ENSOLUM

April 6, 2023

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Request
White Falcon 16 State 001H
Incident Number NAPP2301735698
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the White Falcon 16 State 001H (Site). The purpose of the Site assessment and soil sampling activities was to address impacts to soil resulting from a crude oil flare fire at the Site. Based on field observations and field screening activities, excavation activities, and laboratory analytical results from soil sampling events, COG is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2301735698.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit D, Section 16, Township 16 South, Range 35 East, in Lea County, New Mexico (32.1366°, -103.3802°) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On January 8, 2023, a regulator malfunction resulted in fluid being sent to the flare and resulted in a fire on pad. The released volume was estimated to be approximately 0.0074 barrels (bbls) of crude oil. The released crude oil ignited and extinguished itself after reaching the ground. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on January 8, 2023 and submitted a Release Notification Form C-141 (Form C-141) on January 17, 2023. The release was assigned Incident Number NAPP2301735698.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, (19.15.29.12) 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 is United States Geological Survey (USGS) well 320721103221201, located approximately 1.0 mile southeast of the Site. The groundwater well has a reported depth to groundwater of 167 feet bgs and a total depth of 275 feet bgs. Ground surface elevation at the groundwater well location is 3,228 feet

above mean sea level (amsl), which is approximately 31 feet lower in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a drywash, located approximately 6,302 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between January 20, 2023, and February 20, 2023, Ensolum personnel were at the Site to complete assessment and delineation activities based on visible staining in the release area and information provided by the C-141. Soil Samples SS01 through SS04, collected around the release extent, were collected at a depth of 0.2 feet bgs to assess the lateral extent of the release. Soil samples SS05 through SS08, collected within the release extent via hand auger, were collected at depths ranging from 0.2 feet to 1-foot bgs. Soil from the delineation samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Laboratory analytical results for delineation soil samples SS01 through SS04 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for delineation soil samples SS06 through SS08, collected at 0.2 feet bgs and 1-foot bgs within the release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results for SS05, collected within the release at a depth of 0.2 feet bgs, indicated the TPH concentration exceeded the Site Closure Criteria. Based on laboratory analytical results for soil sample SS05, excavation activities were warranted.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between February 20, 2023, and March 27, 2023, Ensolum personnel were at the Site to oversee excavation activities based on visible staining and laboratory analytical results for soil sample SS05. Excavation activities were performed using a backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a depth of 0.5 feet bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of stained soil, 5-point composite soil samples were collected every 200 square feet from the floor of the excavation extents. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Due to the shallow depth of both excavation extents, the sidewalls were incorporated into the floor samples. Composite soil samples FS01 and FS02 were collected from the floor of the excavation at a depth of 0.5 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Laboratory analytical results for the excavation soil sample FS02 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results for the excavation soil sample FS01 indicated the TPH concentration was complaint with the Site Closure Criteria but exceeded the most stringent Table I Closure Criteria. Additional soil was removed from the area associated with soil sample FS01 and another 5-point composite excavation confirmation soil sample (FS01A) was collected at 0.75 feet bgs and followed the same procedure described above.

Laboratory analytical results for the soil sample FS01A indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix C.

The excavation area measured approximately 370 square feet. A total of 11 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

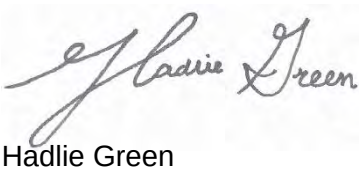
CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the January 8, 2023, crude oil flare fire. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COCs were compliant with the most stringent Table I Closure Criteria. Based on the soil sample analytical results, no further remediation was required.

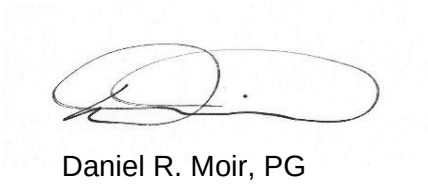
Excavation of stained soil has mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes these remedial actions are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2301735698.

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
Project Manager



Daniel R. Moir, PG
Senior Managing Geologist

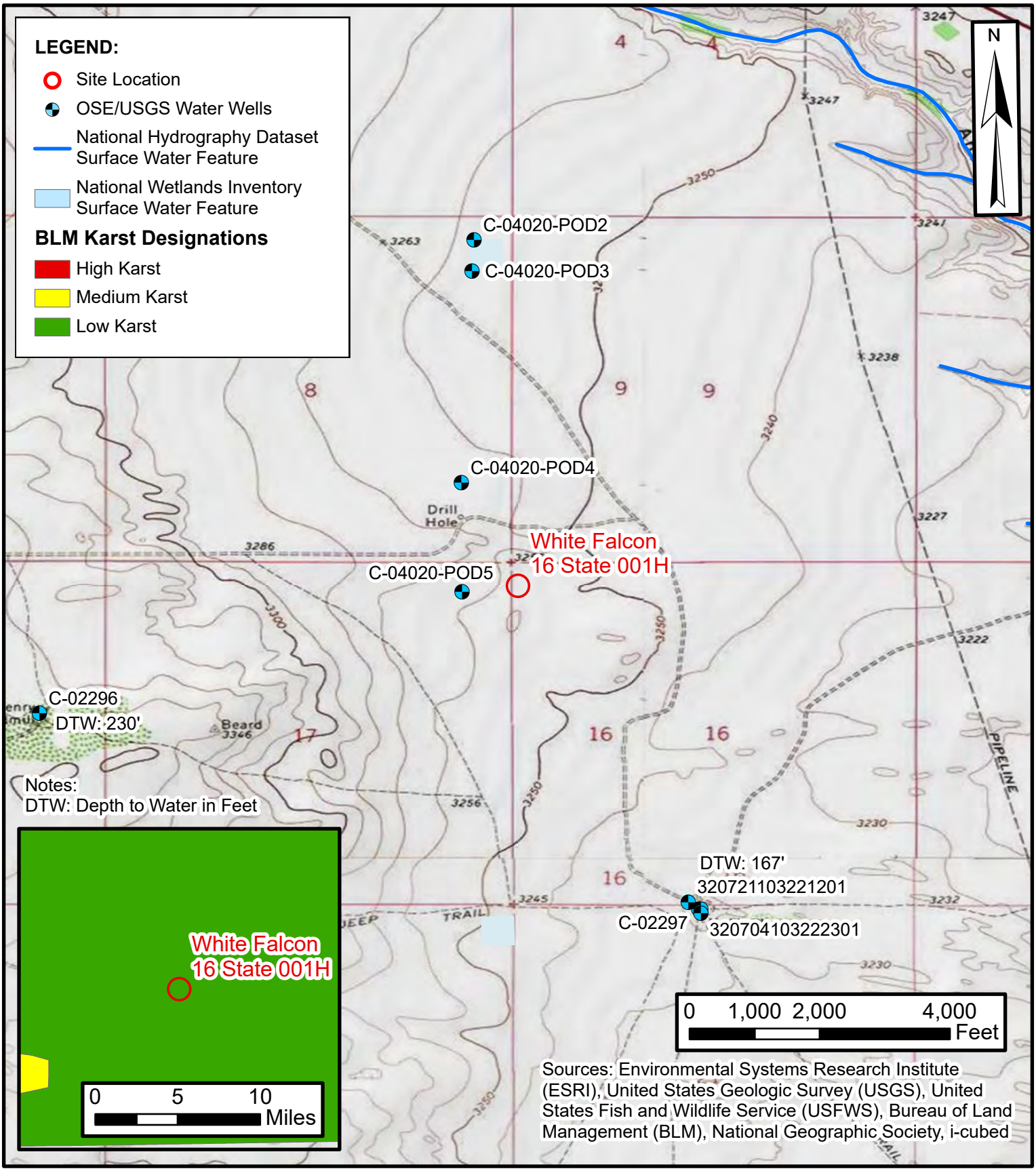
cc: Jacob Laird, COG Operating, LLC
Charles Beauvais, COG Operating, LLC
New Mexico State Land Office

Appendices:

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

ENSOLUM

FIGURES

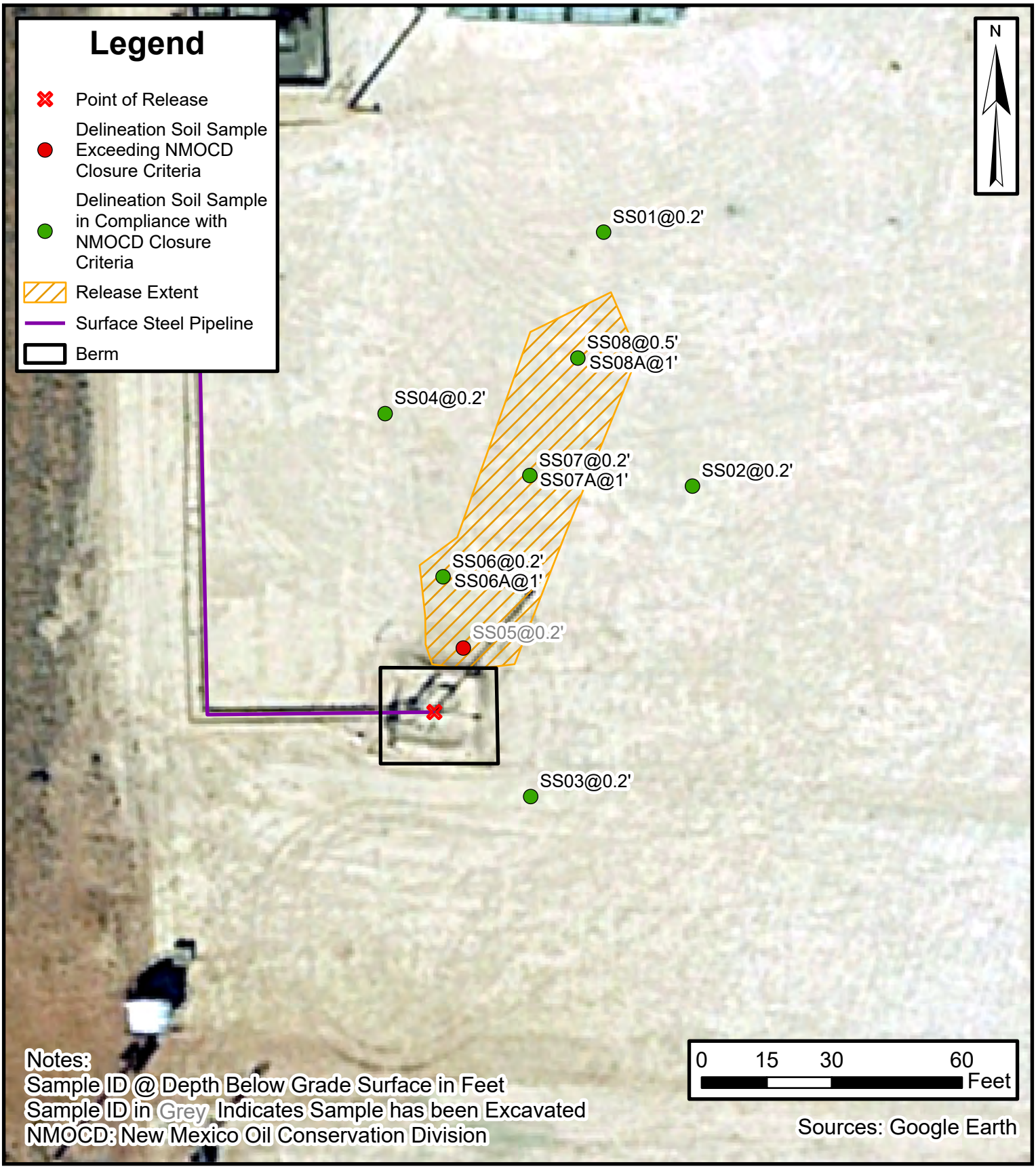


ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

COG Operating, LLC
White Falcon 16 State 001H
Incident Number: NAPP2301735698
Unit D, Sec 16, T25S, R35E
Lea County, New Mexico

