Kg		100	70 - 130	8	35
o-Xylene	<0.00199	U	0.0990	0.08709		mg/Kg		88	70 - 130	9	35

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

Lab Sample ID: MB 880-51143/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51140 — **Prep Batch: 51143**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/14/23 08:55	04/14/23 11:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/14/23 08:55	04/14/23 11:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/14/23 08:55	04/14/23 11:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/14/23 08:55	04/14/23 11:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/14/23 08:55	04/14/23 11:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/14/23 08:55	04/14/23 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*04/14/23 08:55*	*04/14/23 11:00*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*04/14/23 08:55*	*04/14/23 11:00*	*1*

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

Lab Sample ID: MB 880-50902/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50866 — **Prep Batch: 50902**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/11/23 11:07	04/11/23 21:06	1

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QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

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

Lab Sample ID: MB 880-50902/1-A
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50902

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/11/23 11:07	04/11/23 21:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/11/23 11:07	04/11/23 21:06	1
Total TPH	<50.0	U	50.0		mg/Kg		04/11/23 11:07	04/11/23 21:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*04/11/23 11:07*	*04/11/23 21:06*	*1*
o-Terphenyl	*92*		*70 - 130*	*04/11/23 11:07*	*04/11/23 21:06*	*1*

Lab Sample ID: LCS 880-50902/2-A
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50902

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1136		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	967.0		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*9*	*S1-*	*70 - 130*
o-Terphenyl	*7*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-50902/3-A
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1102		mg/Kg		110	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	946.9		mg/Kg		95	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*9*	*S1-*	*70 - 130*
o-Terphenyl	*7*	*S1-*	*70 - 130*

Lab Sample ID: 880-26982-A-1-D MS
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50902

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	996	1099		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1051		mg/Kg		103	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

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

Lab Sample ID: 880-26982-A-1-D MS
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50902

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

Lab Sample ID: 880-26982-A-1-E MSD
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 50902

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	1116		mg/Kg		110	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1072		mg/Kg		105	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	76		70 - 130
o-Terphenyl	69	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50991/1-A
Matrix: Solid
Analysis Batch: 51106

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/13/23 21:39	1

Lab Sample ID: LCS 880-50991/2-A
Matrix: Solid
Analysis Batch: 51106

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	245.9		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-50991/3-A
Matrix: Solid
Analysis Batch: 51106

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	241.2		mg/Kg		96	90 - 110	2	20

Lab Sample ID: 880-26987-A-10-C MS
Matrix: Solid
Analysis Batch: 51106

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	388		251	624.9		mg/Kg		94	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-26987-A-10-D MSD
Matrix: Solid
Analysis Batch: 51106

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	388		251	620.3		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

GC VOA

Prep Batch: 51035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Total/NA	Solid	5035	
890-4487-2	SS06A	Total/NA	Solid	5035	
MB 880-51035/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-51035/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-51035/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-27032-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
880-27032-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 51140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Total/NA	Solid	8021B	51035
890-4487-2	SS06A	Total/NA	Solid	8021B	51035
MB 880-51035/5-A	Method Blank	Total/NA	Solid	8021B	51035
MB 880-51143/5-A	Method Blank	Total/NA	Solid	8021B	51143
LCS 880-51035/1-A	Lab Control Sample	Total/NA	Solid	8021B	51035
LCSD 880-51035/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	51035
880-27032-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	51035
880-27032-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	51035

Prep Batch: 51143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-51143/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 51259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Total/NA	Solid	Total BTEX	
890-4487-2	SS06A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 50866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Total/NA	Solid	8015B NM	50902
890-4487-2	SS06A	Total/NA	Solid	8015B NM	50902
MB 880-50902/1-A	Method Blank	Total/NA	Solid	8015B NM	50902
LCS 880-50902/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50902
LCSD 880-50902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50902
880-26982-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	50902
880-26982-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50902

Prep Batch: 50902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Total/NA	Solid	8015NM Prep	
890-4487-2	SS06A	Total/NA	Solid	8015NM Prep	
MB 880-50902/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50902/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26982-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26982-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

GC Semi VOA

Analysis Batch: 50955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Total/NA	Solid	8015 NM	
890-4487-2	SS06A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Soluble	Solid	DI Leach	
890-4487-2	SS06A	Soluble	Solid	DI Leach	
MB 880-50991/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50991/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50991/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26987-A-10-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26987-A-10-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 51106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4487-1	SS05A	Soluble	Solid	300.0	50991
890-4487-2	SS06A	Soluble	Solid	300.0	50991
MB 880-50991/1-A	Method Blank	Soluble	Solid	300.0	50991
LCS 880-50991/2-A	Lab Control Sample	Soluble	Solid	300.0	50991
LCSD 880-50991/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50991
880-26987-A-10-C MS	Matrix Spike	Soluble	Solid	300.0	50991
880-26987-A-10-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	50991

Lab Chronicle

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Client Sample ID: SS05A
Date Collected: 04/10/23 10:10
Date Received: 04/10/23 12:50

Lab Sample ID: 890-4487-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	51035	04/13/23 10:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51140	04/14/23 23:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51259	04/16/23 11:04	AJ	EET MID
Total/NA	Analysis	8015 NM		1			50955	04/12/23 09:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	50902	04/11/23 11:07	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50866	04/12/23 01:07	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	50991	04/12/23 12:49	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51106	04/13/23 23:33	SMC	EET MID

Client Sample ID: SS06A
Date Collected: 04/10/23 10:15
Date Received: 04/10/23 12:50

