



December 2, 2022

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan
Harrier 35 Federal Com 001H
Incident Number NAPP2225531487
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Work Plan (Work Plan)* to document assessment and soil sampling activities completed to date and propose actions to address residual impacted soil identified at the Harrier 35 Federal Com 001H (Site), following a produced water release. The following *Work Plan* proposes lateral and vertical delineation of the release and excavation of impacted soil.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit M, Section 25, Township 25 South, Range 32 East, in Lea County, New Mexico (32.0947° N, 103.63701° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On September 4, 2022, corrosion of a valve created a pinhole leak, resulting in a release of approximately 6.952 barrels (bbls) of produced water onto the surrounding pasture and lease road. Released fluids were unable to be recovered. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on September 4, 2022, and subsequently submitted a *Release Notification Form C-141* (Form C-141) on September 12, 2022. The release was assigned Incident Number NAPP2225531487.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized for applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on 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 1.9 miles southeast of the Site. The groundwater well has a reported depth to groundwater of 232 feet bgs and a total depth of 320 feet bgs. Ground surface elevation at the groundwater well location is 3,403 feet above mean sea level (amsl), which is approximately 6 feet

higher in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent palustrine wetland, located approximately 1,340 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 not within a 100-year floodplain or overlying a subsurface mine. The Site is greater than 1,000 feet to a freshwater well or spring. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

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

SITE ASSESMENT ACTIVITIES

On October 4, 2022, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four preliminary assessment soil samples (SS01 through SS04) were collected within the release extent at a depth of 0.5 feet bgs, to assess surficial soil within the immediate release extent. Additionally, four soil samples (SS05 through SS08) were collected around the release extent at a depth of 0.5 feet bgs, to assess the lateral extent of the release. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The visible release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. A photographic log is included in Appendix B.

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

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS04 indicated the chloride and/or TPH concentration exceeded the Site Closure Criteria and/or reclamation requirement. Laboratory analytical results for preliminary soil samples SS05 through SS08 all COC concentrations

were compliant with the Site Closure Criteria and reclamation requirements and successfully defined the lateral extent of the release. Table 1 summarizes the soil analytical results. Appendix C includes the laboratory analytical reports and chain of custody documentation.

Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples SS01 through SS04, additional delineation activities appear to be warranted to define the vertical extent of impacted and/or waste-containing soil following the September 4, 2022 release.

PROPOSED REMEDIAL ACTIONS

The results from the preliminary soil sampling indicates impacted and/or waste-containing soil containing chloride and/or TPH at concentrations that exceed the Closure Criteria and/or reclamation requirement within the vicinity of surficial soil samples SS01 through SS04. As such, COG requests approval to complete the following remediation activities:

- Complete vertical and lateral delineation of impacted and/or waste-containing soil until analytical results indicate soil beneath the release is compliant with the Site Closure Criteria and reclamation requirement. Proposed delineation points are depicted on Figure 3; however, they are representative locations and may adjust based on the situation of active subsurface utilities or above-ground pipelines/equipment that may interfere with advancement.
- Soil samples will be field screened for VOCs and chloride. Soil samples exhibiting the highest field screening concentration and deepest depth from each sample location will be submitted for laboratory analysis of BTEX, TPH, and chloride.
- Following successful vertical delineation through laboratory analytical results, COG will proceed with providing NMOCD an addendum *Work Plan* detailing delineation results and proposing additional remedial actions, if applicable, based on results of delineation activities.

COG will complete the delineation activities within 90 days of the date of approval of this *Work Plan* by the NMOCD. A Work Plan Addendum detailing remedial action will be submitted within 30 days of receipt of laboratory analytical results. COG believes this *Work Plan* is protective of human health, the environment, and groundwater and respectfully request approval of this *Work Plan* for Incident Number NAPP2225531487. The Reclamation Plan C-141 is included in Appendix D.

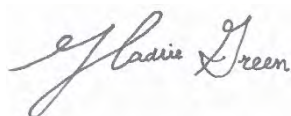
COG Operating, LLC
Remediation Work Plan
Harrier 35 Federal Com 001H

