



October 7, 2022

District 1
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

**Re: Closure Request
Harrier 35 Federal Com #001H
Incident Number NAPP2222438377
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 site assessment and soil sampling activities performed at the Harrier 35 Federal Com #001H (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a release of crude oil within the lined earthen berm containment at the Site. Based on field observations, field screening activities, and laboratory analytical results from the soil sampling events, COG is submitting this Closure Request, describing remediation that has occurred and requesting closure for Incident Number NAPP2222438377.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit G, Section 35, Township 25 South, Range 32 East, in Lea County, New Mexico (32.08875° N, 103.6421° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On July 12, 2022, a tank overflow resulted in the release of approximately 9.5 barrels (bbls) of crude oil into the lined earthen berm containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 9 bbls of the released fluids were recovered from within the lined containment. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 on August 12, 2022. The release was assigned Incident Number NAPP2222438377. A 48-hour advance notice of liner inspection was provided via email on August 29, 2022 to the NMOCD District I office. A liner integrity inspection was conducted by Ensolum personnel on September 2, 2022 following the fluid recovery, and upon inspection the liner was determined to be insufficient.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be 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) well 320504103361801, located approximately 2.25 miles east of the Site. The groundwater well has a reported depth to groundwater of 257 feet bgs and a total depth of 320 feet bgs. Regionally, depth to groundwater ranges from 107 feet to 450 feet bgs. Depth to water beneath the Site has been *reasonably determined* to be greater than 100 feet bgs, based on nearby water well data and regional depth to water measurements. Well data utilized for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 158 feet 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 (medium potential karst designation area). Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On September 14, 2022, Ensolum personnel visited the Site to evaluate the release extent and conduct site assessment activities. Ensolum personnel advanced one borehole (BH01) via hand auger directly below the location of the tear in the liner identified during the liner integrity inspection. Two soil samples were collected from the borehole (BH01 and BH01A) at depths of 0.5 feet and 2 feet bgs to assess for the presence or absence of impacted soil. On September 27, 2022, four soil assessment samples (SS01 through SS04) were collected at a depth of 0.5 feet bgs around the lined containment to confirm the lateral extent of the release. Soil from the borehole and surface assessment samples were field screened for volatile organic compounds (VOCs) and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the borehole were documented on a lithologic/soil sampling log, which is included in Appendix B. The borehole was backfilled with the soil removed and the tear in the liner was repaired. The bore hole and surface sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visit and is included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for bore hole soil samples BH01 and BH01A indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Site Closure Criteria. In addition, surface assessment samples SS01 through SS04 were compliant with the Site Closure Criteria and successfully defines the lateral extent of the release. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

Harrier 35 Federal Com #001H
COG Operating, LLC



CLOSURE REQUEST

Following the failed liner integrity inspection at the Site, Ensolum personnel advanced one borehole, (BH01), within the lined containment to assess for the presence or absence of soil impacts resulting from the July 12, 2022 crude oil release within lined containment. Two delineation soil samples were collected from borehole BH01, at depths of 0.5 feet and 2 feet bgs. Laboratory analytical results for the borehole delineation samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Site Closure Criteria. In addition, surface assessment samples SS01 through SS04, collected at 0.5 feet bgs, were compliant with the most stringent Table 1 Closure Criteria. The release was contained laterally by the lined containment and the tear in the liner was subsequently repaired.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria directly beneath the tear in the liner, COG respectfully requests NFA for Incident Number NAPP2222438377. The final Form C- 141 is included in Appendix F. If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC

A handwritten signature in black ink that reads "Kalei Jennings".

Kalei Jennings
Senior Project Manager

A handwritten signature in black ink that reads "Daniel R. Moir".

Daniel R. Moir, PG
Senior Managing Geologist

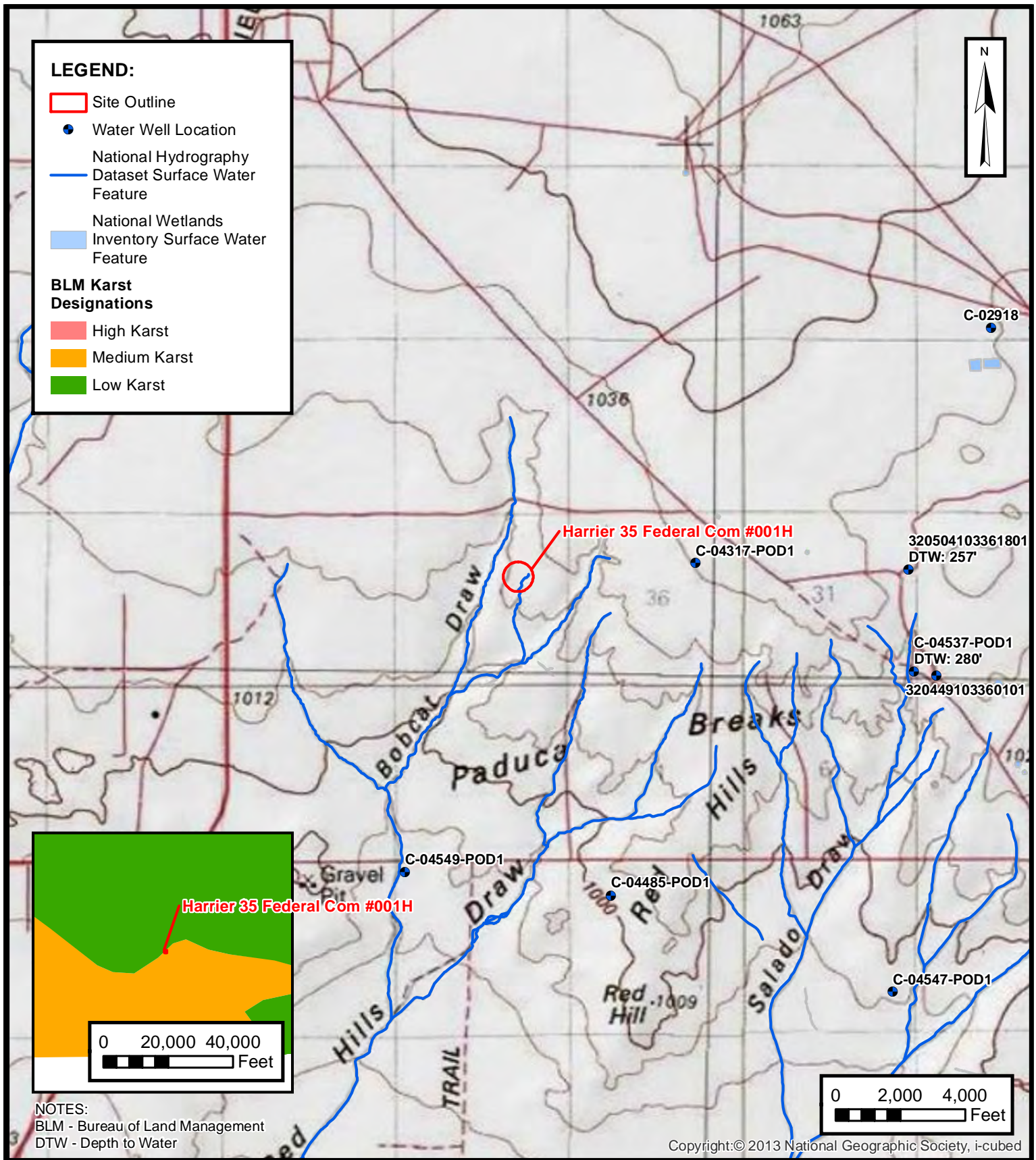
cc: Charles Beauvais, ConocoPhillips
Bureau of Land Management