FIGURE
1

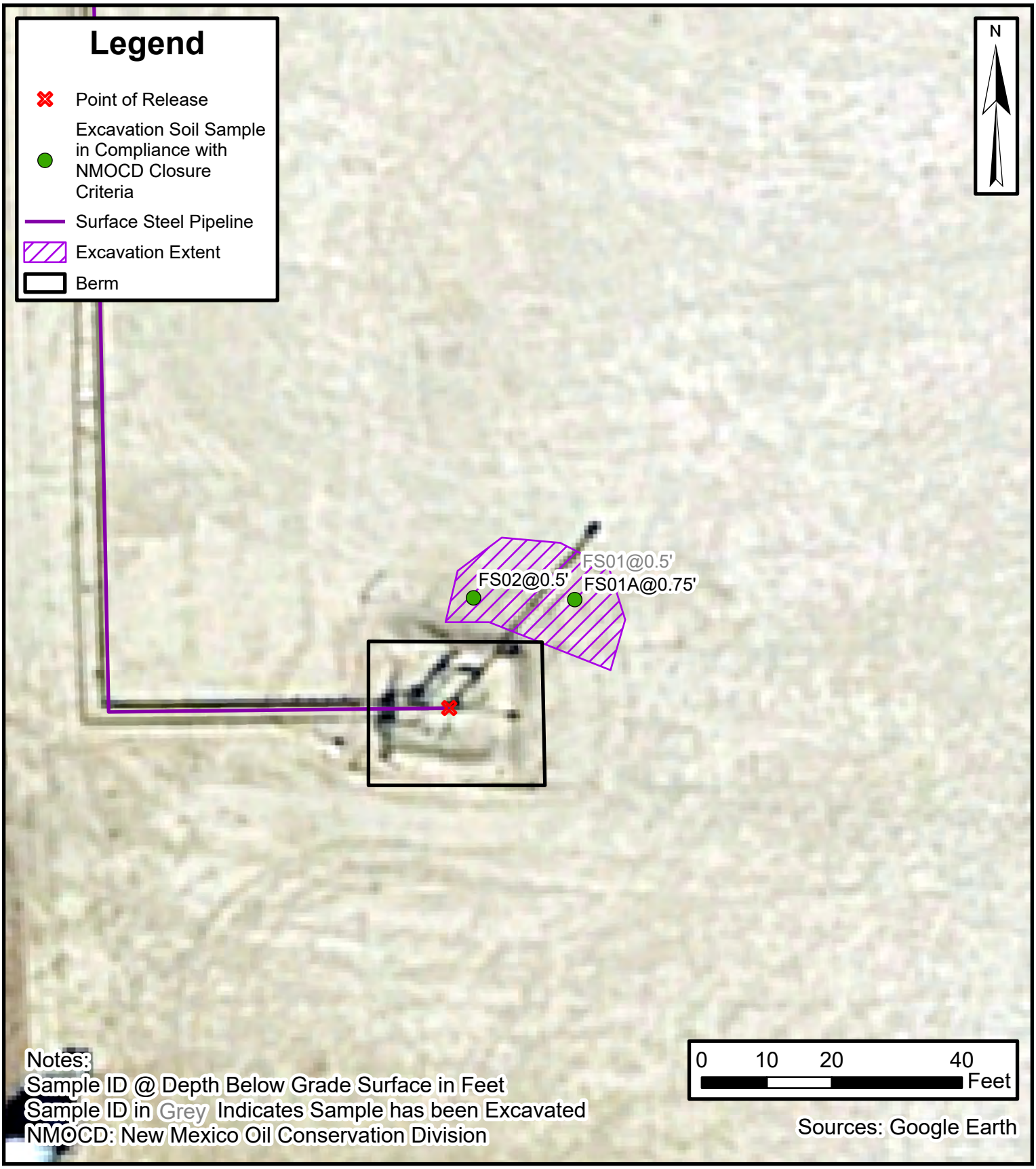


ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

COG Operating, LLC
White Falcon 16 State 001H
Incident Number: NAPP2301735698
Unit D, Sec 16, T25S, R35E
Lea County, New Mexico

FIGURE
2



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Excavation Soil Sample Locations

COG Operating, LLC
White Falcon 16 State 001H
Incident Number: NAPP2301735698
Unit D, Sec 16, T25S, R35E
Lea County, New Mexico

FIGURE
3

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
White Falcon 16 State 001H
COG Operating, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples										
SS01	01/20/2023	0.2	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	153
SS02	01/20/2023	0.2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	103
SS03	01/20/2023	0.2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
SS04	01/20/2023	0.2	<0.00200	0.00463	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98
SS05	01/20/2023	0.2	<0.00199	<0.00398	<49.9	2,970	556	**2,970**	**3,530**	28.7
SS06	02/20/2023	0.2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	37.9
SS06A	02/20/2023	1	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	24.3
SS07	02/20/2023	0.2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	23.8
SS07A	02/20/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	37.5
SS08	02/20/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	26.3
SS08A	02/20/2023	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	21.0
Excavation Soil Samples										
FS01	02/20/2023	0.5	<0.00200	<0.00399	<49.8	156	<49.8	156	156	14.1
FS01A	03/27/2023	0.75	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	133
FS02	02/20/2023	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	193

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMAC: New Mexico Adminstrative Code

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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

Grey text represents samples that have been excavated

ENSOLUM

APPENDIX A

Referenced Well Records

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- See the Water Data for the Nation Blog for the latest news and updates.

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320721103221201

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

USGS 320721103221201 25S.35E.21.122212

Lea County, New Mexico
Latitude 32°07'23", Longitude 103°22'23" NAD27
Land-surface elevation 3,228.00 feet above NGVD29
The depth of the well is 275 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Santa Rosa Sandstone (231SNRS) 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
1981-04-01		D	62610		3055.14	NGVD29	1	Z			A
1981-04-01		D	62611		3056.64	NAVD88	1	Z			A
1981-04-01		D	72019	172.86			1	Z			A
1986-03-18		D	62610		3069.39	NGVD29	1	Z			A
1986-03-18		D	62611		3070.89	NAVD88	1	Z			A
1986-03-18		D	72019	158.61			1	Z			A
1991-06-06		D	62610		3060.90	NGVD29	1	Z			A
1991-06-06		D	62611		3062.40	NAVD88	1	Z			A
1991-06-06		D	72019	167.10			1	Z			A
1996-02-29		D	62610		3061.29	NGVD29	1	S			A
1996-02-29		D	62611		3062.79	NAVD88	1	S			A
1996-02-29		D	72019	166.71			1	S			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2023-01-18 18:28:43 EST
0.28 0.24 nadww01

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
	C 02296	3	4	2	18	25S	35E	650846	3556088

Driller License:	122	**Driller Company:**	UNKNOWN		
Driller Name:	UNKNOWN				
Drill Start Date:		**Drill Finish Date:**	12/31/1949	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	4 GPM
Casing Size:	8.00	**Depth Well:**	300 feet	**Depth Water:**	230 feet

ENSOLUM

APPENDIX B

Photographic Log

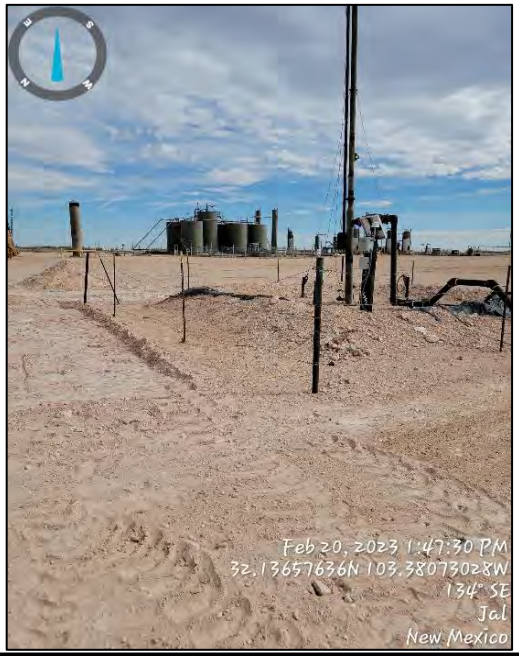
ENSOLUM

Photographic Log
COG Operating, LLC
White Falcon 16 State 001H
Lea County, New Mexico

Photograph: 1 Date: 1/20/2023
Description: Release extent and staining
View: East

Photograph: 2 Date: 1/20/2023
Description: Release extent
View: Northeast

Photograph: 3 Date: 2/20/2023
Description: Excavation activities
View: Southwest



Photograph: 4 Date: 2/20/2023
Description: Excavation Activities
View: Southeast

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/4/2023 9:29:48 AM

JOB DESCRIPTION

White Falcon 16 State 001H
SDG NUMBER 03D2024146

JOB NUMBER

890-3934-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

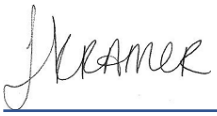
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
2/4/2023 9:29:48 AM

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

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Laboratory Job ID: 890-3934-1
SDG: 03D2024146

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3934-1
Project/Site: White Falcon 16 State 001H SDG: 03D2024146

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

Job ID: 890-3934-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3934-1

Receipt
The sample was received on 1/23/2023 4:24 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS02 (890-3934-1).