December 2, 2022

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

Sincerely,
Ensolum, LLC



Hadlie Green
Staff Geologist



Kalei Jennings
Senior Scientist

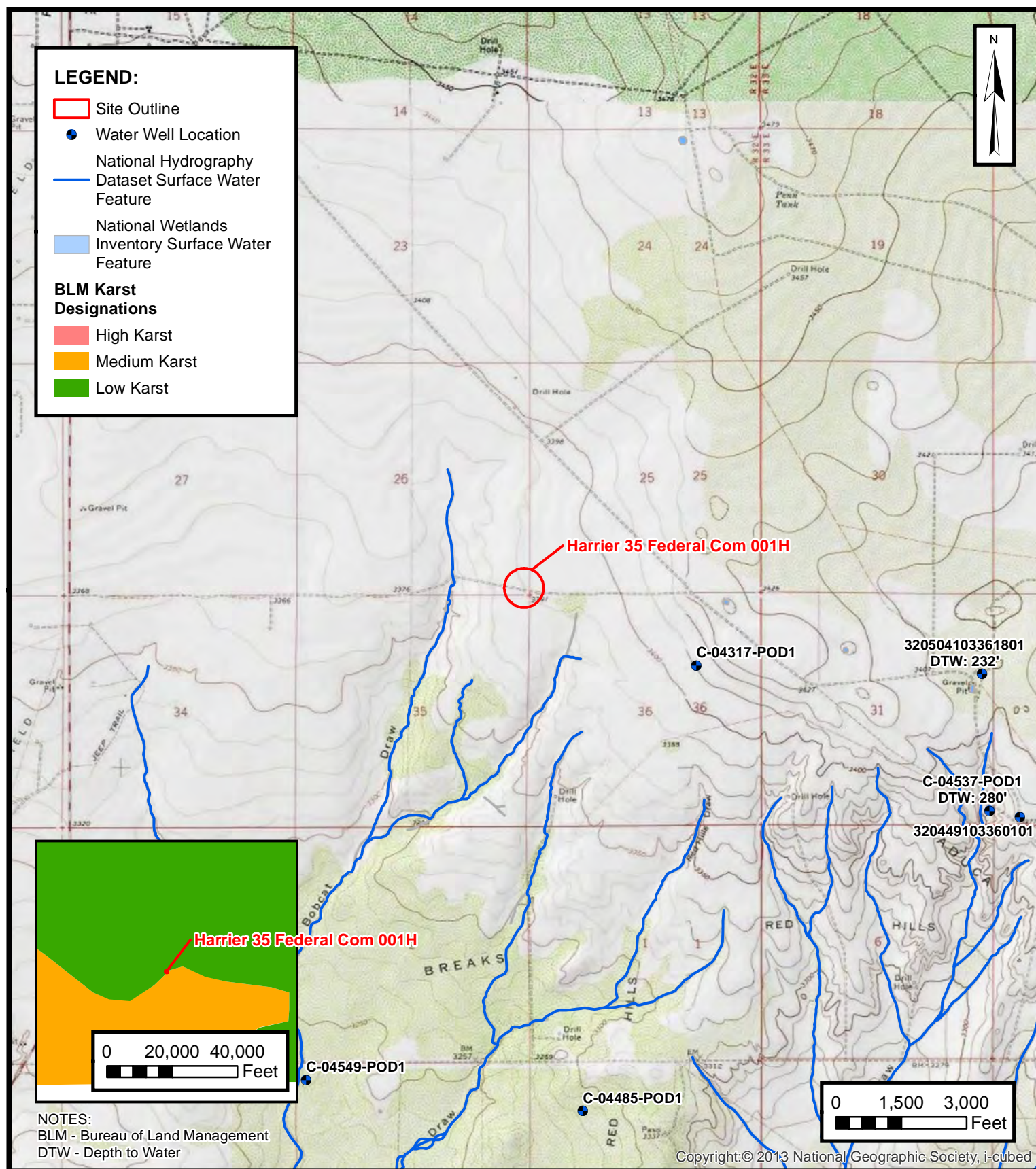
cc: Charles Beauvais, COG Operating, LLC
Bureau of Land Management

Appendices:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Proposed Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	Final C-141