Appendices:

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



FIGURES



SITE RECEPTOR MAP

COG OPERATING, LLC
HARRIER 35 FEDERAL COM #001H
NAPP2222438377
Unit G, Sec 35 T25S R32E
Lea County, New Mexico

FIGURE
1

**DELINEATION SOIL SAMPLE LOCATIONS**

COG OPERATING, LLC
 HARRIER 35 FEDERAL COM #001H
 NAPP2222438377
 Unit G, Sec 35 T25S R32E
 Lea County, New Mexico

FIGURE**2**



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Harrier 35 Federal Com #001H
 COG Operating, LLC
 Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Borehole Soil Samples										
BH01	09/14/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	64.4
BH01A	09/14/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	63.7
Lateral Delineation Soil Samples										
SS01	09/27/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	18.5
SS02	09/27/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	14.8
SS03	09/27/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	22.3
SS04	09/27/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	168

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX A

Referenced Well Records



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:


Site Information ▼

Geographic Area:

United States ▼

GO

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USGS 320504103361801 25S.33E.31.24232

Available data for this site

SUMMARY OF ALL AVAILABLE DATA ▼

GO

Well Site

DESCRIPTION:

Latitude 32°05'21.6", Longitude 103°36'12.7" NAD83

Lea County, New Mexico , Hydrologic Unit 13070001

Well depth: 320 feet

Land surface altitude: 3,403.00 feet above NGVD29.

Well completed in "Other aquifers" (N9999OTHER) national aquifer.

Well completed in "Ogallala Formation" (121OGLL) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-07-26	2013-01-16	3
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)

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[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: NWIS Site Information for USA: Site Inventory

URL: [https://waterdata.usgs.gov/nwis/inventory?](https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320504103361801)

[agency_code=USGS&site_no=320504103361801](https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320504103361801)



Page Contact Information: [New Mexico Water Data Support Team](#)

Page Last Modified: 2022-08-15 22:31:12 EDT

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APPENDIX B

Lithologic/Soil Sampling Log

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APPENDIX C

Photographic Log



Photographic Log

COG Operating, LLC

Harrier 35 Federal Com #001H

Incident Number NAPP2222438377



Photograph 1 Date: 09/02/2022
Description: View of tank battery and secondary containment, facing south.



Photograph 2 Date: 09/02/2022
Description: View of tank battery and secondary containment, facing northeast.



Photograph 3 Date: 09/14/2022
Description: View of tear in the liner found during remediation activities.



Photograph 4 Date: 09/14/2022
Description: View of soil sampling activities, facing southwest.



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2962-1

Laboratory Sample Delivery Group: 03D2024083

Client Project/Site: Harrier 35

For:

Ensolum
2351 W. Northwest Hwy
Suite 1203
Dallas, Texas 75220

Attn: Joe Gable

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

Authorized for release by:

9/26/2022 2:32:58 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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results through



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www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: Harrier 35

Laboratory Job ID: 890-2962-1
SDG: 03D2024083

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Definitions/Glossary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Job ID: 890-2962-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-2962-1**

Receipt

The samples were received on 9/14/2022 3:00 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 27.4°C

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: BH01 (890-2962-1) and BH01A (890-2962-2). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.

Samples out of temp range 27.6/27.4 Client wanted to proceed with testing.

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35074 and analytical batch 880-35228 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-35074/1-A) and (LCSD 880-35074/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH01A (890-2962-2). 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 880-34675 and analytical batch 880-34626 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-2976-A-1-C MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Client Sample ID: BH01

Lab Sample ID: 890-2962-1

Date Collected: 09/14/22 08:35

Matrix: Solid

Date Received: 09/14/22 15:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/21/22 14:46	09/23/22 21:56	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/21/22 14:46	09/23/22 21:56	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/21/22 14:46	09/23/22 21:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/21/22 14:46	09/23/22 21:56	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/21/22 14:46	09/23/22 21:56	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/21/22 14:46	09/23/22 21:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	09/21/22 14:46	09/23/22 21:56	1
1,4-Difluorobenzene (Surr)	76		70 - 130	09/21/22 14:46	09/23/22 21:56	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/26/22 15:03	1

Method: 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			09/19/22 11:13	1

Method: 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		09/16/22 11:48	09/17/22 07:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/16/22 11:48	09/17/22 07:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/16/22 11:48	09/17/22 07:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	09/16/22 11:48	09/17/22 07:48	1
o-Terphenyl	104		70 - 130	09/16/22 11:48	09/17/22 07:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64.4		4.96	mg/Kg			09/21/22 05:35	1