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

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-45246 and analytical batch 880-45303 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS02 (890-3934-1). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44790 and analytical batch 880-44922 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: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

Client Sample ID: SS02

Date Collected: 01/20/23 14:35
Date Received: 01/23/23 16:24
Sample Depth: 0.2'

Lab Sample ID: 890-3934-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 01:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/02/23 13:52*	*02/03/23 01:36*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/02/23 13:52*	*02/03/23 01:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/04/23 09:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		02/02/23 10:56	02/04/23 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 10:56	02/04/23 04:15	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 10:56	02/04/23 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*02/02/23 10:56*	*02/04/23 04:15*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*02/02/23 10:56*	*02/04/23 04:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		5.00		mg/Kg			01/27/23 23:30	1

Surrogate Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

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)
890-3925-A-1-D MS	Matrix Spike	102	103
890-3925-A-1-E MSD	Matrix Spike Duplicate	102	98
890-3934-1	SS02	103	103
LCS 880-45269/1-A	Lab Control Sample	101	92
LCSD 880-45269/2-A	Lab Control Sample Dup	95	102
MB 880-45239/5-A	Method Blank	89	92
MB 880-45269/5-A	Method Blank	91	88

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)
890-3914-A-1-D MS	Matrix Spike	87	78
890-3914-A-1-E MSD	Matrix Spike Duplicate	87	78
890-3934-1	SS02	65 S1-	66 S1-
LCS 880-45246/2-A	Lab Control Sample	95	90
LCSD 880-45246/3-A	Lab Control Sample Dup	89	86
MB 880-45246/1-A	Method Blank	109	113

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45239/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*

Lab Sample ID: MB 880-45269/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45269

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*

Lab Sample ID: LCS 880-45269/1-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09657		mg/Kg		97	70 - 130		
Toluene			0.100	0.09290		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.08916		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1874		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09608		mg/Kg		96	70 - 130		

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09768		mg/Kg		98	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09199		mg/Kg		92	70 - 130	1	35
Ethylbenzene			0.100	0.08490		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1762		mg/Kg		88	70 - 130	6	35
o-Xylene			0.100	0.08972		mg/Kg		90	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3925-A-1-D MS
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.1089		mg/Kg		109	70 - 130
Toluene	<0.00201	U	0.100	0.09892		mg/Kg		99	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09440		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1956		mg/Kg		98	70 - 130
o-Xylene	<0.00201	U	0.100	0.09982		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-3925-A-1-E MSD
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1011		mg/Kg		102	70 - 130	7	35
Toluene	<0.00201	U	0.0990	0.09416		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.09146		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1915		mg/Kg		97	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.09783		mg/Kg		99	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-45246/1-A
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45246

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 10:56	02/03/23 20:00	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

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

Lab Sample ID: MB 880-45246/1-A
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45246

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 10:56	02/03/23 20:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 10:56	02/03/23 20:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*02/02/23 10:56*	*02/03/23 20:00*	*1*
o-Terphenyl	*113*		*70 - 130*	*02/02/23 10:56*	*02/03/23 20:00*	*1*

Lab Sample ID: LCS 880-45246/2-A
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45246

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	939.7		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			999	1084		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: LCSD 880-45246/3-A
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45246

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	740.5	*1	mg/Kg		74	70 - 130	24	20
Diesel Range Organics (Over C10-C28)			999	953.5		mg/Kg		95	70 - 130	13	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: 890-3914-A-1-D MS
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45246

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	1000	890.2		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)	58.1		1000	981.4		mg/Kg		92	70 - 130		

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

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

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

Lab Sample ID: 890-3914-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45303 — **Prep Batch: 45246**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	998	893.0		mg/Kg		89	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	58.1		998	984.9		mg/Kg		93	70 - 130	0	20

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44790/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 21:21	1

Lab Sample ID: LCS 880-44790/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	265.2		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-44790/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	265.6		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3922-A-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1380	F1	1240	2819	F1	mg/Kg		116	90 - 110		

Lab Sample ID: 890-3922-A-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1380	F1	1240	2800	F1	mg/Kg		115	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

GC VOA

Analysis Batch: 45230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Total/NA	Solid	8021B	45269
MB 880-45239/5-A	Method Blank	Total/NA	Solid	8021B	45239
MB 880-45269/5-A	Method Blank	Total/NA	Solid	8021B	45269
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	8021B	45269
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45269
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45269
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45269

Prep Batch: 45239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45239/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Total/NA	Solid	5035	
MB 880-45269/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-45246/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45246/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3914-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3914-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Total/NA	Solid	8015B NM	45246
MB 880-45246/1-A	Method Blank	Total/NA	Solid	8015B NM	45246
LCS 880-45246/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45246
LCSD 880-45246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45246
890-3914-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45246
890-3914-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45246

Analysis Batch: 45450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

HPLC/IC

Leach Batch: 44790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Soluble	Solid	DI Leach	
MB 880-44790/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44790/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44790/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3922-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3922-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 44922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3934-1	SS02	Soluble	Solid	300.0	44790
MB 880-44790/1-A	Method Blank	Soluble	Solid	300.0	44790
LCS 880-44790/2-A	Lab Control Sample	Soluble	Solid	300.0	44790
LCSD 880-44790/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44790
890-3922-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	44790
890-3922-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44790

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

Client Sample ID: SS02

Date Collected: 01/20/23 14:35
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3934-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 01:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45315	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45450	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45246	02/02/23 10:56	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/04/23 04:15	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44790	01/26/23 08:29	CH	EET MID
Soluble	Analysis	300.0		1			44922	01/27/23 23:30	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: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3934-1
SDG: 03D2024146

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3934-1	SS02	Solid	01/20/23 14:35	01/23/23 16:24	0.2'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com, jadams@ensolum.com

Work Order Comments

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

Project Name:	White Falcon 16 State 002H	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024146	Due Date:	
Project Location:	32.13666 -103.3802	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Juliana Falconata		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR#4
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS02	S	1/20/23	1435	.2'	C	1		/	/	/	NAPC730735698

890-3934 Chain of Custody

Preservative Codes

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Amanda Stutz	1-23-23 1620	3		
2				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3934-1
SDG Number: 03D2024146

Login Number: 3934
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: 890-3934-1
SDG Number: 03D2024146

Login Number: 3934
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/5/2023 9:32:00 AM

JOB DESCRIPTION

White Falcon 16 State 001H
SDG NUMBER 03D2024146

JOB NUMBER

890-3935-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

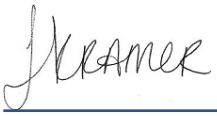
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
2/5/2023 9:32:00 AM

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

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Laboratory Job ID: 890-3935-1
SDG: 03D2024146

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3935-1
Project/Site: White Falcon 16 State 001H SDG: 03D2024146

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

Job ID: 890-3935-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3935-1

Receipt
The sample was received on 1/23/2023 4:24 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS01 (890-3935-1).

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (MB 880-45268/1-A), (890-3928-A-1-E MS) and (890-3928-A-1-F MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44790 and analytical batch 880-44922 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: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

Client Sample ID: SS01

Date Collected: 01/20/23 14:30
Date Received: 01/23/23 16:24
Sample Depth: 0.2'

Lab Sample ID: 890-3935-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/02/23 13:52	02/03/23 04:22	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/02/23 13:52	02/03/23 04:22	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/02/23 13:52	02/03/23 04:22	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/02/23 13:52	02/03/23 04:22	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/02/23 13:52	02/03/23 04:22	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/02/23 13:52	02/03/23 04:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/02/23 13:52*	*02/03/23 04:22*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/02/23 13:52*	*02/03/23 04:22*	*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			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/05/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/02/23 13:41	02/05/23 05:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/02/23 13:41	02/05/23 05:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/23 13:41	02/05/23 05:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/02/23 13:41*	*02/05/23 05:14*	*1*
o-Terphenyl	*98*		*70 - 130*	*02/02/23 13:41*	*02/05/23 05:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**153**		5.00		mg/Kg			01/27/23 23:35	1

Surrogate Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

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)
890-3925-A-1-D MS	Matrix Spike	102	103
890-3925-A-1-E MSD	Matrix Spike Duplicate	102	98
890-3935-1	SS01	111	102
LCS 880-45269/1-A	Lab Control Sample	101	92
LCSD 880-45269/2-A	Lab Control Sample Dup	95	102
MB 880-45239/5-A	Method Blank	89	92
MB 880-45269/5-A	Method Blank	91	88

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)
890-3928-A-1-E MS	Matrix Spike	16 S1-	12 S1-
890-3928-A-1-F MSD	Matrix Spike Duplicate	17 S1-	10 S1-
890-3935-1	SS01	96	98
LCS 880-45268/2-A	Lab Control Sample	90	94
LCSD 880-45268/3-A	Lab Control Sample Dup	89	93
MB 880-45268/1-A	Method Blank	124	138 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45239/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*

Lab Sample ID: MB 880-45269/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45269

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*

Lab Sample ID: LCS 880-45269/1-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09657		mg/Kg		97	70 - 130		
Toluene			0.100	0.09290		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.08916		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1874		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09608		mg/Kg		96	70 - 130		

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09768		mg/Kg		98	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09199		mg/Kg		92	70 - 130	1	35
Ethylbenzene			0.100	0.08490		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1762		mg/Kg		88	70 - 130	6	35
o-Xylene			0.100	0.08972		mg/Kg		90	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3925-A-1-D MS
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.1089		mg/Kg		109	70 - 130
Toluene	<0.00201	U	0.100	0.09892		mg/Kg		99	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09440		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1956		mg/Kg		98	70 - 130
o-Xylene	<0.00201	U	0.100	0.09982		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-3925-A-1-E MSD
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1011		mg/Kg		102	70 - 130	7	35
Toluene	<0.00201	U	0.0990	0.09416		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.09146		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1915		mg/Kg		97	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.09783		mg/Kg		99	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-45268/1-A
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45268

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 13:41	02/04/23 20:13	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

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

Lab Sample ID: MB 880-45268/1-A
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45268

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 13:41	02/04/23 20:13	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 13:41	02/04/23 20:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*02/02/23 13:41*	*02/04/23 20:13*	*1*
o-Terphenyl	*138*	*S1+*	*70 - 130*	*02/02/23 13:41*	*02/04/23 20:13*	*1*

Lab Sample ID: LCS 880-45268/2-A
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45268

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	869.5		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)			999	892.5		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: LCSD 880-45268/3-A
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45268

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	837.4		mg/Kg		84	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			999	880.3		mg/Kg		88	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Lab Sample ID: 890-3928-A-1-E MS
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45268

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1051		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1120		mg/Kg		108	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*16*	*S1-*	*70 - 130*
o-Terphenyl	*12*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

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

Lab Sample ID: 890-3928-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45445 — **Prep Batch: 45268**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	994.5		mg/Kg		97	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1097		mg/Kg		106	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*17*	*S1-*	*70 - 130*
o-Terphenyl	*10*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44790/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 21:21	1

Lab Sample ID: LCS 880-44790/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	265.2		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-44790/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	265.6		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3922-A-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1380	F1	1240	2819	F1	mg/Kg		116	90 - 110		

Lab Sample ID: 890-3922-A-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1380	F1	1240	2800	F1	mg/Kg		115	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

GC VOA

Analysis Batch: 45230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Total/NA	Solid	8021B	45269
MB 880-45239/5-A	Method Blank	Total/NA	Solid	8021B	45239
MB 880-45269/5-A	Method Blank	Total/NA	Solid	8021B	45269
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	8021B	45269
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45269
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45269
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45269

Prep Batch: 45239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45239/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Total/NA	Solid	5035	
MB 880-45269/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Total/NA	Solid	8015NM Prep	
MB 880-45268/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45268/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45268/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3928-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3928-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Total/NA	Solid	8015B NM	45268
MB 880-45268/1-A	Method Blank	Total/NA	Solid	8015B NM	45268
LCS 880-45268/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45268
LCSD 880-45268/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45268
890-3928-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	45268
890-3928-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45268

Analysis Batch: 45494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

HPLC/IC

Leach Batch: 44790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Soluble	Solid	DI Leach	
MB 880-44790/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44790/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44790/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3922-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3922-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 44922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3935-1	SS01	Soluble	Solid	300.0	44790
MB 880-44790/1-A	Method Blank	Soluble	Solid	300.0	44790
LCS 880-44790/2-A	Lab Control Sample	Soluble	Solid	300.0	44790
LCSD 880-44790/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44790
890-3922-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	44790
890-3922-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44790

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

Client Sample ID: SS01
Date Collected: 01/20/23 14:30
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3935-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 04:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45317	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45494	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 05:14	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44790	01/26/23 08:29	CH	EET MID
Soluble	Analysis	300.0		1			44922	01/27/23 23:35	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: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3935-1
SDG: 03D2024146

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3935-1	SS01	Solid	01/20/23 14:30	01/23/23 16:24	0.2'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com, jadams@ensolum.com

Work Order Comments

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

Project Name:	White Falcon 16 State 002H	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024146	Due Date:	
Project Location:	32.13406, -103.3802	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Julianna Faldomatar		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TDm-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.2
Total Containers:		Corrected Temperature:	3.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS01	S	01-2023	1430	.2'	C	1		✓	✓	✓	NAPP2301735698

ANALYSIS REQUEST

Parameters

890-3935 Chain of Custody

Preservative Codes

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			1-23 23 1624	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3935-1
SDG Number: 03D2024146

Login Number: 3935
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: 890-3935-1
SDG Number: 03D2024146

Login Number: 3935
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/5/2023 9:32:31 AM

JOB DESCRIPTION

White Falcon 16 State 001H
SDG NUMBER 03D2024146

JOB NUMBER

890-3936-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

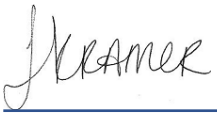
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
2/5/2023 9:32:31 AM

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

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Laboratory Job ID: 890-3936-1
SDG: 03D2024146

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3936-1
Project/Site: White Falcon 16 State 001H SDG: 03D2024146

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

Job ID: 890-3936-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3936-1

Receipt
The sample was received on 1/23/2023 4:24 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS03 (890-3936-1).