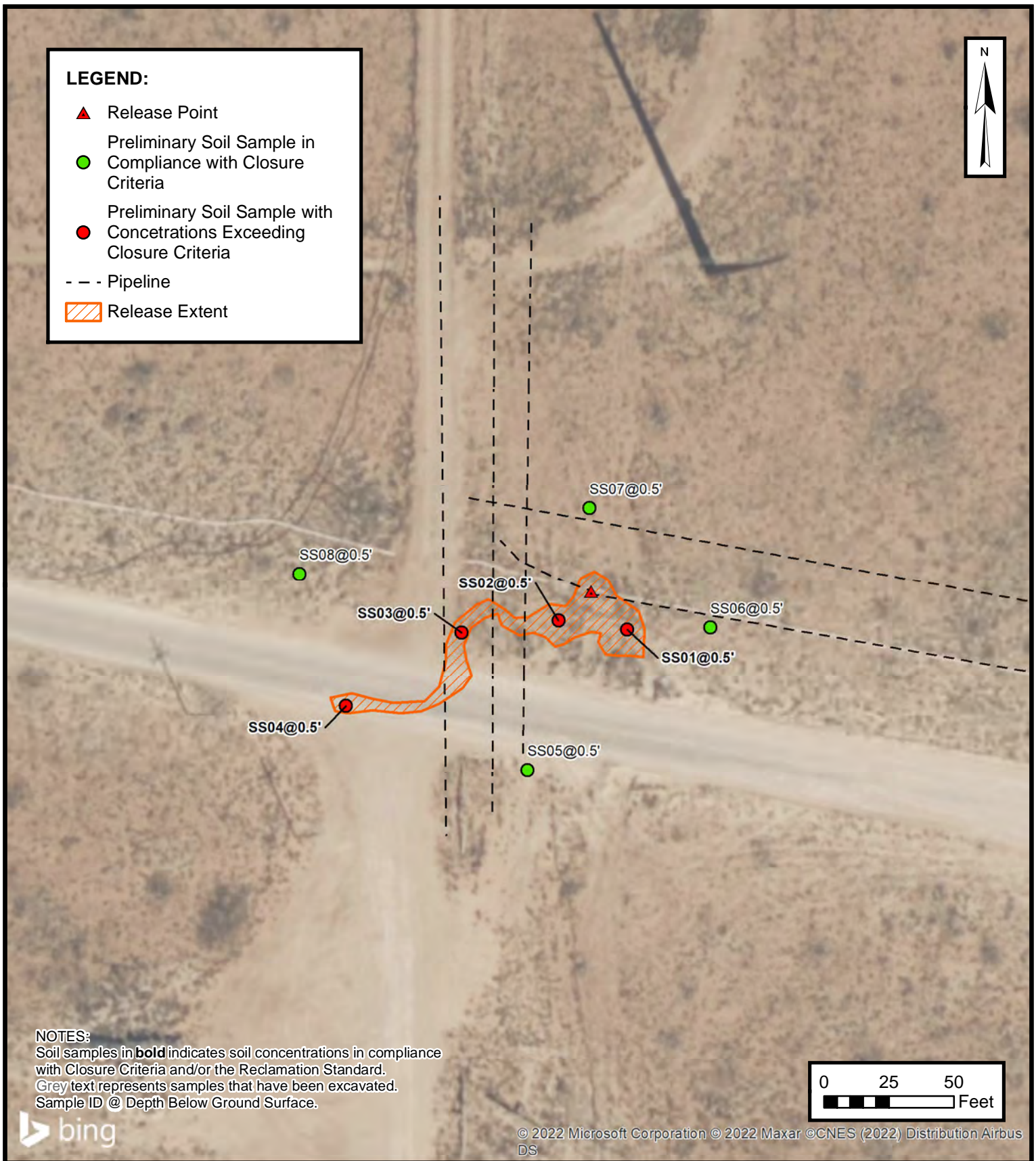
FIGURES



SITE RECEPTOR MAP

COG OPERATING, LLC
HARRIER 35 FEDERAL COM 001H
NAPP2225531487
Unit M Sec 25 T25S R32E
Lea County, New Mexico

FIGURE
1

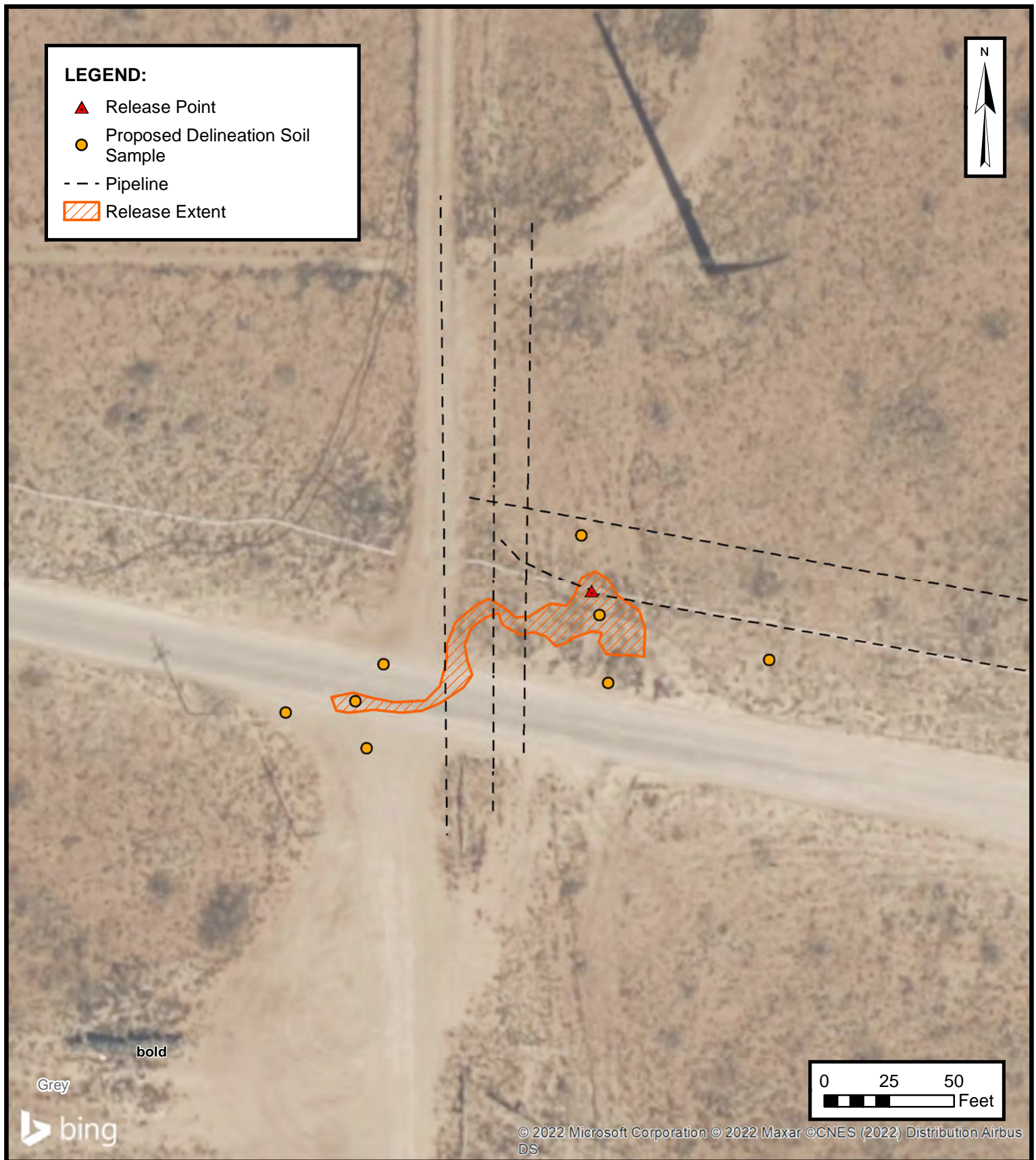


PRELIMINARY SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
 HARRIER 35 FEDERAL COM 001H
 NAPP2225531487
 Unit M Sec 25 T25S R32E
 Lea County, New Mexico