Client Sample ID: BH01A

Lab Sample ID: 890-2962-2

Date Collected: 09/14/22 09:05

Matrix: Solid

Date Received: 09/14/22 15:00

Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/21/22 14:46	09/23/22 22:22	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/21/22 14:46	09/23/22 22:22	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/21/22 14:46	09/23/22 22:22	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/21/22 14:46	09/23/22 22:22	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/21/22 14:46	09/23/22 22:22	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/21/22 14:46	09/23/22 22:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	147	S1+	70 - 130	09/21/22 14:46	09/23/22 22:22	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Client Sample ID: BH01A

Lab Sample ID: 890-2962-2

Date Collected: 09/14/22 09:05

Matrix: Solid

Date Received: 09/14/22 15:00

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	09/21/22 14:46	09/23/22 22:22	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/26/22 15:03	1

Method: 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			09/19/22 11:13	1

Method: 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		09/16/22 11:48	09/17/22 03:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/16/22 11:48	09/17/22 03:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/16/22 11:48	09/17/22 03:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			09/16/22 11:48	09/17/22 03:30	1
o-Terphenyl	101		70 - 130			09/16/22 11:48	09/17/22 03:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.7		4.99	mg/Kg			09/21/22 05:40	1

Surrogate Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

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)
890-2942-A-1-E MS	Matrix Spike	110	74
890-2942-A-1-F MSD	Matrix Spike Duplicate	120	77
890-2962-1	BH01	115	76
890-2962-2	BH01A	147 S1+	95
LCS 880-35074/1-A	Lab Control Sample	109	64 S1-
LCSD 880-35074/2-A	Lab Control Sample Dup	131 S1+	79
MB 880-35074/5-A	Method Blank	93	76
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)
890-2962-1	BH01	106	104
890-2962-2	BH01A	93	101
890-2976-A-1-C MS	Matrix Spike	133 S1+	107
890-2976-A-1-D MSD	Matrix Spike Duplicate	97	94
LCS 880-34675/2-A	Lab Control Sample	125	117
LCSD 880-34675/3-A	Lab Control Sample Dup	120	111
MB 880-34675/1-A	Method Blank	135 S1+	145 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-35074/5-A

Matrix: Solid

Analysis Batch: 35228

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35074

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/21/22 14:46	09/23/22 11:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/21/22 14:46	09/23/22 11:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/21/22 14:46	09/23/22 11:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/21/22 14:46	09/23/22 11:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/21/22 14:46	09/23/22 11:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/21/22 14:46	09/23/22 11:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	09/21/22 14:46	09/23/22 11:43	1
1,4-Difluorobenzene (Surr)	76		70 - 130	09/21/22 14:46	09/23/22 11:43	1

Lab Sample ID: LCS 880-35074/1-A

Matrix: Solid

Analysis Batch: 35228

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07093		mg/Kg		71	70 - 130
Toluene	0.100	0.08035		mg/Kg		80	70 - 130
Ethylbenzene	0.100	0.07541		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	0.200	0.1518		mg/Kg		76	70 - 130
o-Xylene	0.100	0.07510		mg/Kg		75	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130

Lab Sample ID: LCSD 880-35074/2-A

Matrix: Solid

Analysis Batch: 35228

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35074

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09722		mg/Kg		97	70 - 130	31	35
Toluene	0.100	0.09378		mg/Kg		94	70 - 130	15	35
Ethylbenzene	0.100	0.09269		mg/Kg		93	70 - 130	21	35
m-Xylene & p-Xylene	0.200	0.1887		mg/Kg		94	70 - 130	22	35
o-Xylene	0.100	0.09312		mg/Kg		93	70 - 130	21	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	79		70 - 130

Lab Sample ID: 890-2942-A-1-E MS

Matrix: Solid

Analysis Batch: 35228

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35074

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.100	0.02522	F1	mg/Kg		25	70 - 130
Toluene	<0.00201	U F1	0.100	0.02432	F1	mg/Kg		24	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

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

Lab Sample ID: 890-2942-A-1-E MS

Matrix: Solid

Analysis Batch: 35228

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35074

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1	0.100	0.02588	F1	mg/Kg		26	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.05207	F1	mg/Kg		26	70 - 130
o-Xylene	<0.00201	U F1	0.100	0.02747	F1	mg/Kg		27	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	74		70 - 130

Lab Sample ID: 890-2942-A-1-F MSD

Matrix: Solid

Analysis Batch: 35228

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35074

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0998	0.02569	F1	mg/Kg		26	70 - 130	2	35
Toluene	<0.00201	U F1	0.0998	0.02507	F1	mg/Kg		25	70 - 130	3	35
Ethylbenzene	<0.00201	U F1	0.0998	0.02505	F1	mg/Kg		25	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.05019	F1	mg/Kg		25	70 - 130	4	35
o-Xylene	<0.00201	U F1	0.0998	0.02817	F1	mg/Kg		28	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	77		70 - 130

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

Lab Sample ID: MB 880-34675/1-A

Matrix: Solid

Analysis Batch: 34626

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34675

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		09/16/22 11:48	09/17/22 03:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/16/22 11:48	09/17/22 03:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/16/22 11:48	09/17/22 03:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130	09/16/22 11:48	09/17/22 03:30	1
o-Terphenyl	145	S1+	70 - 130	09/16/22 11:48	09/17/22 03:30	1

Lab Sample ID: LCS 880-34675/2-A

Matrix: Solid

Analysis Batch: 34626

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1086		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1082		mg/Kg		108	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

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

Lab Sample ID: LCS 880-34675/2-A
Matrix: Solid
Analysis Batch: 34626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34675

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	125		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: LCSD 880-34675/3-A
Matrix: Solid
Analysis Batch: 34626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34675

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1081		mg/Kg		108	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	1029		mg/Kg		103	70 - 130	5	20
Surrogate	LCSD	LCSD									
	%Recovery	Qualifier									
1-Chlorooctane	120										
o-Terphenyl	111										