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45275 and analytical batch 880-45439 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.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3930-A-1-F MS) and (890-3930-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44791 and analytical batch 880-44924 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: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

Client Sample ID: SS03

Date Collected: 01/20/23 14:40
Date Received: 01/23/23 16:24
Sample Depth: 0.2'

Lab Sample ID: 890-3936-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 04:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 04:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 04:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 04:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 04:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/02/23 13:52*	*02/03/23 04:43*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/02/23 13:52*	*02/03/23 04:43*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/05/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/05/23 00:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/05/23 00:34	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/05/23 00:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*02/02/23 14:55*	*02/05/23 00:34*	*1*
o-Terphenyl	*83*		*70 - 130*	*02/02/23 14:55*	*02/05/23 00:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			01/27/23 18:28	1

Surrogate Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

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)
890-3925-A-1-D MS	Matrix Spike	102	103
890-3925-A-1-E MSD	Matrix Spike Duplicate	102	98
890-3936-1	SS03	118	101
LCS 880-45269/1-A	Lab Control Sample	101	92
LCSD 880-45269/2-A	Lab Control Sample Dup	95	102
MB 880-45239/5-A	Method Blank	89	92
MB 880-45269/5-A	Method Blank	91	88

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)
890-3930-A-1-F MS	Matrix Spike	11 S1-	12 S1-
890-3930-A-1-G MSD	Matrix Spike Duplicate	10 S1-	10 S1-
890-3936-1	SS03	79	83
LCS 880-45275/2-A	Lab Control Sample	74	78
LCSD 880-45275/3-A	Lab Control Sample Dup	82	85
MB 880-45275/1-A	Method Blank	87	95

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45239/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*

Lab Sample ID: MB 880-45269/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45269

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*

Lab Sample ID: LCS 880-45269/1-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09657		mg/Kg		97	70 - 130		
Toluene			0.100	0.09290		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.08916		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1874		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09608		mg/Kg		96	70 - 130		

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09768		mg/Kg		98	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09199		mg/Kg		92	70 - 130	1	35
Ethylbenzene			0.100	0.08490		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1762		mg/Kg		88	70 - 130	6	35
o-Xylene			0.100	0.08972		mg/Kg		90	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3925-A-1-D MS
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.1089		mg/Kg		109	70 - 130
Toluene	<0.00201	U	0.100	0.09892		mg/Kg		99	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09440		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1956		mg/Kg		98	70 - 130
o-Xylene	<0.00201	U	0.100	0.09982		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-3925-A-1-E MSD
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1011		mg/Kg		102	70 - 130	7	35
Toluene	<0.00201	U	0.0990	0.09416		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.09146		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1915		mg/Kg		97	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.09783		mg/Kg		99	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-45275/1-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45275

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

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

Lab Sample ID: MB 880-45275/1-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45275

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/02/23 14:55*	*02/04/23 20:30*	*1*
o-Terphenyl	*95*		*70 - 130*	*02/02/23 14:55*	*02/04/23 20:30*	*1*

Lab Sample ID: LCS 880-45275/2-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45275

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	746.0		mg/Kg		75	70 - 130		
Diesel Range Organics (Over C10-C28)			999	837.9		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Lab Sample ID: LCSD 880-45275/3-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45275

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	825.6		mg/Kg		83	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			999	929.7		mg/Kg		93	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Lab Sample ID: 890-3930-A-1-F MS
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45275

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 F1 F2	1000	1403	F1	mg/Kg		137	70 - 130		
Diesel Range Organics (Over C10-C28)	138		1000	1195		mg/Kg		106	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*11*	*S1-*	*70 - 130*
o-Terphenyl	*12*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

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

Lab Sample ID: 890-3930-A-1-G MSD
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45275

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 F1 F2	998	902.8	F2	mg/Kg		87	70 - 130	43	20
Diesel Range Organics (Over C10-C28)	138		998	1024		mg/Kg		89	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*10*	*S1-*	*70 - 130*
o-Terphenyl	*10*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44791/1-A
Matrix: Solid
Analysis Batch: 44924

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 15:24	1

Lab Sample ID: LCS 880-44791/2-A
Matrix: Solid
Analysis Batch: 44924

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	262.3		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-44791/3-A
Matrix: Solid
Analysis Batch: 44924

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	271.7		mg/Kg		109	90 - 110	4	20

Lab Sample ID: 890-3924-A-11-B MS
Matrix: Solid
Analysis Batch: 44924

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	393	F1	249	670.9	F1	mg/Kg		112	90 - 110		

Lab Sample ID: 890-3924-A-11-C MSD
Matrix: Solid
Analysis Batch: 44924

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	393	F1	249	671.3	F1	mg/Kg		112	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

GC VOA

Analysis Batch: 45230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Total/NA	Solid	8021B	45269
MB 880-45239/5-A	Method Blank	Total/NA	Solid	8021B	45239
MB 880-45269/5-A	Method Blank	Total/NA	Solid	8021B	45269
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	8021B	45269
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45269
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45269
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45269

Prep Batch: 45239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45239/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Total/NA	Solid	5035	
MB 880-45269/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3930-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3930-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Total/NA	Solid	8015B NM	45275
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015B NM	45275
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45275
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45275
890-3930-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	45275
890-3930-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45275

Analysis Batch: 45521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

HPLC/IC

Leach Batch: 44791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Soluble	Solid	DI Leach	
MB 880-44791/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44791/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44791/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3924-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3924-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 44924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3936-1	SS03	Soluble	Solid	300.0	44791
MB 880-44791/1-A	Method Blank	Soluble	Solid	300.0	44791
LCS 880-44791/2-A	Lab Control Sample	Soluble	Solid	300.0	44791
LCSD 880-44791/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44791
890-3924-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	44791
890-3924-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44791

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

Client Sample ID: SS03
Date Collected: 01/20/23 14:40
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3936-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 04:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45318	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45521	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/05/23 00:34	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 18:28	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: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3936-1
SDG: 03D2024146

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3936-1	SS03	Solid	01/20/23 14:40	01/23/23 16:24	0.2'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com, jadams@ensolum.com

Work Order Comments

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

Project Name:	White Falcon 16 State 001H	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2021146	Due Date:	
Project Location:	32.3166, -103.3802	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Julianna Falconeta		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TNM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2	
Total Containers:		Corrected Temperature:	2.0	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS03	S	01/20/23	1440	.2'	C	1		✓	✓	✓

890-3936 Chain of Custody

Preservative Codes

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

Sample Comments

NAPP2301735698

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Amanda Stef	1-23-23 1620	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3936-1
SDG Number: 03D2024146

Login Number: 3936
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: 890-3936-1
SDG Number: 03D2024146

Login Number: 3936
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/5/2023 9:32:49 AM

JOB DESCRIPTION

White Falcon 16 State 001H
SDG NUMBER 03D2024146

JOB NUMBER

890-3937-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

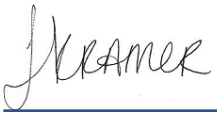
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
2/5/2023 9:32:49 AM

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

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Laboratory Job ID: 890-3937-1
SDG: 03D2024146

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3937-1
Project/Site: White Falcon 16 State 001H SDG: 03D2024146

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.

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: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

Job ID: 890-3937-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3937-1

Receipt
The sample was received on 1/23/2023 4:24 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-3937-1).

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45275 and analytical batch 880-45439 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.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3930-A-1-F MS) and (890-3930-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
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: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

Client Sample ID: SS05

Date Collected: 01/20/23 15:00
Date Received: 01/23/23 16:24
Sample Depth: 0.2'

Lab Sample ID: 890-3937-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 05:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 05:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 05:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 05:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 05:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 05:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/02/23 13:52*	*02/03/23 05:03*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/02/23 13:52*	*02/03/23 05:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**3530**		49.9		mg/Kg			02/05/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 22:30	1
Diesel Range Organics (Over C10-C28)	**2970**		49.9		mg/Kg		02/02/23 14:55	02/04/23 22:30	1
Oil Range Organics (Over C28-C36)	**556**		49.9		mg/Kg		02/02/23 14:55	02/04/23 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/02/23 14:55*	*02/04/23 22:30*	*1*
o-Terphenyl	*92*		*70 - 130*	*02/02/23 14:55*	*02/04/23 22:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.7**		4.96		mg/Kg			01/27/23 21:46	1

Surrogate Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

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)
890-3925-A-1-D MS	Matrix Spike	102	103
890-3925-A-1-E MSD	Matrix Spike Duplicate	102	98
890-3937-1	SS05	115	110
LCS 880-45269/1-A	Lab Control Sample	101	92
LCSD 880-45269/2-A	Lab Control Sample Dup	95	102
MB 880-45239/5-A	Method Blank	89	92
MB 880-45269/5-A	Method Blank	91	88

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)
890-3930-A-1-F MS	Matrix Spike	11 S1-	12 S1-
890-3930-A-1-G MSD	Matrix Spike Duplicate	10 S1-	10 S1-
890-3937-1	SS05	88	92
LCS 880-45275/2-A	Lab Control Sample	74	78
LCSD 880-45275/3-A	Lab Control Sample Dup	82	85
MB 880-45275/1-A	Method Blank	87	95

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45239/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*

Lab Sample ID: MB 880-45269/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45269

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*

Lab Sample ID: LCS 880-45269/1-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09657		mg/Kg		97	70 - 130		
Toluene			0.100	0.09290		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.08916		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1874		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09608		mg/Kg		96	70 - 130		

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09768		mg/Kg		98	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09199		mg/Kg		92	70 - 130	1	35
Ethylbenzene			0.100	0.08490		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1762		mg/Kg		88	70 - 130	6	35
o-Xylene			0.100	0.08972		mg/Kg		90	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3925-A-1-D MS
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.1089		mg/Kg		109	70 - 130
Toluene	<0.00201	U	0.100	0.09892		mg/Kg		99	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09440		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1956		mg/Kg		98	70 - 130
o-Xylene	<0.00201	U	0.100	0.09982		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-3925-A-1-E MSD
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1011		mg/Kg		102	70 - 130	7	35
Toluene	<0.00201	U	0.0990	0.09416		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.09146		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1915		mg/Kg		97	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.09783		mg/Kg		99	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-45275/1-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45275

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

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

Lab Sample ID: MB 880-45275/1-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45275