FIGURE

2



PROPOSED DELINEATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
HARRIER 35 FEDERAL COM 001H
NAPP2225531487
Unit M Sec 25 T25S R32E
Lea County, New Mexico

FIGURE
3



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	1,000	2,500	20,000
Preliminary Soil Samples										
SS01	10/04/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	28,000*
SS02	10/04/2022	0.5	<0.00198	<0.00396	<49.9	210	199	210	409	10,300*
SS03	10/04/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	15,700*
SS04	10/04/2022	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	8,500*
SS05	10/04/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	30.9*
SS06	10/04/2022	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	20.3*
SS07	10/04/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	20.2*
SS08	10/04/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	39.7*

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.

* indicates soil in the top 4 feet of pasture to be reclaimed

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX A

Referenced Well Records

Lea County, New Mexico
Latitude 32°05'21.6", Longitude 103°36'12.7" NAD83
Land-surface elevation 3,403.00 feet above NGVD29
The depth of the well is 320 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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


Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1954-07-26			D	62610	3145.45	NGVD29	1	Z			A
1954-07-26			D	62611	3147.08	NAVD88	1	Z			A
1954-07-26			D	72019	257.55		1	Z			A
1970-12-08			D	62610	3162.86	NGVD29	P	Z			A
1970-12-08			D	62611	3164.49	NAVD88	P	Z			A
1970-12-08			D	72019	240.14		P	Z			A
2013-01-16	19:45 UTC		m	62610	3170.04	NGVD29	1	S	USGS	S	A
2013-01-16	19:45 UTC		m	62611	3171.67	NAVD88	1	S	USGS	S	A
2013-01-16	19:45 UTC		m	72019	232.96		1	S	USGS	S	A



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
20E6C	C 04537 POD1	4	4	4	31	25S	33E	631847	3550243 

Driller License:	1706	Driller Company:	ELITE DRILLERS CORPORATION	
Driller Name:	WALLACE, BRYCE J.LEE.NER			
Drill Start Date:	06/11/2021	Drill Finish Date:	06/12/2021	Plug Date:
Log File Date:	06/21/2021	PCW Rcv Date:		Source: Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield: 5 GPM
Casing Size:	4.00	Depth Well:	500 feet	Depth Water: 280 feet

Water Bearing Stratifications:	Top	Bottom	Description
	220	340	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	300	500

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/23/22 9:04 AM

POINT OF DIVERSION SUMMARY



APPENDIX B

Photographic Log

**Photographic Log**

COG Operating, LLC

Harrier 35 Federal Com 001H

Incident Number NAPP2225531487



Photograph: 1 Date: 10/4/2022
 Description: Soil staining in release footprint
 View: Southwest



Photograph: 2 Date: 10/4/2022
 Description: Soil staining in release footprint
 View: Southeast



Photograph: 3 Date: 10/4/2022
 Description: Soil staining in release footprint
 View: Southeast



Photograph: 4 Date: 10/4/2022
 Description: Soil staining in release footprint
 View: Southwest



APPENDIX C

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: 890-3147-1

Laboratory Sample Delivery Group: 03D2024093

Client Project/Site: Harrier 35 Fed Com 001

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

Authorized for release by:

10/12/2022 12:37:53 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Laboratory Job ID: 890-3147-1
SDG: 03D2024093

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Definitions/Glossary

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Job ID: 890-3147-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3147-1****Receipt**

The samples were received on 10/5/2022 9:10 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 1.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3147-1), SS02 (890-3147-2), SS03 (890-3147-3), SS04 (890-3147-4), SS05 (890-3147-5), SS06 (890-3147-6), SS07 (890-3147-7) and SS08 (890-3147-8).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS06 (890-3147-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS08 (890-3147-8). 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

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36242 and analytical batch 880-36598 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS01

Lab Sample ID: 890-3147-1

Date Collected: 10/04/22 08:40

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:44	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/10/22 13:48	10/11/22 21:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:44	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/10/22 13:48	10/11/22 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	10/10/22 13:48	10/11/22 21:44	1
1,4-Difluorobenzene (Surr)	88		70 - 130	10/10/22 13:48	10/11/22 21:44	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/07/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 15:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 15:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	10/06/22 08:40	10/06/22 15:11	1
o-Terphenyl	78		70 - 130	10/06/22 08:40	10/06/22 15:11	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28000		248	mg/Kg			10/11/22 08:59	50

Client Sample ID: SS02

Lab Sample ID: 890-3147-2

Date Collected: 10/04/22 08:45

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/10/22 13:48	10/11/22 22:05	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/10/22 13:48	10/11/22 22:05	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/10/22 13:48	10/11/22 22:05	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		10/10/22 13:48	10/11/22 22:05	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/10/22 13:48	10/11/22 22:05	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/10/22 13:48	10/11/22 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	10/10/22 13:48	10/11/22 22:05	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS02

Lab Sample ID: 890-3147-2

Date Collected: 10/04/22 08:45

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	10/10/22 13:48	10/11/22 22:05	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	409		49.9	mg/Kg			10/07/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/06/22 08:40	10/06/22 15:32	1
Diesel Range Organics (Over C10-C28)	210		49.9	mg/Kg		10/06/22 08:40	10/06/22 15:32	1
Oil Range Organics (Over C28-C36)	199		49.9	mg/Kg		10/06/22 08:40	10/06/22 15:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			10/06/22 08:40	10/06/22 15:32	1
o-Terphenyl	75		70 - 130			10/06/22 08:40	10/06/22 15:32	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10300		100	mg/Kg			10/11/22 09:06	20