Lab Sample ID: 890-2976-A-1-C MS
Matrix: Solid
Analysis Batch: 34626

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34675

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	996	838.9		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1028		mg/Kg		98	70 - 130		
Surrogate	MS	MS									
	%Recovery	Qualifier									
1-Chlorooctane	133	S1+									
o-Terphenyl	107										

Lab Sample ID: 890-2976-A-1-D MSD
Matrix: Solid
Analysis Batch: 34626

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34675

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	999	809.4		mg/Kg		81	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	910.9		mg/Kg		86	70 - 130	12	20
Surrogate	MSD	MSD									
	%Recovery	Qualifier									
1-Chlorooctane	97										
o-Terphenyl	94										

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34666/1-A

Matrix: Solid

Analysis Batch: 34958

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			09/21/22 03:24	1

Lab Sample ID: LCS 880-34666/2-A

Matrix: Solid

Analysis Batch: 34958

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	255.4		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-34666/3-A

Matrix: Solid

Analysis Batch: 34958

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	251.8		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 880-19314-A-7-B MS

Matrix: Solid

Analysis Batch: 34958

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	31.7		250	281.8		mg/Kg		100	90 - 110

Lab Sample ID: 880-19314-A-7-C MSD

Matrix: Solid

Analysis Batch: 34958

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	31.7		250	281.6		mg/Kg		100	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

GC VOA

Prep Batch: 35074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Total/NA	Solid	5035	
890-2962-2	BH01A	Total/NA	Solid	5035	
MB 880-35074/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35074/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35074/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2942-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2942-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 35228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Total/NA	Solid	8021B	35074
890-2962-2	BH01A	Total/NA	Solid	8021B	35074
MB 880-35074/5-A	Method Blank	Total/NA	Solid	8021B	35074
LCS 880-35074/1-A	Lab Control Sample	Total/NA	Solid	8021B	35074
LCSD 880-35074/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35074
890-2942-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	35074
890-2942-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	35074

Analysis Batch: 35420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Total/NA	Solid	Total BTEX	
890-2962-2	BH01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 34626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Total/NA	Solid	8015B NM	34675
MB 880-34675/1-A	Method Blank	Total/NA	Solid	8015B NM	34675
LCS 880-34675/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34675
LCSD 880-34675/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34675
890-2976-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	34675
890-2976-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34675

Analysis Batch: 34628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-2	BH01A	Total/NA	Solid	8015B NM	34675

Prep Batch: 34675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Total/NA	Solid	8015NM Prep	
890-2962-2	BH01A	Total/NA	Solid	8015NM Prep	
MB 880-34675/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34675/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34675/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2976-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2976-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

GC Semi VOA (Continued)

Analysis Batch: 34827 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-2	BH01A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 34666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Soluble	Solid	DI Leach	
890-2962-2	BH01A	Soluble	Solid	DI Leach	
MB 880-34666/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34666/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34666/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19314-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19314-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 34958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2962-1	BH01	Soluble	Solid	300.0	34666
890-2962-2	BH01A	Soluble	Solid	300.0	34666
MB 880-34666/1-A	Method Blank	Soluble	Solid	300.0	34666
LCS 880-34666/2-A	Lab Control Sample	Soluble	Solid	300.0	34666
LCSD 880-34666/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34666
880-19314-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	34666
880-19314-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	34666

Lab Chronicle

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Client Sample ID: BH01

Lab Sample ID: 890-2962-1

Date Collected: 09/14/22 08:35

Matrix: Solid

Date Received: 09/14/22 15:00

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	35074	09/21/22 14:46	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35228	09/23/22 21:56	MR	EET MID
Total/NA	Analysis	Total BTEX		1			35420	09/26/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			34827	09/19/22 11:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34675	09/16/22 11:48	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34626	09/17/22 07:48	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	34666	09/16/22 10:42	CH	EET MID
Soluble	Analysis	300.0		1			34958	09/21/22 05:35	CH	EET MID

Client Sample ID: BH01A

Lab Sample ID: 890-2962-2

Date Collected: 09/14/22 09:05

Matrix: Solid

Date Received: 09/14/22 15:00

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	35074	09/21/22 14:46	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35228	09/23/22 22:22	MR	EET MID
Total/NA	Analysis	Total BTEX		1			35420	09/26/22 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			34827	09/19/22 11:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34675	09/16/22 11:48	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34628	09/17/22 03:30	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	34666	09/16/22 10:42	CH	EET MID
Soluble	Analysis	300.0		1			34958	09/21/22 05:40	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Laboratory: Eurofins Midland

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

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-2962-1
SDG: 03D2024083

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2962-1	BH01	Solid	09/14/22 08:35	09/14/22 15:00	0.5'
890-2962-2	BH01A	Solid	09/14/22 09:05	09/14/22 15:00	2'

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

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



Environment Testing
Xenco

Work Order No: _____

www.xenco.com Page _____ of _____

Work Order Comments

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Reporting: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: ☐ EDD ☐ ADAPT ☐ Other: _____