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/02/23 14:55*	*02/04/23 20:30*	*1*
o-Terphenyl	*95*		*70 - 130*	*02/02/23 14:55*	*02/04/23 20:30*	*1*

Lab Sample ID: LCS 880-45275/2-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45275

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	746.0		mg/Kg		75	70 - 130		
Diesel Range Organics (Over C10-C28)			999	837.9		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Lab Sample ID: LCSD 880-45275/3-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45275

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	825.6		mg/Kg		83	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			999	929.7		mg/Kg		93	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Lab Sample ID: 890-3930-A-1-F MS
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45275

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 F1 F2	1000	1403	F1	mg/Kg		137	70 - 130		
Diesel Range Organics (Over C10-C28)	138		1000	1195		mg/Kg		106	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*11*	*S1-*	*70 - 130*
o-Terphenyl	*12*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

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

Lab Sample ID: 890-3930-A-1-G MSD
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45275

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 F1 F2	998	902.8	F2	mg/Kg		87	70 - 130	43	20
Diesel Range Organics (Over C10-C28)	138		998	1024		mg/Kg		89	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*10*	*S1-*	*70 - 130*
o-Terphenyl	*10*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44792/1-A
Matrix: Solid
Analysis Batch: 44926

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 19:00	1

Lab Sample ID: LCS 880-44792/2-A
Matrix: Solid
Analysis Batch: 44926

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	266.0		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-44792/3-A
Matrix: Solid
Analysis Batch: 44926

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	265.4		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3924-A-20-B MS
Matrix: Solid
Analysis Batch: 44926

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	13.2		248	274.4		mg/Kg		105	90 - 110		

Lab Sample ID: 890-3924-A-20-C MSD
Matrix: Solid
Analysis Batch: 44926

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	13.2		248	275.0		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

GC VOA

Analysis Batch: 45230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Total/NA	Solid	8021B	45269
MB 880-45239/5-A	Method Blank	Total/NA	Solid	8021B	45239
MB 880-45269/5-A	Method Blank	Total/NA	Solid	8021B	45269
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	8021B	45269
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45269
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45269
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45269

Prep Batch: 45239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45239/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Total/NA	Solid	5035	
MB 880-45269/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3930-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3930-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Total/NA	Solid	8015B NM	45275
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015B NM	45275
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45275
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45275
890-3930-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	45275
890-3930-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45275

Analysis Batch: 45520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

HPLC/IC

Leach Batch: 44792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Soluble	Solid	DI Leach	
MB 880-44792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3924-A-20-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3924-A-20-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 44926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3937-1	SS05	Soluble	Solid	300.0	44792
MB 880-44792/1-A	Method Blank	Soluble	Solid	300.0	44792
LCS 880-44792/2-A	Lab Control Sample	Soluble	Solid	300.0	44792
LCSD 880-44792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44792
890-3924-A-20-B MS	Matrix Spike	Soluble	Solid	300.0	44792
890-3924-A-20-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44792

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

Client Sample ID: SS05
Date Collected: 01/20/23 15:00
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3937-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 05:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45319	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45520	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/04/23 22:30	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 21:46	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: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3937-1
SDG: 03D2024146

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3937-1	SS05	Solid	01/20/23 15:00	01/23/23 16:24	0.2'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com, jadams@ensolum.com

Work Order Comments

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

Project Name:	White Falcon 1 State 002H	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024146	Due Date:	
Project Location:	32.736 -103.3802	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Juliana Ortiz Altamirano		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TMM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

Preservative Codes

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS06	S	01/20/23	1300	.2	C	1		✓	✓	✓	NAPP2307356698

890-3937 Chain of Custody

Parameters

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stiff	1-23 23 1624	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3937-1
SDG Number: 03D2024146

Login Number: 3937
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: 890-3937-1
SDG Number: 03D2024146

Login Number: 3937
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/5/2023 9:33:05 AM

JOB DESCRIPTION

White Falcon 16 State 001H
SDG NUMBER 03D2024146

JOB NUMBER

890-3938-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

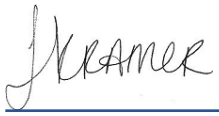
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
2/5/2023 9:33:05 AM

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

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Laboratory Job ID: 890-3938-1
SDG: 03D2024146

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3938-1
Project/Site: White Falcon 16 State 001H SDG: 03D2024146

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.

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: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

Job ID: 890-3938-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3938-1

Receipt
The sample was received on 1/23/2023 4:24 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-3938-1).

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45275 and analytical batch 880-45439 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.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3930-A-1-F MS) and (890-3930-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
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: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

Client Sample ID: SS04

Date Collected: 01/20/23 14:45
Date Received: 01/23/23 16:24
Sample Depth: 0.2'

Lab Sample ID: 890-3938-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 05:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 05:24	1
Ethylbenzene	**0.00463**		0.00200		mg/Kg		02/02/23 13:52	02/03/23 05:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/02/23 13:52	02/03/23 05:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 05:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/02/23 13:52	02/03/23 05:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/02/23 13:52*	*02/03/23 05:24*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/02/23 13:52*	*02/03/23 05:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00463**		0.00399		mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/05/23 09:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/05/23 00:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/05/23 00:54	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/05/23 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/02/23 14:55*	*02/05/23 00:54*	*1*
o-Terphenyl	*96*		*70 - 130*	*02/02/23 14:55*	*02/05/23 00:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			01/27/23 21:52	1

Surrogate Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

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)
890-3925-A-1-D MS	Matrix Spike	102	103
890-3925-A-1-E MSD	Matrix Spike Duplicate	102	98
890-3938-1	SS04	105	103
LCS 880-45269/1-A	Lab Control Sample	101	92
LCSD 880-45269/2-A	Lab Control Sample Dup	95	102
MB 880-45239/5-A	Method Blank	89	92
MB 880-45269/5-A	Method Blank	91	88

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)
890-3930-A-1-F MS	Matrix Spike	11 S1-	12 S1-
890-3930-A-1-G MSD	Matrix Spike Duplicate	10 S1-	10 S1-
890-3938-1	SS04	90	96
LCS 880-45275/2-A	Lab Control Sample	74	78
LCSD 880-45275/3-A	Lab Control Sample Dup	82	85
MB 880-45275/1-A	Method Blank	87	95

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45239/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45239

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 09:32	02/02/23 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/02/23 09:32*	*02/02/23 11:44*	*1*

Lab Sample ID: MB 880-45269/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45269

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/02/23 13:52	02/02/23 22:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/02/23 13:52*	*02/02/23 22:29*	*1*

Lab Sample ID: LCS 880-45269/1-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09657		mg/Kg		97	70 - 130		
Toluene			0.100	0.09290		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.08916		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1874		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09608		mg/Kg		96	70 - 130		

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09768		mg/Kg		98	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09199		mg/Kg		92	70 - 130	1	35
Ethylbenzene			0.100	0.08490		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1762		mg/Kg		88	70 - 130	6	35
o-Xylene			0.100	0.08972		mg/Kg		90	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3925-A-1-D MS
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.1089		mg/Kg		109	70 - 130
Toluene	<0.00201	U	0.100	0.09892		mg/Kg		99	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09440		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1956		mg/Kg		98	70 - 130
o-Xylene	<0.00201	U	0.100	0.09982		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-3925-A-1-E MSD
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1011		mg/Kg		102	70 - 130	7	35
Toluene	<0.00201	U	0.0990	0.09416		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.09146		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1915		mg/Kg		97	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.09783		mg/Kg		99	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-45275/1-A
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45275

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

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

Lab Sample ID: MB 880-45275/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45439 — **Prep Batch: 45275**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 14:55	02/04/23 20:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/02/23 14:55*	*02/04/23 20:30*	*1*
o-Terphenyl	*95*		*70 - 130*	*02/02/23 14:55*	*02/04/23 20:30*	*1*

Lab Sample ID: LCS 880-45275/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45439 — **Prep Batch: 45275**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	746.0		mg/Kg		75	70 - 130		
Diesel Range Organics (Over C10-C28)			999	837.9		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Lab Sample ID: LCSD 880-45275/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45439 — **Prep Batch: 45275**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	825.6		mg/Kg		83	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			999	929.7		mg/Kg		93	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Lab Sample ID: 890-3930-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45439 — **Prep Batch: 45275**

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 F1 F2	1000	1403	F1	mg/Kg		137	70 - 130		
Diesel Range Organics (Over C10-C28)	138		1000	1195		mg/Kg		106	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*11*	*S1-*	*70 - 130*
o-Terphenyl	*12*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

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

Lab Sample ID: 890-3930-A-1-G MSD
Matrix: Solid
Analysis Batch: 45439

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45275

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 F1 F2	998	902.8	F2	mg/Kg		87	70 - 130	43	20
Diesel Range Organics (Over C10-C28)	138		998	1024		mg/Kg		89	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*10*	*S1-*	*70 - 130*
o-Terphenyl	*10*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44792/1-A
Matrix: Solid
Analysis Batch: 44926

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 19:00	1

Lab Sample ID: LCS 880-44792/2-A
Matrix: Solid
Analysis Batch: 44926

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	266.0		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-44792/3-A
Matrix: Solid
Analysis Batch: 44926

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	265.4		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3924-A-20-B MS
Matrix: Solid
Analysis Batch: 44926

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	13.2		248	274.4		mg/Kg		105	90 - 110		

Lab Sample ID: 890-3924-A-20-C MSD
Matrix: Solid
Analysis Batch: 44926

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	13.2		248	275.0		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

GC VOA

Analysis Batch: 45230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Total/NA	Solid	8021B	45269
MB 880-45239/5-A	Method Blank	Total/NA	Solid	8021B	45239
MB 880-45269/5-A	Method Blank	Total/NA	Solid	8021B	45269
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	8021B	45269
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45269
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45269
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45269

Prep Batch: 45239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45239/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Total/NA	Solid	5035	
MB 880-45269/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3930-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3930-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Total/NA	Solid	8015B NM	45275
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015B NM	45275
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45275
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45275
890-3930-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	45275
890-3930-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45275

Analysis Batch: 45522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

HPLC/IC

Leach Batch: 44792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Soluble	Solid	DI Leach	
MB 880-44792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3924-A-20-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3924-A-20-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 44926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3938-1	SS04	Soluble	Solid	300.0	44792
MB 880-44792/1-A	Method Blank	Soluble	Solid	300.0	44792
LCS 880-44792/2-A	Lab Control Sample	Soluble	Solid	300.0	44792
LCSD 880-44792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44792
890-3924-A-20-B MS	Matrix Spike	Soluble	Solid	300.0	44792
890-3924-A-20-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44792

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

Client Sample ID: SS04
Date Collected: 01/20/23 14:45
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3938-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 05:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45320	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45522	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/05/23 00:54	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 21:52	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: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-3938-1
SDG: 03D2024146

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3938-1	SS04	Solid	01/20/23 14:45	01/23/23 16:24	0.2'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com, jadams@ensolum.com

Work Order Comments

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

Project Name:	White Falcon 16 State 002H	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024146	Due Date:	
Project Location:	32.3866, -103.3802	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Julianna Falcomata		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TMM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2	
Total Containers:		Corrected Temperature:	2.0	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS04	S	01/20/23	1445	.2'	C	1		✓	✓	✓

ANALYSIS REQUEST

890-3938 Chain of Custody

Preservative Codes

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

Sample Comments

NAPP2501735698

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Julianna Falcomata	Amanda Stutz	1-23-23 1624	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3938-1
SDG Number: 03D2024146

Login Number: 3938
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: 890-3938-1
SDG Number: 03D2024146

Login Number: 3938
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/28/2023 2:40:16 PM

JOB DESCRIPTION

White Falcon 16 State 001H
SDG NUMBER 03D2024164

JOB NUMBER

890-4160-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

Eurofins Carlsbad

Job Notes

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

Authorization

Generated
2/28/2023 2:40:16 PM

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

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Laboratory Job ID: 890-4160-1
SDG: 03D2024164

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-4160-1
Project/Site: White Falcon 16 State 001H SDG: 03D2024164

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, 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: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Job ID: 890-4160-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4160-1

Receipt
The samples were received on 2/20/2023 3:42 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS06 (890-4160-1), SS07 (890-4160-2), SS08 (890-4160-3), FS01 (890-4160-4), FS02 (890-4160-5), SS06A (890-4160-6), SS07A (890-4160-7) and SS08A (890-4160-8).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-47216/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-47310 and analytical batch 880-47287 was outside the control limits.