Client Sample ID: SS03

Lab Sample ID: 890-3147-3

Date Collected: 10/04/22 08:50

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 22:25	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 22:25	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 22:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 13:48	10/11/22 22:25	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 22:25	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 13:48	10/11/22 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	10/10/22 13:48	10/11/22 22:25	1
1,4-Difluorobenzene (Surr)	99		70 - 130	10/10/22 13:48	10/11/22 22:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/07/22 09:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS03

Lab Sample ID: 890-3147-3

Date Collected: 10/04/22 08:50

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 15:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 15:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 15:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			10/06/22 08:40	10/06/22 15:53	1
o-Terphenyl	78		70 - 130			10/06/22 08:40	10/06/22 15:53	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15700		101	mg/Kg			10/11/22 09:14	20

Client Sample ID: SS04

Lab Sample ID: 890-3147-4

Date Collected: 10/04/22 08:55

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 22:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 22:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 22:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/10/22 13:48	10/11/22 22:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 22:46	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/10/22 13:48	10/11/22 22:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			10/10/22 13:48	10/11/22 22:46	1
1,4-Difluorobenzene (Surr)	100		70 - 130			10/10/22 13:48	10/11/22 22:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/07/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/06/22 08:40	10/06/22 16:14	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/06/22 08:40	10/06/22 16:14	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/06/22 08:40	10/06/22 16:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			10/06/22 08:40	10/06/22 16:14	1
o-Terphenyl	76		70 - 130			10/06/22 08:40	10/06/22 16:14	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS04

Lab Sample ID: 890-3147-4

Date Collected: 10/04/22 08:55

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8500	F1	100	mg/Kg			10/11/22 09:22	20

Client Sample ID: SS05

Lab Sample ID: 890-3147-5

Date Collected: 10/04/22 09:00

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 23:07	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 23:07	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 23:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 13:48	10/11/22 23:07	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:48	10/11/22 23:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 13:48	10/11/22 23:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			10/10/22 13:48	10/11/22 23:07	1
1,4-Difluorobenzene (Surr)	98		70 - 130			10/10/22 13:48	10/11/22 23:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/07/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/06/22 08:40	10/06/22 16:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/06/22 08:40	10/06/22 16:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/06/22 08:40	10/06/22 16:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			10/06/22 08:40	10/06/22 16:34	1
o-Terphenyl	77		70 - 130			10/06/22 08:40	10/06/22 16:34	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.9		4.96	mg/Kg			10/11/22 09:45	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS06

Lab Sample ID: 890-3147-6

Date Collected: 10/04/22 09:05

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/11/22 23:28	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/11/22 23:28	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/11/22 23:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/10/22 13:48	10/11/22 23:28	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/10/22 13:48	10/11/22 23:28	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/10/22 13:48	10/11/22 23:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	10/10/22 13:48	10/11/22 23:28	1
1,4-Difluorobenzene (Surr)	65	S1-	70 - 130	10/10/22 13:48	10/11/22 23:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/07/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/06/22 08:40	10/06/22 16:55	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/06/22 08:40	10/06/22 16:55	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/06/22 08:40	10/06/22 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	10/06/22 08:40	10/06/22 16:55	1
o-Terphenyl	78		70 - 130	10/06/22 08:40	10/06/22 16:55	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.3		4.97	mg/Kg			10/11/22 09:52	1

Client Sample ID: SS07

Lab Sample ID: 890-3147-7

Date Collected: 10/04/22 09:10

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 23:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 23:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 23:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/10/22 13:48	10/11/22 23:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 23:48	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/10/22 13:48	10/11/22 23:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	10/10/22 13:48	10/11/22 23:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS07

Lab Sample ID: 890-3147-7

Date Collected: 10/04/22 09:10

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	10/10/22 13:48	10/11/22 23:48	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/07/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/06/22 08:40	10/06/22 17:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/06/22 08:40	10/06/22 17:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/06/22 08:40	10/06/22 17:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			10/06/22 08:40	10/06/22 17:16	1
o-Terphenyl	82		70 - 130			10/06/22 08:40	10/06/22 17:16	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.2		4.98	mg/Kg			10/11/22 10:16	1

Client Sample ID: SS08

Lab Sample ID: 890-3147-8

Date Collected: 10/04/22 09:15

Matrix: Solid

Date Received: 10/05/22 09:10

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/12/22 00:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/12/22 00:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/12/22 00:09	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/10/22 13:48	10/12/22 00:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/12/22 00:09	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/10/22 13:48	10/12/22 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	10/10/22 13:48	10/12/22 00:09	1
1,4-Difluorobenzene (Surr)	83		70 - 130	10/10/22 13:48	10/12/22 00:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/12/22 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/07/22 09:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS08
Date Collected: 10/04/22 09:15
Date Received: 10/05/22 09:10
Sample Depth: 0.5'

Lab Sample ID: 890-3147-8
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 17:36	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 17:36	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 17:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	88		70 - 130			10/06/22 08:40	10/06/22 17:36	1	
o-Terphenyl	80		70 - 130			10/06/22 08:40	10/06/22 17:36	1	

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	39.7		4.99	mg/Kg			10/11/22 10:23	1	