Project Manager: Joe Gable

Company Name: Enslin

Address: _____

City, State ZIP: _____

Phone: 903-386-8073

Email: jgable@enslin.com

Bill to: (if different) Joe Gable

Company Name: Enslin

Address: _____

City, State ZIP: _____

Phone: 903-386-8073

Email: jgable@enslin.com

Project Name: <u>Project 75</u>		Turn Around		Pres. Code		ANALYSIS REQUEST		Preservative Codes	
Project Number:	Project Location:	Temp Blank:	Temp Blank:	Wet Ice:	Wet Ice:	None:	NO	DI Water:	H ₂ O
<u>03D2024083</u>	<u>32.087-103.6421</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>	Cool:	Cool	MeOH:	Me
<u>Kyle Pikes</u>	<u>Kyle Pikes</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>	HCL:	HC	HNO ₃ :	HN
<u>PO #:</u>	<u>PO #:</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>	H ₂ SO ₄ :	H ₂	NaOH:	Na
SAMPLE RECEIPT		Thermometer ID:		Correction Factor:		H ₃ PO ₄ :		HP	
Samples Received Intact:		Thermometer ID:		Correction Factor:		NaHSO ₄ :		NABIS	
Cooler Custody Seals:		Thermometer ID:		Correction Factor:		Na ₂ S ₂ O ₃ :		NaSO ₃	
Sample Custody Seals:		Thermometer ID:		Correction Factor:		Zn Acetate:		NaOH: Zn	
Total Containers:		Thermometer ID:		Correction Factor:		NaOH+Ascorbic Acid:		SAPC	
Sample Identification		Date Sampled		Time Sampled		Grab/Comp		# of Cont	
<u>BH01</u>	<u>5</u>	<u>9/14/20</u>	<u>0855</u>	<u>02.5</u>	<u>02.5</u>				
<u>BH01A</u>	<u>5</u>	<u>9/14/20</u>	<u>0905</u>	<u>02.5</u>	<u>02.5</u>				
Sample Comments		Date Sampled		Time Sampled		Grab/Comp		# of Cont	
<u>Exp. Cons. Enslin</u>		<u>9/14/20</u>		<u>0855</u>		<u>02.5</u>		<u>02.5</u>	

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>[Signature]</u>	<u>[Signature]</u>	<u>9/14/20 1500</u>			

Revised Date: 08/25/2020 Rev. 2002

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2962-1

SDG Number: 03D2024083

Login Number: 2962

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.	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	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2962-1

SDG Number: 03D2024083

Login Number: 2962

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 09/16/22 11:00 AM

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



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3095-1

Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Harrier 35

For:

Ensolum
2351 W. Northwest Hwy
Suite 1203
Dallas, Texas 75220

Attn: Joe Gable

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

Authorized for release by:

9/30/2022 9:13:00 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Harrier 35

Laboratory Job ID: 890-3095-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Job ID: 890-3095-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-3095-1**

Receipt

The samples were received on 9/28/2022 8:29 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3095-A-1-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Client Sample ID: SS01

Lab Sample ID: 890-3095-1

Date Collected: 09/27/22 14:35

Matrix: Solid

Date Received: 09/28/22 08:29

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F2 F1	0.00201	mg/Kg		09/28/22 16:20	09/30/22 05:47	1
Toluene	<0.00201	U F2 F1	0.00201	mg/Kg		09/28/22 16:20	09/30/22 05:47	1
Ethylbenzene	<0.00201	U F2 F1	0.00201	mg/Kg		09/28/22 16:20	09/30/22 05:47	1
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.00402	mg/Kg		09/28/22 16:20	09/30/22 05:47	1
o-Xylene	<0.00201	U F2 F1	0.00201	mg/Kg		09/28/22 16:20	09/30/22 05:47	1
Xylenes, Total	<0.00402	U F2 F1	0.00402	mg/Kg		09/28/22 16:20	09/30/22 05:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	09/28/22 16:20	09/30/22 05:47	1
1,4-Difluorobenzene (Surr)	95		70 - 130	09/28/22 16:20	09/30/22 05:47	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/30/22 09:32	1

Method: 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			09/30/22 08:56	1

Method: 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		09/29/22 08:25	09/29/22 12:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 08:25	09/29/22 12:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:25	09/29/22 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	09/29/22 08:25	09/29/22 12:34	1
o-Terphenyl	86		70 - 130	09/29/22 08:25	09/29/22 12:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.5		5.02	mg/Kg			09/29/22 15:10	1

Client Sample ID: SS02

Lab Sample ID: 890-3095-2

Date Collected: 09/27/22 14:40

Matrix: Solid

Date Received: 09/28/22 08:29

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/28/22 16:20	09/30/22 06:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/28/22 16:20	09/30/22 06:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	09/28/22 16:20	09/30/22 06:08	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Client Sample ID: SS02

Lab Sample ID: 890-3095-2

Date Collected: 09/27/22 14:40

Matrix: Solid

Date Received: 09/28/22 08:29

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	09/28/22 16:20	09/30/22 06:08	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/30/22 09:32	1

Method: 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			09/30/22 08:56	1

Method: 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		09/29/22 08:25	09/29/22 12:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/29/22 08:25	09/29/22 12:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/29/22 08:25	09/29/22 12:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			09/29/22 08:25	09/29/22 12:55	1
o-Terphenyl	88		70 - 130			09/29/22 08:25	09/29/22 12:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.8		4.99	mg/Kg			09/29/22 15:15	1

Client Sample ID: SS03

Lab Sample ID: 890-3095-3

Date Collected: 09/27/22 14:45

Matrix: Solid

Date Received: 09/28/22 08:29

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:28	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:28	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/28/22 16:20	09/30/22 06:28	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/28/22 16:20	09/30/22 06:28	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/28/22 16:20	09/30/22 06:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	09/28/22 16:20	09/30/22 06:28	1
1,4-Difluorobenzene (Surr)	103		70 - 130	09/28/22 16:20	09/30/22 06:28	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/30/22 09:32	1

Method: 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			09/30/22 08:56	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Client Sample ID: SS03

Lab Sample ID: 890-3095-3

Date Collected: 09/27/22 14:45

Matrix: Solid

Date Received: 09/28/22 08:29

Sample Depth: 0.5

Method: 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		09/29/22 08:25	09/29/22 13:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 08:25	09/29/22 13:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:25	09/29/22 13:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			09/29/22 08:25	09/29/22 13:17	1
o-Terphenyl	88		70 - 130			09/29/22 08:25	09/29/22 13:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.3		4.98	mg/Kg			09/29/22 15:20	1

Client Sample ID: SS04

Lab Sample ID: 890-3095-4

Date Collected: 09/27/22 14:50

Matrix: Solid

Date Received: 09/28/22 08:29

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/28/22 16:20	09/30/22 06:48	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/28/22 16:20	09/30/22 06:48	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/28/22 16:20	09/30/22 06:48	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/28/22 16:20	09/30/22 06:48	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/28/22 16:20	09/30/22 06:48	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/28/22 16:20	09/30/22 06:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			09/28/22 16:20	09/30/22 06:48	1
1,4-Difluorobenzene (Surr)	112		70 - 130			09/28/22 16:20	09/30/22 06:48	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/30/22 09:32	1