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 880-47146 and analytical batch 880-47130 was outside the upper control limits.

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: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS06

Lab Sample ID: 890-4160-1
Matrix: Solid
Date Collected: 02/20/23 13:00
Date Received: 02/20/23 15:42
Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 04:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*02/24/23 16:54*	*02/28/23 04:10*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/24/23 16:54*	*02/28/23 04:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 17:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 17:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*02/24/23 09:54*	*02/24/23 17:38*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/24/23 09:54*	*02/24/23 17:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.9**		5.02		mg/Kg			02/26/23 23:53	1

Client Sample ID: SS07

Lab Sample ID: 890-4160-2
Matrix: Solid
Date Collected: 02/20/23 13:05
Date Received: 02/20/23 15:42
Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 04:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 04:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/24/23 16:54*	*02/28/23 04:36*	*1*

Client Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS07

Lab Sample ID: 890-4160-2
Matrix: Solid
Date Collected: 02/20/23 13:05
Date Received: 02/20/23 15:42
Sample Depth: 0.2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/24/23 16:54*	*02/28/23 04:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/24/23 09:54	02/24/23 18:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/24/23 09:54	02/24/23 18:11	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/24/23 09:54	02/24/23 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*117*		*70 - 130*	*02/24/23 09:54*	*02/24/23 18:11*	*1*
o-Terphenyl	*111*		*70 - 130*	*02/24/23 09:54*	*02/24/23 18:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.8**		4.98	mg/Kg			02/27/23 00:10	1

Client Sample ID: SS08

Lab Sample ID: 890-4160-3
Matrix: Solid
Date Collected: 02/20/23 13:10
Date Received: 02/20/23 15:42
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		02/24/23 16:54	02/28/23 05:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/24/23 16:54	02/28/23 05:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/24/23 16:54	02/28/23 05:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/24/23 16:54	02/28/23 05:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/24/23 16:54	02/28/23 05:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/24/23 16:54	02/28/23 05:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/24/23 16:54*	*02/28/23 05:01*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/24/23 16:54*	*02/28/23 05:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/27/23 12:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS08

Lab Sample ID: 890-4160-3
Matrix: Solid
Date Collected: 02/20/23 13:10
Date Received: 02/20/23 15:42
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 18:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 18:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/24/23 09:54*	*02/24/23 18:33*	*1*
o-Terphenyl	*98*		*70 - 130*	*02/24/23 09:54*	*02/24/23 18:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.3**		5.00		mg/Kg			02/27/23 00:16	1

Client Sample ID: FS01

Lab Sample ID: 890-4160-4
Matrix: Solid
Date Collected: 02/20/23 13:15
Date Received: 02/20/23 15:42
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		02/24/23 16:54	02/28/23 05:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 05:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 05:27	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/24/23 16:54	02/28/23 05:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 05:27	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/24/23 16:54	02/28/23 05:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/24/23 16:54*	*02/28/23 05:27*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*02/24/23 16:54*	*02/28/23 05:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**156**		49.8		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 18:55	1
Diesel Range Organics (Over C10-C28)	**156**		49.8		mg/Kg		02/24/23 09:54	02/24/23 18:55	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/24/23 09:54*	*02/24/23 18:55*	*1*
o-Terphenyl	*95*		*70 - 130*	*02/24/23 09:54*	*02/24/23 18:55*	*1*

Client Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: FS01

Lab Sample ID: 890-4160-4
Matrix: Solid
Date Collected: 02/20/23 13:15
Date Received: 02/20/23 15:42
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.1		4.95		mg/Kg			02/27/23 00:21	1

Client Sample ID: FS02

Lab Sample ID: 890-4160-5
Matrix: Solid
Date Collected: 02/20/23 13:20
Date Received: 02/20/23 15:42
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		02/24/23 16:54	02/28/23 05:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/24/23 16:54	02/28/23 05:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/24/23 16:54	02/28/23 05:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/24/23 16:54	02/28/23 05:53	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/24/23 16:54	02/28/23 05:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/24/23 16:54	02/28/23 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/24/23 16:54*	*02/28/23 05:53*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/24/23 16:54*	*02/28/23 05:53*	*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			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 19:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 19:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/23 09:54	02/24/23 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*02/24/23 09:54*	*02/24/23 19:17*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/24/23 09:54*	*02/24/23 19:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	193		5.01		mg/Kg			02/27/23 00:27	1

Client Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS06A

Lab Sample ID: 890-4160-6
Matrix: Solid
Date Collected: 02/20/23 14:10
Date Received: 02/20/23 15:42
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 06:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 06:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 06:20	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/24/23 16:54	02/28/23 06:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 06:20	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/24/23 16:54	02/28/23 06:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*02/24/23 16:54*	*02/28/23 06:20*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/24/23 16:54*	*02/28/23 06:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 19:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 19:39	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*02/24/23 09:54*	*02/24/23 19:39*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/24/23 09:54*	*02/24/23 19:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.3**		5.01		mg/Kg			02/27/23 00:44	1

Client Sample ID: SS07A

Lab Sample ID: 890-4160-7
Matrix: Solid
Date Collected: 02/20/23 14:15
Date Received: 02/20/23 15:42
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 06:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 06:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 06:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 06:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 06:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 06:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/24/23 16:54*	*02/28/23 06:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS07A

Date Collected: 02/20/23 14:15
Date Received: 02/20/23 15:42
Sample Depth: 1'

Lab Sample ID: 890-4160-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/24/23 16:54*	*02/28/23 06:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/23 12:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/27/23 12:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 20:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 20:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/23 09:54	02/24/23 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/24/23 09:54*	*02/24/23 20:02*	*1*
o-Terphenyl	*98*		*70 - 130*	*02/24/23 09:54*	*02/24/23 20:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.5**		4.97		mg/Kg			02/27/23 00:50	1

Client Sample ID: SS08A

Date Collected: 02/20/23 14:20
Date Received: 02/20/23 15:42
Sample Depth: 1'

Lab Sample ID: 890-4160-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 07:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 07:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 07:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 07:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/24/23 16:54	02/28/23 07:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/24/23 16:54	02/28/23 07:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/24/23 16:54*	*02/28/23 07:14*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*02/24/23 16:54*	*02/28/23 07:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/23 12:13	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			02/27/23 12:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS08A

Lab Sample ID: 890-4160-8
Matrix: Solid
Date Collected: 02/20/23 14:20
Date Received: 02/20/23 15:42
Sample Depth: 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		02/24/23 09:54	02/24/23 20:24	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 20:24	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/24/23 09:54	02/24/23 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/24/23 09:54*	*02/24/23 20:24*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/24/23 09:54*	*02/24/23 20:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.0**		4.99		mg/Kg			02/27/23 00:55	1

Surrogate Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

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)
890-4160-1	SS06	95	98
890-4160-1 MS	SS06	110	119
890-4160-1 MSD	SS06	110	97
890-4160-2	SS07	113	104
890-4160-3	SS08	113	98
890-4160-4	FS01	115	116
890-4160-5	FS02	118	108
890-4160-6	SS06A	109	106
890-4160-7	SS07A	103	99
890-4160-8	SS08A	113	111
LCS 880-47216/1-A	Lab Control Sample	116	116
LCSD 880-47216/2-A	Lab Control Sample Dup	111	103
MB 880-47216/5-A	Method Blank	65 S1-	92
MB 880-47310/5-A	Method Blank	67 S1-	93

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)
890-4147-A-1-G MS	Matrix Spike	118	99
890-4147-A-1-H MSD	Matrix Spike Duplicate	115	99
890-4160-1	SS06	97	97
890-4160-2	SS07	117	111
890-4160-3	SS08	101	98
890-4160-4	FS01	98	95
890-4160-5	FS02	119	108
890-4160-6	SS06A	93	87
890-4160-7	SS07A	113	98
890-4160-8	SS08A	89	85
LCS 880-47146/2-A	Lab Control Sample	111	99
LCSD 880-47146/3-A	Lab Control Sample Dup	114	104
MB 880-47146/1-A	Method Blank	139 S1+	134 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-47216/5-A
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47216

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 03:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 03:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 03:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/24/23 16:54	02/28/23 03:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/24/23 16:54	02/28/23 03:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/24/23 16:54	02/28/23 03:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/24/23 16:54*	*02/28/23 03:44*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/24/23 16:54*	*02/28/23 03:44*	*1*

Lab Sample ID: LCS 880-47216/1-A
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47216

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1165		mg/Kg		117	70 - 130		
Toluene			0.100	0.1136		mg/Kg		114	70 - 130		
Ethylbenzene			0.100	0.1062		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.2169		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1199		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-47216/2-A
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47216

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1091		mg/Kg		109	70 - 130	7	35
Toluene			0.100	0.1066		mg/Kg		107	70 - 130	6	35
Ethylbenzene			0.100	0.1070		mg/Kg		107	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2171		mg/Kg		109	70 - 130	0	35
o-Xylene			0.100	0.1159		mg/Kg		116	70 - 130	3	35

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

Lab Sample ID: 890-4160-1 MS
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: SS06
Prep Type: Total/NA
Prep Batch: 47216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.1158		mg/Kg		115	70 - 130		
Toluene	<0.00199	U	0.101	0.08584		mg/Kg		85	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

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

Lab Sample ID: 890-4160-1 MS
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: SS06
Prep Type: Total/NA
Prep Batch: 47216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.101	0.08169		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1723		mg/Kg		86	70 - 130
o-Xylene	<0.00199	U	0.101	0.09895		mg/Kg		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*

Lab Sample ID: 890-4160-1 MSD
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: SS06
Prep Type: Total/NA
Prep Batch: 47216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.09305		mg/Kg		94	70 - 130	22	35
Toluene	<0.00199	U	0.0990	0.08183		mg/Kg		83	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0990	0.07808		mg/Kg		79	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1650		mg/Kg		83	70 - 130	4	35
o-Xylene	<0.00199	U	0.0990	0.09597		mg/Kg		97	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 880-47310/5-A
Matrix: Solid
Analysis Batch: 47287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47310

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/27/23 12:05	02/27/23 14:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/27/23 12:05	02/27/23 14:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/27/23 12:05	02/27/23 14:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/27/23 12:05	02/27/23 14:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/27/23 12:05	02/27/23 14:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/27/23 12:05	02/27/23 14:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*02/27/23 12:05*	*02/27/23 14:21*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/27/23 12:05*	*02/27/23 14:21*	*1*