Surrogate Summary

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

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)
890-3147-1	SS01	105	88
890-3147-1 MS	SS01	94	97
890-3147-1 MSD	SS01	94	93
890-3147-2	SS02	103	97
890-3147-3	SS03	114	99
890-3147-4	SS04	114	100
890-3147-5	SS05	115	98
890-3147-6	SS06	104	65 S1-
890-3147-7	SS07	126	89
890-3147-8	SS08	133 S1+	83
LCS 880-36590/1-A	Lab Control Sample	89	92
LCSD 880-36590/2-A	Lab Control Sample Dup	89	92
MB 880-36590/5-A	Method Blank	98	82
MB 880-36628/5-A	Method Blank	106	84
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)
880-20033-A-1-C MS	Matrix Spike	94	85
880-20033-A-1-D MSD	Matrix Spike Duplicate	82	71
890-3147-1	SS01	84	78
890-3147-2	SS02	84	75
890-3147-3	SS03	87	78
890-3147-4	SS04	86	76
890-3147-5	SS05	82	77
890-3147-6	SS06	86	78
890-3147-7	SS07	86	82
890-3147-8	SS08	88	80
LCS 880-36226/2-A	Lab Control Sample	108	110
LCSD 880-36226/3-A	Lab Control Sample Dup	116	120
MB 880-36226/1-A	Method Blank	90	93
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36590/5-A

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36590

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:48	10/11/22 21:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 13:48	10/11/22 21:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	10/10/22 13:48	10/11/22 21:22	1
1,4-Difluorobenzene (Surr)	82		70 - 130	10/10/22 13:48	10/11/22 21:22	1

Lab Sample ID: LCS 880-36590/1-A

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36590

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09596		mg/Kg		96	70 - 130
Toluene	0.100	0.09632		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.08819		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1845		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09352		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-36590/2-A

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36590

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	9	35
Toluene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
Ethylbenzene	0.100	0.09629		mg/Kg		96	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1995		mg/Kg		100	70 - 130	8	35
o-Xylene	0.100	0.09993		mg/Kg		100	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-3147-1 MS

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 36590

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.1006		mg/Kg		101	70 - 130
Toluene	<0.00200	U	0.0998	0.09590		mg/Kg		95	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

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

Lab Sample ID: 890-3147-1 MS

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 36590

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0998	0.08125		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1643		mg/Kg		82	70 - 130
o-Xylene	<0.00200	U	0.0998	0.08297		mg/Kg		83	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-3147-1 MSD

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 36590

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1022		mg/Kg		103	70 - 130	2	35
Toluene	<0.00200	U	0.0996	0.1003		mg/Kg		99	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.0996	0.08603		mg/Kg		86	70 - 130	6	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1774		mg/Kg		89	70 - 130	8	35
o-Xylene	<0.00200	U	0.0996	0.08805		mg/Kg		88	70 - 130	6	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: MB 880-36628/5-A

Matrix: Solid

Analysis Batch: 36625

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36628

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 10:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 10:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 10:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/11/22 08:09	10/11/22 10:38	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 08:09	10/11/22 10:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/11/22 08:09	10/11/22 10:38	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	10/11/22 08:09	10/11/22 10:38	1
1,4-Difluorobenzene (Surr)	84		70 - 130	10/11/22 08:09	10/11/22 10:38	1

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

Lab Sample ID: MB 880-36226/1-A

Matrix: Solid

Analysis Batch: 36216

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36226

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 09:43	1

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

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

Lab Sample ID: MB 880-36226/1-A

Matrix: Solid

Analysis Batch: 36216

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36226

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 09:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/22 08:40	10/06/22 09:43	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			10/06/22 08:40	10/06/22 09:43	1
o-Terphenyl	93		70 - 130			10/06/22 08:40	10/06/22 09:43	1

Lab Sample ID: LCS 880-36226/2-A

Matrix: Solid

Analysis Batch: 36216

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1077		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	1000	910.0		mg/Kg		91	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	108		70 - 130				
o-Terphenyl	110		70 - 130				

Lab Sample ID: LCSD 880-36226/3-A

Matrix: Solid

Analysis Batch: 36216

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36226

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1190		mg/Kg		119	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	1000	1038		mg/Kg		104	70 - 130	13	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	116		70 - 130						
o-Terphenyl	120		70 - 130						

Lab Sample ID: 880-20033-A-1-C MS

Matrix: Solid

Analysis Batch: 36216

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36226

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	955.9		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	101		998	922.3		mg/Kg		82	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	94		70 - 130						
o-Terphenyl	85		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

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

Lab Sample ID: 880-20033-A-1-D MSD

Matrix: Solid

Analysis Batch: 36216

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36226

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	892.0		mg/Kg		86	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	101		999	803.4		mg/Kg		70	70 - 130	14	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	82		70 - 130								
o-Terphenyl	71		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36242/1-A

Matrix: Solid

Analysis Batch: 36598

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/11/22 07:11	1

Lab Sample ID: LCS 880-36242/2-A

Matrix: Solid

Analysis Batch: 36598

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Lab Sample ID: LCSD 880-36242/3-A

Matrix: Solid

Analysis Batch: 36598

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	260.8		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3147-4 MS

Matrix: Solid

Analysis Batch: 36598

Client Sample ID: SS04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	8500	F1	5000	18090	F1	mg/Kg		192	90 - 110