Method: 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			09/30/22 08:56	1

Method: 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		09/29/22 08:25	09/29/22 13:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 08:25	09/29/22 13:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:25	09/29/22 13:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			09/29/22 08:25	09/29/22 13:38	1
o-Terphenyl	83		70 - 130			09/29/22 08:25	09/29/22 13:38	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Client Sample ID: SS04
Date Collected: 09/27/22 14:50
Date Received: 09/28/22 08:29
Sample Depth: 0.5

Lab Sample ID: 890-3095-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	168		5.00	mg/Kg			09/29/22 15:25	1	

Surrogate Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3095-1	SS01	121	95
890-3095-1 MS	SS01	43 S1-	118
890-3095-1 MSD	SS01	106	96
890-3095-2	SS02	100	104
890-3095-3	SS03	105	103
890-3095-4	SS04	102	112
LCS 880-35626/1-A	Lab Control Sample	103	99
LCSD 880-35626/2-A	Lab Control Sample Dup	102	101
MB 880-35607/5-A	Method Blank	104	112
MB 880-35626/5-A	Method Blank	103	111
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)
880-19787-A-1-F MS	Matrix Spike	92	92
880-19787-A-1-G MSD	Matrix Spike Duplicate	96	91
890-3095-1	SS01	87	86
890-3095-2	SS02	89	88
890-3095-3	SS03	87	88
890-3095-4	SS04	87	83
LCS 880-35651/2-A	Lab Control Sample	102	105
LCSD 880-35651/3-A	Lab Control Sample Dup	102	104
MB 880-35651/1-A	Method Blank	116	117
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-35607/5-A

Matrix: Solid

Analysis Batch: 35713

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35607

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/29/22 11:00	09/29/22 17:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/29/22 11:00	09/29/22 17:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/29/22 11:00	09/29/22 17:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/29/22 11:00	09/29/22 17:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/29/22 11:00	09/29/22 17:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/29/22 11:00	09/29/22 17:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	09/29/22 11:00	09/29/22 17:44	1
1,4-Difluorobenzene (Surr)	112		70 - 130	09/29/22 11:00	09/29/22 17:44	1

Lab Sample ID: MB 880-35626/5-A

Matrix: Solid

Analysis Batch: 35713

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35626

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/28/22 16:20	09/30/22 05:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/28/22 16:20	09/30/22 05:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/28/22 16:20	09/30/22 05:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/28/22 16:20	09/30/22 05:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/28/22 16:20	09/30/22 05:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/28/22 16:20	09/30/22 05:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	09/28/22 16:20	09/30/22 05:19	1
1,4-Difluorobenzene (Surr)	111		70 - 130	09/28/22 16:20	09/30/22 05:19	1

Lab Sample ID: LCS 880-35626/1-A

Matrix: Solid

Analysis Batch: 35713

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09872		mg/Kg		99	70 - 130
Toluene	0.100	0.1126		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1131		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.2308		mg/Kg		115	70 - 130
o-Xylene	0.100	0.1116		mg/Kg		112	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-35626/2-A

Matrix: Solid

Analysis Batch: 35713

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35626

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1016		mg/Kg		102	70 - 130	3	35

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-35626/2-A

Matrix: Solid

Analysis Batch: 35713

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35626

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1086		mg/Kg		109	70 - 130	4	35
Ethylbenzene	0.100	0.1098		mg/Kg		110	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2236		mg/Kg		112	70 - 130	3	35
o-Xylene	0.100	0.1087		mg/Kg		109	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-3095-1 MS

Matrix: Solid

Analysis Batch: 35713

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 35626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F2 F1	0.100	0.02533	F1	mg/Kg		25	70 - 130
Toluene	<0.00201	U F2 F1	0.100	0.02394	F1	mg/Kg		24	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.100	0.02792	F1	mg/Kg		28	70 - 130
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.200	0.06128	F1	mg/Kg		31	70 - 130
o-Xylene	<0.00201	U F2 F1	0.100	0.03184	F1	mg/Kg		32	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	43	S1-	70 - 130
1,4-Difluorobenzene (Surr)	118		70 - 130

Lab Sample ID: 890-3095-1 MSD

Matrix: Solid

Analysis Batch: 35713

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 35626

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F2 F1	0.0990	0.05317	F2 F1	mg/Kg		54	70 - 130	71	35
Toluene	<0.00201	U F2 F1	0.0990	0.06123	F2 F1	mg/Kg		62	70 - 130	88	35
Ethylbenzene	<0.00201	U F2 F1	0.0990	0.06654	F2 F1	mg/Kg		67	70 - 130	82	35
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.198	0.1336	F2 F1	mg/Kg		67	70 - 130	74	35
o-Xylene	<0.00201	U F2 F1	0.0990	0.06951	F2	mg/Kg		70	70 - 130	74	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-35651/1-A

Matrix: Solid

Analysis Batch: 35639

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35651

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		09/29/22 08:25	09/29/22 09:45	1

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-35651/1-A

Matrix: Solid

Analysis Batch: 35639

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35651

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		09/29/22 08:25	09/29/22 09:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 08:25	09/29/22 09:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130			09/29/22 08:25	09/29/22 09:45	1
o-Terphenyl	117		70 - 130			09/29/22 08:25	09/29/22 09:45	1

Lab Sample ID: LCS 880-35651/2-A

Matrix: Solid

Analysis Batch: 35639

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	877.7		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1064		mg/Kg		106	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	102		70 - 130				
o-Terphenyl	105		70 - 130				

Lab Sample ID: LCSD 880-35651/3-A

Matrix: Solid

Analysis Batch: 35639

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35651

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7		mg/Kg		89	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1065		mg/Kg		106	70 - 130	0	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	102		70 - 130						
o-Terphenyl	104		70 - 130						

Lab Sample ID: 880-19787-A-1-F MS

Matrix: Solid

Analysis Batch: 35639

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35651

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	998	862.5		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1041		mg/Kg		103	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	92		70 - 130						
o-Terphenyl	92		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