Lab Sample ID: 890-4487-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	51035	04/13/23 10:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51140	04/15/23 00:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51259	04/16/23 11:04	AJ	EET MID
Total/NA	Analysis	8015 NM		1			50955	04/12/23 09:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	50902	04/11/23 11:07	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50866	04/12/23 01:27	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	50991	04/12/23 12:49	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51106	04/13/23 23:38	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

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
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

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: Gadwall 35 Federal 005H

Job ID: 890-4487-1
SDG: 03D2024168

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4487-1	SS05A	Solid	04/10/23 10:10	04/10/23 12:50	1
890-4487-2	SS06A	Solid	04/10/23 10:15	04/10/23 12:50	1

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum LLC	Company Name:	Ensolum LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-557-8895	Email:	hgreen@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:	Gadwall 35 Federal 005H	Turn Around	
Project Number:	03D2024168	☑ Routine ☐ Rush	
Project Location:	32.1672, -103.6372	Due Date:	5 Day
Sampler's Name:	Ronni Hayes	TAT starts the day received by the lab, if received by 4:30pm	
Cost Center #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TMC07
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	BTEX	TPH
SS05A	S	4/10/2023	1010	1'	Grab	1		X	X	X
SS06A	S	4/10/2023	1015	1'	Grab	1		X	X	X

890-4487 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

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		4.10.23 1250	2		
3			4		
5			6		

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4487-1
SDG Number: 03D2024168

Login Number: 4487
List Number: 1
Creator: Clifton, Cloe

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: 890-4487-1
SDG Number: 03D2024168

Login Number: 4487
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/11/23 10:22 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 D

NMOCD Notifications

From: Enviro, OCD, EMNRD
To: Hadlie Green
Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] COP - Sampling Notification (Week of 4/10/2023)
Date: Thursday, April 6, 2023 1:01:21 PM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

Hadlie,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Hadlie Green <hgreen@ensolum.com>
Sent: Thursday, April 6, 2023 9:01 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Kalei Jennings <kjennings@ensolum.com>
Subject: [EXTERNAL] COP - Sampling Notification (Week of 4/10/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

ConocoPhillips Company (COP) plans to complete sampling activities at the following site the week of April 10, 2023.

- Gadwall 35 Federal 005H / NAPP2308028560
  - Sampling Date: 4/10/2023 @ 10:00 AM MST

Thank you,

Hadlie Green
Project Geologist
432-557-8895
hgreen@ensolum.com
Ensolum, LLC

ENSOLUM

APPENDIX E

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2308028560
District RP	
Facility ID	fAPP2203844276
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Charles Beauvais	Contact Telephone	(575) 988-2043
Contact email	Charles.R.Beauvais@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2308028560
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.1672 Longitude -103.6372
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Gadwall 35 Federal 005H	Site Type	Tank Battery
Date Release Discovered	March 4, 2023	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
P	35	24S	32E	Lea

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

Nature and Volume of Release

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

■ Crude Oil	Volume Released (bbls) 0.001	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a backed up heater treater resulting in a flare fire.
No fluid was recovered due to the fire burning off any standing fluid. The release resulted in a flare fire on and off the pad.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2308028560
District RP	
Facility ID	fAPP2203844276
Application ID	

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

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Immediate notice was given by Charles Beauvais via e-mail March 6, 2023 at 12:30 pm to OCD.enviro@state.nm.us.

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: 3/17/2023

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

OCD Only

Received by: Jocelyn Harimon Date: 03/21/2023

Facility Name & Well Number(s):	Gadwall 35-5H				Release Discovery Date & Time:	3-4-23 8:30am		NAPP2308028560	
Provide any known details about the event:	Fluid came out the flare				Primary Cause (dropdown):	Work pressures e.g. production vs. safety	Secondary Cause (dropdown):		
	Recovered Volume (bbl.) (if available, not included in volume calculations)	Method of Determination (dropdown)	Release Type (dropdown):		> 1/2" of Rain in Last 24 Hours (dropdown):		% Rainwater Recovered (not included in volume calculations, informational):		
Permian / Asset Area: DBE - Asset Avg.	0	Known volume from geometry	Oil		No				
Known Volume (dropdown):	No								
Known Area (dropdown):	Yes	Mapped Area (sq. ft.)	Average Depth (in.)	On/Off Pad		Soil Spilled-Fluid Saturation	Total Estimated Volume of Spill (bbl.)		
		30	0.016	On-Pad		10.50%	0.0007		

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

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 199111
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	3/21/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2308028560
District RP	
Facility ID	fAPP2203844276
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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2308028560
District RP	
Facility ID	fAPP2203844276
Application ID	

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

Printed Name: _Jacob Laird_____ Title: _Environmental Engineer_____

Signature: Jacob Laird Date: __4/26/2023_____

email: _Jacob.Laird@Conocophillips.com_____ Telephone: _575-703-5482_____

OCD Only

Received by: Jocelyn Harimon Date: 05/01/2023

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2308028560
District RP	
Facility ID	fAPP2203844276
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: _Jacob Laird_____ Title: _ Environmental Engineer_____

Signature: Jacob Laird Date: _4/26/2023_____

email: __Jacob.Laird@Conocophillips.com_____ Telephone: ___575-703-5482_____

OCD Only

Received by: Jocelyn Harimon Date: 05/01/2023

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

Closure Approved by: Nelson Velez Date: 07/24/2023

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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 212313

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 212313
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	7/24/2023