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

Lab Sample ID: MB 880-47146/1-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47146

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/24/23 08:14	02/24/23 08:40	1

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

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

Lab Sample ID: MB 880-47146/1-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47146

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		02/24/23 08:14	02/24/23 08:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/23 08:14	02/24/23 08:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*139*	*S1+*	*70 - 130*	*02/24/23 08:14*	*02/24/23 08:40*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*02/24/23 08:14*	*02/24/23 08:40*	*1*

Lab Sample ID: LCS 880-47146/2-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47146

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	915.9		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	925.7		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Lab Sample ID: LCSD 880-47146/3-A
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47146

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	972.6		mg/Kg		97	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	957.1		mg/Kg		96	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: 890-4147-A-1-G MS
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 47146

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	997	1106		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	942.9		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

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

Lab Sample ID: 890-4147-A-1-H MSD
Matrix: Solid
Analysis Batch: 47130

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 47146

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	1077		mg/Kg		108	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	938.5		mg/Kg		92	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-47101/1-A
Matrix: Solid
Analysis Batch: 47257

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/26/23 23:36	1

Lab Sample ID: LCS 880-47101/2-A
Matrix: Solid
Analysis Batch: 47257

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	253.6		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-47101/3-A
Matrix: Solid
Analysis Batch: 47257

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	257.0		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 890-4160-1 MS
Matrix: Solid
Analysis Batch: 47257

Client Sample ID: SS06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	37.9		251	266.7		mg/Kg		91	90 - 110		

Lab Sample ID: 890-4160-1 MSD
Matrix: Solid
Analysis Batch: 47257

Client Sample ID: SS06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	37.9		251	269.9		mg/Kg		92	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

GC VOA

Prep Batch: 47216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Total/NA	Solid	5035	
890-4160-2	SS07	Total/NA	Solid	5035	
890-4160-3	SS08	Total/NA	Solid	5035	
890-4160-4	FS01	Total/NA	Solid	5035	
890-4160-5	FS02	Total/NA	Solid	5035	
890-4160-6	SS06A	Total/NA	Solid	5035	
890-4160-7	SS07A	Total/NA	Solid	5035	
890-4160-8	SS08A	Total/NA	Solid	5035	
MB 880-47216/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47216/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47216/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4160-1 MS	SS06	Total/NA	Solid	5035	
890-4160-1 MSD	SS06	Total/NA	Solid	5035	

Analysis Batch: 47287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Total/NA	Solid	8021B	47216
890-4160-2	SS07	Total/NA	Solid	8021B	47216
890-4160-3	SS08	Total/NA	Solid	8021B	47216
890-4160-4	FS01	Total/NA	Solid	8021B	47216
890-4160-5	FS02	Total/NA	Solid	8021B	47216
890-4160-6	SS06A	Total/NA	Solid	8021B	47216
890-4160-7	SS07A	Total/NA	Solid	8021B	47216
890-4160-8	SS08A	Total/NA	Solid	8021B	47216
MB 880-47216/5-A	Method Blank	Total/NA	Solid	8021B	47216
MB 880-47310/5-A	Method Blank	Total/NA	Solid	8021B	47310
LCS 880-47216/1-A	Lab Control Sample	Total/NA	Solid	8021B	47216
LCSD 880-47216/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47216
890-4160-1 MS	SS06	Total/NA	Solid	8021B	47216
890-4160-1 MSD	SS06	Total/NA	Solid	8021B	47216

Prep Batch: 47310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-47310/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 47457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Total/NA	Solid	Total BTEX	
890-4160-2	SS07	Total/NA	Solid	Total BTEX	
890-4160-3	SS08	Total/NA	Solid	Total BTEX	
890-4160-4	FS01	Total/NA	Solid	Total BTEX	
890-4160-5	FS02	Total/NA	Solid	Total BTEX	
890-4160-6	SS06A	Total/NA	Solid	Total BTEX	
890-4160-7	SS07A	Total/NA	Solid	Total BTEX	
890-4160-8	SS08A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 47130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Total/NA	Solid	8015B NM	47146

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

GC Semi VOA (Continued)

Analysis Batch: 47130 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-2	SS07	Total/NA	Solid	8015B NM	47146
890-4160-3	SS08	Total/NA	Solid	8015B NM	47146
890-4160-4	FS01	Total/NA	Solid	8015B NM	47146
890-4160-5	FS02	Total/NA	Solid	8015B NM	47146
890-4160-6	SS06A	Total/NA	Solid	8015B NM	47146
890-4160-7	SS07A	Total/NA	Solid	8015B NM	47146
890-4160-8	SS08A	Total/NA	Solid	8015B NM	47146
MB 880-47146/1-A	Method Blank	Total/NA	Solid	8015B NM	47146
LCS 880-47146/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47146
LCSD 880-47146/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47146
890-4147-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	47146
890-4147-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47146

Prep Batch: 47146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Total/NA	Solid	8015NM Prep	
890-4160-2	SS07	Total/NA	Solid	8015NM Prep	
890-4160-3	SS08	Total/NA	Solid	8015NM Prep	
890-4160-4	FS01	Total/NA	Solid	8015NM Prep	
890-4160-5	FS02	Total/NA	Solid	8015NM Prep	
890-4160-6	SS06A	Total/NA	Solid	8015NM Prep	
890-4160-7	SS07A	Total/NA	Solid	8015NM Prep	
890-4160-8	SS08A	Total/NA	Solid	8015NM Prep	
MB 880-47146/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47146/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47146/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4147-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4147-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Total/NA	Solid	8015 NM	
890-4160-2	SS07	Total/NA	Solid	8015 NM	
890-4160-3	SS08	Total/NA	Solid	8015 NM	
890-4160-4	FS01	Total/NA	Solid	8015 NM	
890-4160-5	FS02	Total/NA	Solid	8015 NM	
890-4160-6	SS06A	Total/NA	Solid	8015 NM	
890-4160-7	SS07A	Total/NA	Solid	8015 NM	
890-4160-8	SS08A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 47101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Soluble	Solid	DI Leach	
890-4160-2	SS07	Soluble	Solid	DI Leach	
890-4160-3	SS08	Soluble	Solid	DI Leach	
890-4160-4	FS01	Soluble	Solid	DI Leach	
890-4160-5	FS02	Soluble	Solid	DI Leach	
890-4160-6	SS06A	Soluble	Solid	DI Leach	
890-4160-7	SS07A	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

HPLC/IC (Continued)

Leach Batch: 47101 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-8	SS08A	Soluble	Solid	DI Leach	
MB 880-47101/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47101/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47101/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4160-1 MS	SS06	Soluble	Solid	DI Leach	
890-4160-1 MSD	SS06	Soluble	Solid	DI Leach	

Analysis Batch: 47257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4160-1	SS06	Soluble	Solid	300.0	47101
890-4160-2	SS07	Soluble	Solid	300.0	47101
890-4160-3	SS08	Soluble	Solid	300.0	47101
890-4160-4	FS01	Soluble	Solid	300.0	47101
890-4160-5	FS02	Soluble	Solid	300.0	47101
890-4160-6	SS06A	Soluble	Solid	300.0	47101
890-4160-7	SS07A	Soluble	Solid	300.0	47101
890-4160-8	SS08A	Soluble	Solid	300.0	47101
MB 880-47101/1-A	Method Blank	Soluble	Solid	300.0	47101
LCS 880-47101/2-A	Lab Control Sample	Soluble	Solid	300.0	47101
LCSD 880-47101/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47101
890-4160-1 MS	SS06	Soluble	Solid	300.0	47101
890-4160-1 MSD	SS06	Soluble	Solid	300.0	47101

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS06
Date Collected: 02/20/23 13:00
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 04:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 17:38	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/26/23 23:53	CH	EET MID

Client Sample ID: SS07
Date Collected: 02/20/23 13:05
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 04:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 18:11	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/27/23 00:10	CH	EET MID

Client Sample ID: SS08
Date Collected: 02/20/23 13:10
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 05:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 18:33	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/27/23 00:16	CH	EET MID

Client Sample ID: FS01
Date Collected: 02/20/23 13:15
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-4
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	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 05:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: FS01
Date Collected: 02/20/23 13:15
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-4
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			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 18:55	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/27/23 00:21	CH	EET MID

Client Sample ID: FS02
Date Collected: 02/20/23 13:20
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-5
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			4.97 g	5 mL	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 05:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 19:17	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/27/23 00:27	CH	EET MID

Client Sample ID: SS06A
Date Collected: 02/20/23 14:10
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 06:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 19:39	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/27/23 00:44	CH	EET MID

Client Sample ID: SS07A
Date Collected: 02/20/23 14:15
Date Received: 02/20/23 15:42

Lab Sample ID: 890-4160-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 06:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 20:02	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Client Sample ID: SS07A

Lab Sample ID: 890-4160-7
Matrix: Solid
Date Collected: 02/20/23 14:15
Date Received: 02/20/23 15:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/27/23 00:50	CH	EET MID

Client Sample ID: SS08A

Lab Sample ID: 890-4160-8
Matrix: Solid
Date Collected: 02/20/23 14:20
Date Received: 02/20/23 15:42

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	47216	02/24/23 16:54	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47287	02/28/23 07:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47457	02/28/23 12:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			47318	02/27/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	47146	02/24/23 09:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47130	02/24/23 20:24	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	47101	02/23/23 15:20	KS	EET MID
Soluble	Analysis	300.0		1			47257	02/27/23 00:55	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: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 890-4160-1
SDG: 03D2024164

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4160-1	SS06	Solid	02/20/23 13:00	02/20/23 15:42	0.2'
890-4160-2	SS07	Solid	02/20/23 13:05	02/20/23 15:42	0.2'
890-4160-3	SS08	Solid	02/20/23 13:10	02/20/23 15:42	0.5'
890-4160-4	FS01	Solid	02/20/23 13:15	02/20/23 15:42	0.5'
890-4160-5	FS02	Solid	02/20/23 13:20	02/20/23 15:42	0.5'
890-4160-6	SS06A	Solid	02/20/23 14:10	02/20/23 15:42	1'
890-4160-7	SS07A	Solid	02/20/23 14:15	02/20/23 15:42	1'
890-4160-8	SS08A	Solid	02/20/23 14:20	02/20/23 15:42	1'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	White Falcon 16 State 004H	Turn Around	
Project Number:	03D2024161	☑ Routine ☐ Rush	
Project Location:	32.3616, -103.3502	Due Date:	
Sampler's Name:	Julianna Falcomata	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TM007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.6	
Total Containers:		Corrected Temperature:	2.4	

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX	TPH	CHLORIDES	Sample Comments
SS06	S	12-20-23	1300	.2'	C	1					
SS07	S		1305	.2'	C	1					
SS08	S		1310	.5'	C	1					
FS01	S		1315	.5'	C	1					
FS02	S		1320	.5'	C	1					
SS06A	S		1410	1'	C	1					
SS07A	S		1415	1'	C	1					
SS08A	S		1420	1'	C	1					

890-4160 Chain of Custody

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stitt	12-20-23 1542			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4160-1
SDG Number: 03D2024164

Login Number: 4160
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: 890-4160-1
SDG Number: 03D2024164

Login Number: 4160
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/22/23 12:07 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/3/2023 1:37:48 PM

JOB DESCRIPTION

White Falcon 16 State 001H
SDG NUMBER 03D2024146

JOB NUMBER

880-26513-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

Authorization

Generated
4/3/2023 1:37:48 PM

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

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Laboratory Job ID: 880-26513-1
SDG: 03D2024146