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

Lab Sample ID: 880-19787-A-1-G MSD

Matrix: Solid

Analysis Batch: 35639

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35651

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	999	892.7		mg/Kg		88	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1049		mg/Kg		103	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	91		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35608/1-A

Matrix: Solid

Analysis Batch: 35693

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			09/29/22 13:03	1

Lab Sample ID: LCS 880-35608/2-A

Matrix: Solid

Analysis Batch: 35693

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	242.7		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-35608/3-A

Matrix: Solid

Analysis Batch: 35693

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	243.5		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-3084-A-1-B MS

Matrix: Solid

Analysis Batch: 35693

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	16.8		250	266.4		mg/Kg		100	90 - 110

Lab Sample ID: 890-3084-A-1-C MSD

Matrix: Solid

Analysis Batch: 35693

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	16.8		250	270.5		mg/Kg		101	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

GC VOA

Prep Batch: 35607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-35607/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 35626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Total/NA	Solid	5035	
890-3095-2	SS02	Total/NA	Solid	5035	
890-3095-3	SS03	Total/NA	Solid	5035	
890-3095-4	SS04	Total/NA	Solid	5035	
MB 880-35626/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35626/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35626/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3095-1 MS	SS01	Total/NA	Solid	5035	
890-3095-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 35713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Total/NA	Solid	8021B	35626
890-3095-2	SS02	Total/NA	Solid	8021B	35626
890-3095-3	SS03	Total/NA	Solid	8021B	35626
890-3095-4	SS04	Total/NA	Solid	8021B	35626
MB 880-35607/5-A	Method Blank	Total/NA	Solid	8021B	35607
MB 880-35626/5-A	Method Blank	Total/NA	Solid	8021B	35626
LCS 880-35626/1-A	Lab Control Sample	Total/NA	Solid	8021B	35626
LCSD 880-35626/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35626
890-3095-1 MS	SS01	Total/NA	Solid	8021B	35626
890-3095-1 MSD	SS01	Total/NA	Solid	8021B	35626

Analysis Batch: 35776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Total/NA	Solid	Total BTEX	
890-3095-2	SS02	Total/NA	Solid	Total BTEX	
890-3095-3	SS03	Total/NA	Solid	Total BTEX	
890-3095-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Total/NA	Solid	8015B NM	35651
890-3095-2	SS02	Total/NA	Solid	8015B NM	35651
890-3095-3	SS03	Total/NA	Solid	8015B NM	35651
890-3095-4	SS04	Total/NA	Solid	8015B NM	35651
MB 880-35651/1-A	Method Blank	Total/NA	Solid	8015B NM	35651
LCS 880-35651/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35651
LCSD 880-35651/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35651
880-19787-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	35651
880-19787-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35651

Prep Batch: 35651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 35651 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-2	SS02	Total/NA	Solid	8015NM Prep	
890-3095-3	SS03	Total/NA	Solid	8015NM Prep	
890-3095-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-35651/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35651/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35651/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19787-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19787-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Total/NA	Solid	8015 NM	
890-3095-2	SS02	Total/NA	Solid	8015 NM	
890-3095-3	SS03	Total/NA	Solid	8015 NM	
890-3095-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Soluble	Solid	DI Leach	
890-3095-2	SS02	Soluble	Solid	DI Leach	
890-3095-3	SS03	Soluble	Solid	DI Leach	
890-3095-4	SS04	Soluble	Solid	DI Leach	
MB 880-35608/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35608/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35608/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3084-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3084-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3095-1	SS01	Soluble	Solid	300.0	35608
890-3095-2	SS02	Soluble	Solid	300.0	35608
890-3095-3	SS03	Soluble	Solid	300.0	35608
890-3095-4	SS04	Soluble	Solid	300.0	35608
MB 880-35608/1-A	Method Blank	Soluble	Solid	300.0	35608
LCS 880-35608/2-A	Lab Control Sample	Soluble	Solid	300.0	35608
LCSD 880-35608/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35608
890-3084-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	35608
890-3084-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35608

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Lab Chronicle

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Client Sample ID: SS01

Lab Sample ID: 890-3095-1

Date Collected: 09/27/22 14:35

Matrix: Solid

Date Received: 09/28/22 08:29

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	35626	09/28/22 16:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35713	09/30/22 05:47	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35776	09/30/22 09:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35757	09/30/22 08:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35651	09/29/22 08:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35639	09/29/22 12:34	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	35608	09/28/22 12:49	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35693	09/29/22 15:10	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-3095-2

Date Collected: 09/27/22 14:40

Matrix: Solid

Date Received: 09/28/22 08:29

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	35626	09/28/22 16:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35713	09/30/22 06:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35776	09/30/22 09:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35757	09/30/22 08:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35651	09/29/22 08:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35639	09/29/22 12:55	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35608	09/28/22 12:49	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35693	09/29/22 15:15	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-3095-3

Date Collected: 09/27/22 14:45

Matrix: Solid

Date Received: 09/28/22 08:29

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	35626	09/28/22 16:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35713	09/30/22 06:28	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35776	09/30/22 09:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35757	09/30/22 08:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35651	09/29/22 08:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35639	09/29/22 13:17	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	35608	09/28/22 12:49	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35693	09/29/22 15:20	CH	EET MID

Client Sample ID: SS04

Lab Sample ID: 890-3095-4

Date Collected: 09/27/22 14:50

Matrix: Solid

Date Received: 09/28/22 08:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	35626	09/28/22 16:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35713	09/30/22 06:48	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35776	09/30/22 09:32	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Client Sample ID: SS04
Date Collected: 09/27/22 14:50
Date Received: 09/28/22 08:29

Lab Sample ID: 890-3095-4
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			35757	09/30/22 08:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35651	09/29/22 08:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35639	09/29/22 13:38	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	35608	09/28/22 12:49	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35693	09/29/22 15:25	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Harrier 35