Lab Sample ID: 890-3147-4 MSD

Matrix: Solid

Analysis Batch: 36598

Client Sample ID: SS04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8500	F1	5000	17000	F1	mg/Kg		170	90 - 110	6	20

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QC Association Summary

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

GC VOA

Prep Batch: 36590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Total/NA	Solid	5035	
890-3147-2	SS02	Total/NA	Solid	5035	
890-3147-3	SS03	Total/NA	Solid	5035	
890-3147-4	SS04	Total/NA	Solid	5035	
890-3147-5	SS05	Total/NA	Solid	5035	
890-3147-6	SS06	Total/NA	Solid	5035	
890-3147-7	SS07	Total/NA	Solid	5035	
890-3147-8	SS08	Total/NA	Solid	5035	
MB 880-36590/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36590/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36590/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3147-1 MS	SS01	Total/NA	Solid	5035	
890-3147-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 36625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Total/NA	Solid	8021B	36590
890-3147-2	SS02	Total/NA	Solid	8021B	36590
890-3147-3	SS03	Total/NA	Solid	8021B	36590
890-3147-4	SS04	Total/NA	Solid	8021B	36590
890-3147-5	SS05	Total/NA	Solid	8021B	36590
890-3147-6	SS06	Total/NA	Solid	8021B	36590
890-3147-7	SS07	Total/NA	Solid	8021B	36590
890-3147-8	SS08	Total/NA	Solid	8021B	36590
MB 880-36590/5-A	Method Blank	Total/NA	Solid	8021B	36590
MB 880-36628/5-A	Method Blank	Total/NA	Solid	8021B	36628
LCS 880-36590/1-A	Lab Control Sample	Total/NA	Solid	8021B	36590
LCSD 880-36590/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36590
890-3147-1 MS	SS01	Total/NA	Solid	8021B	36590
890-3147-1 MSD	SS01	Total/NA	Solid	8021B	36590

Prep Batch: 36628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36628/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 36757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Total/NA	Solid	Total BTEX	
890-3147-2	SS02	Total/NA	Solid	Total BTEX	
890-3147-3	SS03	Total/NA	Solid	Total BTEX	
890-3147-4	SS04	Total/NA	Solid	Total BTEX	
890-3147-5	SS05	Total/NA	Solid	Total BTEX	
890-3147-6	SS06	Total/NA	Solid	Total BTEX	
890-3147-7	SS07	Total/NA	Solid	Total BTEX	
890-3147-8	SS08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Total/NA	Solid	8015B NM	36226

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QC Association Summary

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

GC Semi VOA (Continued)

Analysis Batch: 36216 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-2	SS02	Total/NA	Solid	8015B NM	36226
890-3147-3	SS03	Total/NA	Solid	8015B NM	36226
890-3147-4	SS04	Total/NA	Solid	8015B NM	36226
890-3147-5	SS05	Total/NA	Solid	8015B NM	36226
890-3147-6	SS06	Total/NA	Solid	8015B NM	36226
890-3147-7	SS07	Total/NA	Solid	8015B NM	36226
890-3147-8	SS08	Total/NA	Solid	8015B NM	36226
MB 880-36226/1-A	Method Blank	Total/NA	Solid	8015B NM	36226
LCS 880-36226/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36226
LCSD 880-36226/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36226
880-20033-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36226
880-20033-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36226

Prep Batch: 36226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Total/NA	Solid	8015NM Prep	
890-3147-2	SS02	Total/NA	Solid	8015NM Prep	
890-3147-3	SS03	Total/NA	Solid	8015NM Prep	
890-3147-4	SS04	Total/NA	Solid	8015NM Prep	
890-3147-5	SS05	Total/NA	Solid	8015NM Prep	
890-3147-6	SS06	Total/NA	Solid	8015NM Prep	
890-3147-7	SS07	Total/NA	Solid	8015NM Prep	
890-3147-8	SS08	Total/NA	Solid	8015NM Prep	
MB 880-36226/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36226/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36226/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-20033-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-20033-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Total/NA	Solid	8015 NM	
890-3147-2	SS02	Total/NA	Solid	8015 NM	
890-3147-3	SS03	Total/NA	Solid	8015 NM	
890-3147-4	SS04	Total/NA	Solid	8015 NM	
890-3147-5	SS05	Total/NA	Solid	8015 NM	
890-3147-6	SS06	Total/NA	Solid	8015 NM	
890-3147-7	SS07	Total/NA	Solid	8015 NM	
890-3147-8	SS08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Soluble	Solid	DI Leach	
890-3147-2	SS02	Soluble	Solid	DI Leach	
890-3147-3	SS03	Soluble	Solid	DI Leach	
890-3147-4	SS04	Soluble	Solid	DI Leach	
890-3147-5	SS05	Soluble	Solid	DI Leach	
890-3147-6	SS06	Soluble	Solid	DI Leach	
890-3147-7	SS07	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

HPLC/IC (Continued)

Leach Batch: 36242 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-8	SS08	Soluble	Solid	DI Leach	
MB 880-36242/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3147-4 MS	SS04	Soluble	Solid	DI Leach	
890-3147-4 MSD	SS04	Soluble	Solid	DI Leach	