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Job ID: 880-26513-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26513-1

Receipt
The sample was received on 3/27/2023 4:49 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-26413-A-1-E). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-49995/5), (LCS 880-49932/2-A) and (LCSD 880-49932/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-26347-A-4-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-49932 and analytical batch 880-49995 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-49932 and analytical batch 880-49995 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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 for preparation batch 880-49866 and analytical batch 880-49867 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Client Sample ID: FS01A

Date Collected: 03/27/23 10:40
Date Received: 03/27/23 16:49

Lab Sample ID: 880-26513-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/29/23 15:00	03/30/23 13:33	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/29/23 15:00	03/30/23 13:33	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/29/23 15:00	03/30/23 13:33	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/29/23 15:00	03/30/23 13:33	1
o-Xylene	**0.00219**		0.00198		mg/Kg		03/29/23 15:00	03/30/23 13:33	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/29/23 15:00	03/30/23 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/29/23 15:00*	*03/30/23 13:33*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/29/23 15:00*	*03/30/23 13:33*	*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			03/30/23 15:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/03/23 14:09	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		03/30/23 12:21	03/31/23 15:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		03/30/23 12:21	03/31/23 15:39	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/30/23 12:21	03/31/23 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/30/23 12:21*	*03/31/23 15:39*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/30/23 12:21*	*03/31/23 15:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**133**	**F1**	5.02		mg/Kg			03/29/23 16:16	1

Surrogate Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-26513-1	FS01A	97	96										
LCS 880-49806/1-A	Lab Control Sample	90	114										
LCSD 880-49806/2-A	Lab Control Sample Dup	92	114										
MB 880-49806/5-A	Method Blank	72	97										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-26513-1	FS01A	100	121										
LCS 880-49932/2-A	Lab Control Sample	139 S1+	159 S1+										
LCSD 880-49932/3-A	Lab Control Sample Dup	167 S1+	187 S1+										
MB 880-49932/1-A	Method Blank	104	130										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49806/5-A
Matrix: Solid
Analysis Batch: 49916

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49806

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/23 10:15	03/30/23 10:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/23 10:15	03/30/23 10:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/23 10:15	03/30/23 10:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/29/23 10:15	03/30/23 10:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/23 10:15	03/30/23 10:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/29/23 10:15	03/30/23 10:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*03/29/23 10:15*	*03/30/23 10:47*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/29/23 10:15*	*03/30/23 10:47*	*1*

Lab Sample ID: LCS 880-49806/1-A
Matrix: Solid
Analysis Batch: 49916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49806

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1279		mg/Kg		128	70 - 130		
Toluene			0.100	0.1063		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.09803		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.2012		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.1006		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 880-49806/2-A
Matrix: Solid
Analysis Batch: 49916

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49806

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1170		mg/Kg		117	70 - 130	9	35
Toluene			0.100	0.09934		mg/Kg		99	70 - 130	7	35
Ethylbenzene			0.100	0.09051		mg/Kg		91	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1833		mg/Kg		92	70 - 130	9	35
o-Xylene			0.100	0.09201		mg/Kg		92	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

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

Lab Sample ID: MB 880-49932/1-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49932

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/30/23 12:21	03/31/23 09:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/30/23 12:21	03/31/23 09:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/30/23 12:21	03/31/23 09:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/30/23 12:21*	*03/31/23 09:25*	*1*
o-Terphenyl	*130*		*70 - 130*	*03/30/23 12:21*	*03/31/23 09:25*	*1*

Lab Sample ID: LCS 880-49932/2-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49932

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1204		mg/Kg		120	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1703	*+	mg/Kg		170	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*139*	*S1+*	*70 - 130*
o-Terphenyl	*159*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-49932/3-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49932

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1476	*+	mg/Kg		148	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	2050	*+	mg/Kg		205	70 - 130	18	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*167*	*S1+*	*70 - 130*
o-Terphenyl	*187*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49866/1-A
Matrix: Solid
Analysis Batch: 49867

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/29/23 16:01	1

QC Sample Results

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-49866/2-A
Matrix: Solid
Analysis Batch: 49867

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.7		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-49866/3-A
Matrix: Solid
Analysis Batch: 49867

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	255.6		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-26513-1 MS
Matrix: Solid
Analysis Batch: 49867

Client Sample ID: FS01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	133	F1	251	415.8	F1	mg/Kg		113	90 - 110		

Lab Sample ID: 880-26513-1 MSD
Matrix: Solid
Analysis Batch: 49867

Client Sample ID: FS01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	133	F1	251	411.2	F1	mg/Kg		111	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

GC VOA

Prep Batch: 49806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Total/NA	Solid	5035	
MB 880-49806/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49806/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49806/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 49916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Total/NA	Solid	8021B	49806
MB 880-49806/5-A	Method Blank	Total/NA	Solid	8021B	49806
LCS 880-49806/1-A	Lab Control Sample	Total/NA	Solid	8021B	49806
LCSD 880-49806/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49806

Analysis Batch: 49977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Total/NA	Solid	8015NM Prep	
MB 880-49932/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49932/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49932/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Total/NA	Solid	8015B NM	49932
MB 880-49932/1-A	Method Blank	Total/NA	Solid	8015B NM	49932
LCS 880-49932/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49932
LCSD 880-49932/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49932

Analysis Batch: 50202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Soluble	Solid	DI Leach	
MB 880-49866/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49866/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49866/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26513-1 MS	FS01A	Soluble	Solid	DI Leach	
880-26513-1 MSD	FS01A	Soluble	Solid	DI Leach	

Analysis Batch: 49867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26513-1	FS01A	Soluble	Solid	300.0	49866
MB 880-49866/1-A	Method Blank	Soluble	Solid	300.0	49866
LCS 880-49866/2-A	Lab Control Sample	Soluble	Solid	300.0	49866

QC Association Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

HPLC/IC (Continued)

Analysis Batch: 49867 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-49866/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49866
880-26513-1 MS	FS01A	Soluble	Solid	300.0	49866
880-26513-1 MSD	FS01A	Soluble	Solid	300.0	49866

Lab Chronicle

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Client Sample ID: FS01A

Date Collected: 03/27/23 10:40
Date Received: 03/27/23 16:49

Lab Sample ID: 880-26513-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			49806	MNR	EET MID	03/29/23 15:00
Total/NA	Analysis	8021B		1	49916	MNR	EET MID	03/30/23 13:33
Total/NA	Analysis	Total BTEX		1	49977	SM	EET MID	03/30/23 15:18
Total/NA	Analysis	8015 NM		1	50202	SM	EET MID	04/03/23 14:09
Total/NA	Prep	8015NM Prep			49932	AJ	EET MID	03/30/23 12:21
Total/NA	Analysis	8015B NM		1	49995	SM	EET MID	03/31/23 15:39
Soluble	Leach	DI Leach			49866	KS	EET MID	03/29/23 15:17
Soluble	Analysis	300.0		1	49867	SMC	EET MID	03/29/23 16:16

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: White Falcon 16 State 001H

Job ID: 880-26513-1
SDG: 03D2024146

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-26513-1	FS01A	Solid	03/27/23 10:40	03/27/23 16:49

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: 26513

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	White Falcon 16 State 001H	Turn Around	
Project Number:	03D2024146	☐ Routine ☒ Rush	
Project Location	32.1366, -103.3802	Due Date:	24 hrs
Sampler's Name.	Ron Hays	TAT starts the day received by the lab, if received by 4.30pm	
PO #			

SAMPLE RECEIPT			
Temp Blank.	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IRM-007
Cooler Custody Seals.	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading	1.2
Total Containers:		Corrected Temperature:	1.0

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH	BTEX	Cl-	Sample Comments
FS01A	S	3/27/23	1040	0.75'	G	1		X	X	X	

RH 3-27-23

880-26513 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Ron Hm	Aurora Sitt	3/27/23 1649			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-26513-1
SDG Number: 03D2024146

Login Number: 26513
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Midland

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

ENSOLUM

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	NAPP2301735698
District RP	
Facility ID	fAPP2203459585
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Charles Beauvais	Contact Telephone	(575) 988-2043
Contact email	Charles.R.Beauvais@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2301735698
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.1366 Longitude -103.3802

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	White Falcon 16 State 001H	Site Type	Tank Battery
Date Release Discovered	January 8, 2023	API# *(if applicable)*	30-025-42757

Unit Letter	Section	Township	Range	County
D	16	25S	35E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 0.0074	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by regulator malfunction sending oil to the flare resulting in a flare fire. No fluid was recovered due to the fire burning off any standing fluid. The release resulted in a flare fire on the pad.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2301735698
District RP	
Facility ID	fAPP2203459585
Application ID	

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

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Immediate notice was given by Charles Beauvais via e-mail January 9, 2023 at 1:13 pm to ocd.enviro@state.nm.us.

Initial Response

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

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

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

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

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

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 1/17/2023

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

OCD Only

Received by: Jocelyn Harimon Date: 01/17/2023

Spill Calculation - Subsurface Spill - Rectangle											Remediation Recommendation	
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Average Depth (in.)	On/Off Pad (dropdown)	Soil Spilled-Fluid Saturation (%.)	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture (%.)	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)	Total Estimated Contaminated Soil, uncompacted, 25% (yd^3.)	Current Rule of Thumb - RMR Handover Volume, (yd^3.)
Rectangle A	30.0	15.0	0.0	On-Pad	10.50%	0.07	0.01		0.00	0.01	0.02	
Rectangle B	6.0	4.0	0.0	On-Pad	10.50%	0.00	0.00		0.00	0.00	0.00	
Rectangle C						0.00					0.00	
Rectangle D						0.00					0.00	
Rectangle E						0.00					0.00	
Rectangle F						0.00					0.00	750
Rectangle G						0.00					0.00	
Rectangle H						0.00					0.00	
Rectangle I						0.00					0.00	
						0.00					0.00	
					Total Subsurface Volume Released:		0.0074		0.0000	0.0074	0.02	BU

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 176604
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	1/17/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2301735698
District RP	
Facility ID	fAPP2203459585
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2301735698
District RP	
Facility ID	fAPP2203459585
Application ID	

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

Printed Name: __Jacob Laird_____ Title: _Environmental Engineer_____

Signature: Jacob Laird Date: _____4/6/2023_____

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

OCD Only

Received by: _____Jocelyn Harimon_____ Date: ___04/07/2023___

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2301735698
District RP	
Facility ID	fAPP2203459585
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Jacob Laird Title: Environmental Engineer

Signature: Jacob Laird Date: 4/6/2023

email: Jacob.Laird@conocophillips.com Telephone: 575-703-5482

OCD Only

Received by: Jocelyn Harimon Date: 04/07/2023

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

Closure Approved by: Jennifer Nobui Date: 05/10/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Cc: Nobui, Jennifer, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 02/13/2023)
Date: Wednesday, February 8, 2023 4:30:13 PM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**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.

JH

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

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, February 8, 2023 2:54 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Hadlie Green <hgreen@ensolum.com>
Subject: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 02/13/2023)

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

All,

ConocoPhillips Company (COP) plans to complete final sampling activities at the following sites the week of February 13, 2023.

- Gold Coast 26 Fed 1H/ NAPP2234636400
- Wilder CTB/ NAPP2300343271
- White Falcon 16 State 001H/ NAPP2301735698

Thank you,

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

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 205067

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 205067
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	5/10/2023