Job ID: 890-3095-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3095-1	SS01	Solid	09/27/22 14:35	09/28/22 08:29	0.5
890-3095-2	SS02	Solid	09/27/22 14:40	09/28/22 08:29	0.5
890-3095-3	SS03	Solid	09/27/22 14:45	09/28/22 08:29	0.5
890-3095-4	SS04	Solid	09/27/22 14:50	09/28/22 08:29	0.5

1

2

3

4

5

6

7

8

9

10

11

12

13

14



Environment Testing
Xenco

Houston, TX (261) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199


Chain of Custody

Work Order No:

Page _____ of _____
www.xenco.com

Project Manager:	Joe Gable	Bill to: (if different)	Joe Gable
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy.	Address:	3122 National Parks Hwy.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	903-386-8073	Email:	jgable@ensolum.com and kienlings@ensolum.com





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

Project Name:		Harrier 35		Turn Around		Press. Code		ANALYSIS REQUEST										Preservative Codes					
Project Number:		03D2024083		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush														None: NO DI Water: H ₂ O					
Project Location:		Lea County, NM		Due Date:		USH 24HR TA												Cool: Cool MeOH: Me					
Sampler's Name:		Liz Chell		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC HNO ₃ : HN					
PO #:		N/A																H ₂ SO ₄ : H ₂ NaOH: Na					
SAMPLE RECEIPT		Temp Blank:		<input checked="" type="radio"/> Yes <input type="radio"/> No		Wet Ice:		<input checked="" type="radio"/> Yes <input type="radio"/> No												H ₃ PO ₄ : HP			
Samples Received Intact:		<input checked="" type="radio"/> Yes <input type="radio"/> No		Thermometer ID:		TW-003														NaHSO ₄ : NABIS			
Cooler Custody Seals:		<input checked="" type="radio"/> Yes <input type="radio"/> No		N/A		Correction Factor:		-0.03												Na ₂ S ₂ O ₃ : NaSO ₃			
Sample Custody Seals:		<input checked="" type="radio"/> Yes <input type="radio"/> No		N/A		Temperature Reading:		1.4												Zn Acetate+NaOH: Zn			
Total Containers:				Corrected Temperature:		1.4														NaOH+Ascorbic Acid: sAPC			
RIDES (EPA: 300.0)																							
015)																							
8021																							
																							
890-3095 Chain of Custody																							

[illegible]

Total	200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metal(s) to be analyzed																											
8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
TCLP / SPLP 6010: 8RCRA			Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	Hg: 1631 / 245, 1 / 7470 / 7471											

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9.28.22			
		8:31			
		4			
		6			

Student Date: 09/28/2022 BSW: 31020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3095-1

SDG Number: Lea County NM

Login Number: 3095

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.	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	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3095-1

SDG Number: Lea County NM

Login Number: 3095

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 09/29/22 11:12 AM

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



APPENDIX E

NMOCD Notifications

Joe Gable

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Sent: Monday, August 29, 2022 10:37 AM
To: Kalei Jennings
Cc: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] Containment Inspection- Harrier 35 (Incident Number NAPP2222438377)

[**EXTERNAL EMAIL**]

Kalei

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

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Monday, August 29, 2022 8:09 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: Fw: [EXTERNAL] Containment Inspection- Harrier 35 (Incident Number NAPP2222438377)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Monday, August 29, 2022 7:03 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Subject: [EXTERNAL] Containment Inspection- Harrier 35 (Incident Number NAPP2222438377)

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


To Whom It May Concern,

Below is a 48-hour email notification for liner inspection at ConocoPhillips (COP) Harrier 35 (Incident Number NAPP2222438377) / Spill Date 07/12/2022. This is a 48-hour notification that Ensolum is scheduled to inspect this lined containment on behalf of COP on Friday, September 2, 2022, at 8:30 MST. Please call with any questions or concerns.

GPS: 32.08875, -103.6421

Thank you,



Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC
in f 



APPENDIX F

Final C-141

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAPP2222438377
District RP	
Facility ID	
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.Beauvais@conocophillips.com	Incident # (assigned by OCD)
Contact mailing address 600 West Illinois Avenue, Midland TX 79701	

Location of Release Source

Latitude 32.08875 Longitude -103.6421
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Harrier 35 Federal Com #001H	Site Type Production Facility
Date Release Discovered July 12, 2022	API# (if applicable) 30-025-40572

Unit Letter	Section	Township	Range	County
G	35	25S	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)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 9.5 bbls	Volume Recovered (bbls) 9 bbls
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by an oil tank overflowing. The release occurred within the lined earthen berm. A vacuum truck was dispatched to remove freestanding fluids. An evaluation will be conducted at the Site to determine if we may commence remediation immediately or delineate any possible impact from the release.

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

- ☒ 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: Charles Beauvais Title: Senior Environmental Engineer

Signature: *Charles R. Beauvais II* Date: 08/12/2022

email: Charles.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: _____ Date: _____

L48 Spill Volume Estimate Form

Received by OCD: 10/10/2022 9:42:21 AM

Page 65 of 69

Facility Name & Number:	Harrier 35
Asset Area:	Delaware East
Release Discovery Date & Time:	7/12/22 6:30am
Release Type:	
Provide any known details about the event:	well kicked and flooded heater treater and sent 5ft of water to oil tank

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated <u>Pool</u> Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	45.0	8.0	2.00	3	360.000	0.056	3.560	0.003	3.570			
Rectangle B	30.0	8.0	2.00	3	240.000	0.056	2.373	0.003	2.380			
Rectangle C	45.0	8.0	2.00	3	360.000	0.056	3.560	0.003	3.570			
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Total Volume Release:									9.520			

Released to Imaging: 10/25/2022 3:37:43 PM

Released to Imaging: 10/25/2022 3:37:43 PM

Incident ID	NAPP2222438377
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Oil Conservation Division

Incident ID	NAPP2222438377
District RP	
Facility ID	
Application ID	

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais Date: 10/10/2022

email: Charles.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 10/10/2022

Incident ID	NAPP2222438377
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 10/10/2022

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 10/10/2022

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

Closure Approved by: Jennifer Nobui Date: 10/25/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

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 149788

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 149788
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Going forward, OCD requires photos of the repaired liner in the closure report.	10/25/2022