Analysis Batch: 36598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3147-1	SS01	Soluble	Solid	300.0	36242
890-3147-2	SS02	Soluble	Solid	300.0	36242
890-3147-3	SS03	Soluble	Solid	300.0	36242
890-3147-4	SS04	Soluble	Solid	300.0	36242
890-3147-5	SS05	Soluble	Solid	300.0	36242
890-3147-6	SS06	Soluble	Solid	300.0	36242
890-3147-7	SS07	Soluble	Solid	300.0	36242
890-3147-8	SS08	Soluble	Solid	300.0	36242
MB 880-36242/1-A	Method Blank	Soluble	Solid	300.0	36242
LCS 880-36242/2-A	Lab Control Sample	Soluble	Solid	300.0	36242
LCSD 880-36242/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36242
890-3147-4 MS	SS04	Soluble	Solid	300.0	36242
890-3147-4 MSD	SS04	Soluble	Solid	300.0	36242

Lab Chronicle

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS01
Date Collected: 10/04/22 08:40
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 21:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 15:11	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		50			36598	10/11/22 08:59	CH	EET MID

Client Sample ID: SS02
Date Collected: 10/04/22 08:45
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 22:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 15:32	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		20			36598	10/11/22 09:06	CH	EET MID

Client Sample ID: SS03
Date Collected: 10/04/22 08:50
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 22:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 15:53	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		20			36598	10/11/22 09:14	CH	EET MID

Client Sample ID: SS04
Date Collected: 10/04/22 08:55
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 22:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS04
Date Collected: 10/04/22 08:55
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-4
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			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 16:14	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		20			36598	10/11/22 09:22	CH	EET MID

Client Sample ID: SS05
Date Collected: 10/04/22 09:00
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 23:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 16:34	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		1			36598	10/11/22 09:45	CH	EET MID

Client Sample ID: SS06
Date Collected: 10/04/22 09:05
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 23:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 16:55	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		1			36598	10/11/22 09:52	CH	EET MID

Client Sample ID: SS07
Date Collected: 10/04/22 09:10
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/11/22 23:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 17:16	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Harrier 35 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Client Sample ID: SS07
Date Collected: 10/04/22 09:10
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		1			36598	10/11/22 10:16	CH	EET MID

Client Sample ID: SS08
Date Collected: 10/04/22 09:15
Date Received: 10/05/22 09:10

Lab Sample ID: 890-3147-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36590	10/10/22 13:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36625	10/12/22 00:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36757	10/12/22 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			36332	10/07/22 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36226	10/06/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36216	10/06/22 17:36	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36242	10/06/22 09:53	CH	EET MID
Soluble	Analysis	300.0		1			36598	10/11/22 10:23	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 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

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 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

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 Fed Com 001

Job ID: 890-3147-1
SDG: 03D2024093

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3147-1	SS01	Solid	10/04/22 08:40	10/05/22 09:10	0.5'
890-3147-2	SS02	Solid	10/04/22 08:45	10/05/22 09:10	0.5'
890-3147-3	SS03	Solid	10/04/22 08:50	10/05/22 09:10	0.5'
890-3147-4	SS04	Solid	10/04/22 08:55	10/05/22 09:10	0.5'
890-3147-5	SS05	Solid	10/04/22 09:00	10/05/22 09:10	0.5'
890-3147-6	SS06	Solid	10/04/22 09:05	10/05/22 09:10	0.5'
890-3147-7	SS07	Solid	10/04/22 09:10	10/05/22 09:10	0.5'
890-3147-8	SS08	Solid	10/04/22 09:15	10/05/22 09:10	0.5'



Environment Testing
Xenco

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

Chain of Custody

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum	Company Name:	
Address:	3122 National Parks Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	303-867-2946	Email:	kjennings@ensolum.com

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

[illegible]

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 \$65.00 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
<i>[Signature]</i>	<i>[Signature]</i>	10/6/22 09:40			

50-4246-1-00000000000000000000

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3147-1

SDG Number: 03D2024093

Login Number: 3147

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3147-1

SDG Number: 03D2024093

Login Number: 3147

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 10/06/22 10:20 AM

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



APPENDIX D

Final C-141

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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


State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name _____	Title: _____
Signature: <u></u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>09/12/2022</u>

L48 Spill Volume Estimate Form

Page 48 of 53

Received by OCD: 12/5/2022 7:22:59 AM

Number:	Harrier 35
Asset Area:	Delaware east
Release Discovery Date & Time:	9/4/22 7am
Release Type:	Produced Water
Provide any known details about the event:	

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.)
Rectangle A	20.0	10.0	0.50	3	200.000	0.014	0.494	0.001	0.495
Rectangle B	30.0	10.0	0.50	2	300.000	0.021	1.113	0.001	1.114
Rectangle C	270.0	8.0	0.50	3	2160.000	0.014	5.340	0.001	5.344
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!
					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Released to Imaging: 1/5/2023 2:27:27 PM

Total Volume Release:

6.952

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 142261

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 142261
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	9/12/2022

Incident ID	NAPP2225531487
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2225531487
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: __12/3/2022_____

email: ___Charles.R.Beauvais@conocophillips.com___

Telephone: ___575-988-2043_____

OCD OnlyReceived by: Jocelyn HarimonDate: 12/05/2022

Incident ID	NAPP2225531487
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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 BeauvaisTitle: Senior Environmental EngineerSignature: Charles R. BeauvaisDate: 12/3/2022email: Charles.R.Beauvais@conocophillips.comTelephone: 575-988-2043**OCD Only**Received by: Jocelyn Harimon Date: 12/05/2022☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature: Jennifer NobuiDate: 01/05/2023

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 163605

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 163605
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Work Plan Approved with Conditions. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater. Lateral samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release.	1/5/2023